# Nepal



Demographic and Health Survey

2011

# Nepal Demographic and Health Survey 2011

Population Division Ministry of Health and Population Government of Nepal Kathmandu, Nepal

> New ERA Kathmandu, Nepal

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Additional information about the survey may be obtained from the Population Division, Ministry of Health and Population, Government of Nepal, Ramshahpath, Kathmandu, Nepal; Telephone: (977-1) 4262987; New ERA, P.O. Box 722, Kathmandu, Nepal; Telephone: (977-1) 4423176/4413603; Fax: (977-1) 4419562; E-mail: info@newera.wlink.com.np. Information about the DHS program may be obtained from MEASURE DHS, ICF International, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 301-572-0200, Fax: 301-572-0999, E-mail: reports@measuredhs.com, Internet: http://www.measuredhs.com.

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# FOREWORD

The 2011 Nepal Demographic and Health Survey is the fourth nationally representative comprehensive survey conducted as part of the worldwide Demographic and Health Surveys (DHS) project in the country. The survey was implemented by New ERA under the aegis of the Population Division, Ministry of Health and Population. Technical support for this survey was provided by ICF International with financial support from the United States Agency for International Development (USAID) through its mission in Nepal.

The primary objective of the 2011 NDHS is to provide up-to-date and reliable data on different issues related to population and health, which provides guidance in planning, implementing, monitoring, and evaluating health programs in Nepal. The long term objective of the survey is to strengthen the technical capacity of the local institutions to plan, conduct, process and analyze data from complex national population and health surveys. The survey includes topics on fertility levels and determinants, family planning, fertility preferences, childhood mortality, children and women's nutritional status, the utilization of maternal and child health services, knowledge of HIV/AIDS and STIs, women's empowerment and for the first time, information on women facing different types of domestic violence. The survey also reports on the anemia status of women age 15-49 and children age 6-59 months.

In addition to providing national estimates, the survey report also provides disaggregated data at the level of various domains such as ecological region, development regions and for urban and rural areas. This being the fourth survey of its kind, there is considerable trend information on reproductive and health care over the past 15 years. Moreover, the 2011 NDHS is comparable to similar surveys conducted in other countries and therefore, affords an international comparison. The 2011 NDHS also adds to the vast and growing international database on demographic and health-related variables.

The 2011 NDHS collected demographic and health information from a nationally representative sample of 10,826 households, which yielded completed interviews with 12,674 women age 15-49 in all selected households and with 4, 121 men age 15-49 in every second household.

This survey is the concerted effort of various individuals and institutions, and it is with great pleasure that I acknowledge the work that has gone into producing this useful document. The participation and cooperation that was extended by the members of the Technical Advisory Committee in the different phases of the survey is greatly appreciated.

I would like to extend my appreciation to USAID/Nepal for providing financial support for the survey. I would also like to acknowledge ICF International for its technical assistance at all stages of the survey. My sincere thanks go to the New ERA study team for their generous effort in carrying out the survey work. I also would like to thank the Population Division of the Ministry of Health and Population for its effort and dedication in the completion of the 2011 NDHS.

Praveen Mishra Secretary Ministry of Health and Population

The 2011 Nepal Demographic and Health Survey (NDHS) was conducted under the aegis of the Population Division, Ministry of Health and Population of the Government of Nepal. The United States Agency for International Development (USAID) provided financial support through its mission in Nepal while technical assistance was provided by ICF International. The survey was implemented by New ERA, a local research firm with extensive experience in conducting such surveys in the past.

We express our deep sense of appreciation to the technical experts in the different fields of population and health for their valuable input in the various phases of the survey including the finalization of the questionnaires, training of field staff, monitoring the data collection, reviewing the draft tables and providing valuable inputs towards finalizing the report. Our sincere gratitude goes to all the members of Technical Advisory Committee for their time, support and valuable input. We would like to extend or sincere gratitude to Dr. Sudha Sharma, Ex-secretary, Ministry of Health and Population for her guidance and valuable input. Our sincere thanks go to Mr. Surya Prasad Acharya and Mr. Krishna Prasad Lamsal for their support during the different phases of the survey as chiefs of the Population Division, Ministry of Health and Population.

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We greatly acknowledge the support we received from various institutions in implementing the survey. We would especially like to thank the local level agencies including the District Health Offices, Health-Posts, Sub-health Posts, District Development Committees and the Village Development Committees for their support throughout the survey period. The FCHVs require special mention here, whose support has been highly appreciated. We extend our deepest gratitude to all the respondents for their time in responding to the survey.

Sidhartha Man Tuladhar Executive Director New ERA Padam Raj Bhatta Chief, Population Division Ministry of Health and Population

#### 2011 NEPAL DHS TECHNICAL ADVISORY COMMITTEE

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Secretary, Ministry of Health and Population	Member
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Dr. Prabha K Hamal, Member, National Population Committee	Member
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Chief, PHA, Monitoring and Evaluation Division, Ministry of Health and Population	Member
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Director, Child Health Division, Department of Health Services	Member
Director, NCASC, Ministry of Health and Population	Member
Director, NHIECC, Ministry of Health and Population	Member
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Representative, UNFPA	Member
Dr. Pav Govindasamy, ICF International	Member
Head of Department, Central Department of Population Studies	Member
Executive Director, New ERA	Member
Chief, Population Division, Ministry of Health and Population	Member-Secretary

### 2011 NEPAL DHS TECHNICAL WORKING COMMITTEE

Joint Secretary/Chief, Population Division, Ministry of Health and Population	Chairperson
Dr. Bal Krishna Suvedi, PPICD, Ministry of Health and Population	Member
Dr. Megha Raj Dhakal, Under Secretary, Population Study and Research Section, MOHP	Member
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Dr. Babu Ram Marasini, Public Health Administrator, Ministry of Health and Population	Member
Mr. Raj Kumar Pokharel, Public Health Administrator, CHD, Department of Health Services	Member
Mr. Naresh Khatiwada, Statistical Officer/Demographer, Ministry of Health and Population	Member
Mr. Anil Thapa, Demographer, Ministry of Health and Population	Member
Mr. Badri Bahadur Khadka, NHIECC	Member
Chief, Demographic Section, FHD, Department of Health Services	Member
Mr. Pawan Kumar Ghimire, Chief, HMIS, Department of Health Services	Member
Mr. Nebin Lal Shrestha, Director, Central Bureau of Statistics	Member
Mr. Jhabindra Prasad Pandey, Demographer. Family Health Division	Member
Dr. Laxmi Bilash Acharya, FHI	Member
Dr. Yagya Bahadur Karki, Demographer	Member
Dr. Prakash Dev Panta, Family Health International 360	Member
Dr. Pushpa Kamal Subedi, Assoc. Professor, Central Department of Population Studies, T.U.	Member
Mr. Ajit Singh Pradhan, Demographer, Nepal Health Sector Support Program	Member
Mr. Bharat Ban, Nepal Family Health Program	Member
Representative, National Center for AIDS and STD Control	Member
Representative, Nepal Health Research Council	Member
Representative, New ERA	Member
Chief, Population Study and Research Section, Population Division	Member-Secretary

# **CONTRIBUTORS TO THE REPORT**

#### **AUTHORS**

Mr. Padam Raj Bhatta, Population Division, Ministry of Health and Population Mr. Surya Prasad Acharya, Ministry of Health and Population Mr. Upendra Adhikari, Ministry of Women and Social Welfare Dr. Megha Raj Dhakal, Population Division, Ministry of Health and Population Mr. Naresh Khatiwada, Population Division, Ministry of Health and Population Mr. Anil Thapa, Population Division, Ministry of Health and Population Ms. Lila Kumari K.C., Population Division, Ministry of Health and Population Mr. Raj Kumar Pokhrel, Child Health Division, Department of Health Services Mr. Mukti Nath Khanal, Family Health Division, Department of Health Services Mr. Paban Ghimire, Management Division, Department of Health Services Mr. Ramesh Adhikari, District Health Office, Kaski Dr. Purusotam Raj Shedain, Child Health Division, Department of Health Services Mr. Parshu Ram Shrestha, Child Health Division, Department of Health Services Mr. Dilli Raman Adhikari, National Centre for AIDS and STD Control, Department of Health Services Mr. Jhabindra Prasad Pandey, Ministry of Health and Population Mr. Kshitiz Shrestha, New ERA Ms. Jyoti Manandhar, New ERA Dr. Pav Govindasamy, ICF International Ms. Anjushree Pradhan, ICF International

#### **RESOURCE PERSONS**

Mr. Gauri Pradhan, Member, National Human Rights Commission

Dr. Sudha Sharma, Ministry of Health and Population

Dr. Ram Hari Aryal, Secretary, Ministry of Science and Technology

Dr. Bal Krishna Suvedi, Ministry of Health and Population

Dr. Chandrakala Bhadra, Member, National Population Committee

Dr. Ram Sharan Pathak, Member, National Population Committee

Mr. Yogendra Bahadur Gurung, Member, National Population Committee

Dr. Y.V. Pradhan, Director General, Department of Health Services

Mr. Bed Prasad Bhattarai, Director, National Human Rights Commission

Dr. Naresh Pratap K.C., Department of Health Services, Ministry of Health and Population

Dr. Shyam Raj Uprety, Child Health Division, Department of Health Services

Dr. Ramesh Kharel, National Center for AIDS and STD Control

Dr. B.R. Marasini, Ministry of Health and Population

Dr. Kedar Baral (PAHS)

Dr. R.K. Adhikari, KIST Medical College

Dr. Prakash Dev Pant, Family Health International 360

Dr. Suresh Tiwari, Nepal Health Sector Support Program

Mr. Ajit Singh Pradhan, Nepal Health Sector Support Program

Mr. Ashoke Shrestha, Nepal Family Health Program

Dr. Rajendra Bhadra, Nepal Family Health Program

Mr. Bharat Ban, Nepal Family Health Program

Mr. Dirgha Raj Shrestha, Nepal Family Health Program

Mr. Deepak Paudel (USAID)

Dr. Amit Bhandari, DFID

Ms. Iva Schildbach (GIZ)

Mr. Manav Bhattarai, World Bank

Mr. Satish Raj Pandey, Family Health International 360

Mr. Shailesh Neupane, Valley Research Group

Mr. Shital Bhandari (PAHS)

Dr. Sudhir Khanal, UNICEF

Mr. Sunil Acharya, Central Department of Population Studies, Tribhuvan University

Ms. Pooja Pandey, Helen Keller International

Mr. Yogendra Prasai, New ERA

## MILLENNIUM DEVELOPMENT GOAL INDICATORS

#### Millennium Development Goal Indicators

Nepal, 2011

		Sex		
Indicator		Male Female		Total
1. Eradicate	extreme poverty and hunger			
1.8 Prev	alence of underweight children under five years of age <sup>1</sup>	29.6	28.0	28.8
2. Achieve ur	niversal primary education			
	enrollment ratio in primary education <sup>2</sup>	94.6	89.0	91.9
2.3 Liter	acy rate of 15-24 year olds <sup>3</sup>	94.6 <sup>a</sup>	82.7	88.6 <sup>b</sup>
3. Promote a	ender equality and empower women			
	o of girls to boys in primary education <sup>4</sup>	na	na	0.9
3.1b Ratio	o of girls to boys in secondary education <sup>4</sup>	na	na	1.0
3.1c Ratio	o of girls to boys in tertiary education <sup>4</sup>	na	na	0.8
4. Reduce ch	ild mortality			
4.1 Und	er-five mortality rate (per 1,000 live births) <sup>5</sup>	63	62	54
4.2 Infar	nt mortality rate (per 1,000 live births) <sup>5</sup>	54	52	46
4.3 Prop	ortion of 1 year-old children immunized against measles <sup>6</sup>	89.7	86.3	88.0
	aternal health			
5.2 Prop	ortion of births attended by skilled health personnel <sup>7</sup>	na	na	36.0
	traceptive prevalence rate <sup>8</sup>	na	49.7	na
	escent birth rate <sup>9</sup>	na	81.0	na
	natal care coverage: at least 1 visit by skilled health			
	essional	na	58.3	na
	natal care coverage: at least 4 visits by any provider	na	50.1	na
5.6 Unm	et need for family planning	na	27.0	na
	V/AIDS, malaria and other diseases			
	dom use at last high-risk sex: youth 15-24 years <sup>10</sup>	65.8 <sup>a</sup>	na	na
	entage of population 15-24 years with comprehensive			L
knov	vledge of AIDS <sup>11</sup>	33.9 <sup>a</sup>	25.8	29.8 <sup>b</sup>
		Urban	Rural	Total
7. Ensure en	vironmental sustainability			
7.8 Perc	entage of population using an improved drinking water			
sour	ce <sup>12</sup>	93.5	87.8	88.6
7.9 Perc	entage of population with access to improved sanitation <sup>13</sup>	58.1	36.7	39.5

na = Not applicable.

Proportion of children age 0-59 months who are below -2 standard deviations from the median of the WHO Child Growth

Standards in weight-for-age. <sup>2</sup> The rate is based on reported attendance, not enrollment, in primary education among primary school age children (6-10 yearolds). The rate also includes children of primary school age attended in secondary education. This is proxy for MDG indicator 2.1, net enrollment ratio.

 <sup>3</sup> Refers to respondents who attended secondary school or higher or who could read a whole sentence or part of a sentence.
 <sup>4</sup> Based on reported net attendance, not gross enrollment, among 6-10 year-olds for primary, 11-15 year-olds for secondary and <sup>5</sup> Expressed in terms of deaths per 1,000 live births. Mortality by sex refers to a 10-year reference period preceding the survey.

Mortality rates for males and females combined refer to the 5-year period preceding the survey.

Among children age 12-23 months vaccinated at any time before the survey.

<sup>7</sup> Among births in the 5-year period preceding the survey. <sup>8</sup> Percentage of currently married women age 15-49, using any method of contraception.

<sup>9</sup> Equivalent to the age-specific fertility rate for women age 15-19 for the 3-year period preceding the survey, expressed in terms <sup>10</sup> High-risk sex refers to sexual intercourse with a non-marital, non-cohabiting partner. Expressed as a percentage of men and

women age 15-24 who had high-risk sex in the past 12 months. Information for female suppressed as only few women had high-risk sex.

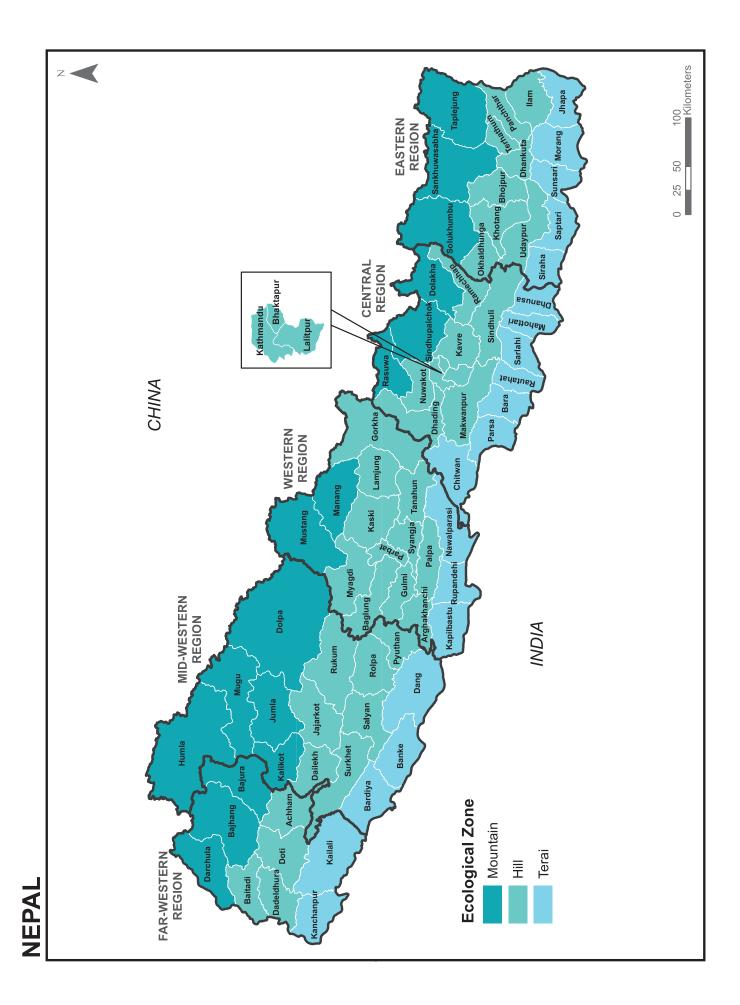
Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus: AIDS can be transmitted by mosquito bites; a person can become infected by sharing food with someone who has AIDS. <sup>12</sup> Percentage of de-jure population whose main source of drinking water are: a household connection (piped), public standpipe,

<sup>13</sup> Percentage of delive population mices man control of dimining which all a not <sup>13</sup> Percentage of delive population with population to fluck traited income

Percentage of de-jure population with access to flush toilet, ventilated improved pit latrine, pit latrine with a slab, or composting toilet and does not share this facility with other households.

Restricted to men in sub-sample of households selected for the male interview

<sup>b</sup> The total is calculated as the simple arithmetic mean of the percentages in the columns for males and females



#### 1.1 HISTORY, GEOGRAPHY, AND ECONOMY

#### 1.1.1 History

The history of Nepal goes back thousands of years, with early dynasties of Ahirs and Gopalas and Kirant kings ruling the country. It appears that the Kirant people were one of the first to settle in Nepal; they are said to have ruled the country for about 2,500 years. Subsequent dynasties of Licchavi and Thakuri kings ruled the country before the Malla period began in the 12th century. The Malla era is considered to be the golden age of Nepal, and Malla kings were famous for their contribution to art and culture. In 1765 A.D., King Prithvi Narayan Shah—the first Shah king of Nepal—embarked on his mission to unify the country, which had previously been divided into small independent kingdoms. After several battles and sieges, he managed to unify the Kathmandu Valley and surrounding territories three years later in 1768. However, factionalism inside the royal family led to the emergence of the Rana lineage, founded by military leader Jung Bahadur Rana, who assumed power by killing hundreds of military personnel and administrators loyal to Shah rulers in 1846 (Thingo and von der Heide, 1997).

Backed by newly emerging pro-democracy movements and political parties, King Tribhuwan Shah ended the century-old system of rule by hereditary Rana premiers and instituted a cabinet system of government in 1951. Reforms in 1990 established a multiparty democracy within the framework of a constitutional monarchy. In early 1996, the Nepal Communist Party (Maoist) launched a movement that capitalized on the growing dissatisfaction among the general population with the lack of reforms expected from a democratically elected government. The constant conflict between the Maoists and the elected government resulted in the displacement of the population. Growing numbers of people began migrating out of their usual places of residence to urban centers and neighboring countries to escape the conflict and to search for employment.

Citing dissatisfaction with the government's lack of progress in addressing the Maoist insurgency, King Gyanendra Bir Bikram Shah dissolved the government, declared a state of emergency, imprisoned party leaders, and assumed power in February 2005. The mass movement of April 2006 in Nepal restored parliament and the democratic process and initiated a peace movement that called for an end to the 10-year-long armed conflict. After nearly three weeks of mass protests organized by the seven-party opposition and the Maoists, the king allowed parliament to reconvene on 8 April 2006. A comprehensive peace agreement was signed between an alliance of the seven major political parties and the Nepal Communist Party (Maoist) on 21 November 2006. An interim constitution was drafted, and the restored parliament dissolved to pave the way for an interim legislature and interim government. The Nepal Communist Party (Maoist) joined the democratic competition, and constituent assembly elections were held in April 2008 to devise a constitution to manage the root causes of the conflicts afflicting the nation.

After the dethroning of King Gyanendra Bir Bikram Shah and the obliteration of the monarchy in Nepal, the ruling seven-party alliance announced substantive structural reforms such as the declaration of the country as secular and federal, civilian control of the Nepal Army, nationalization of royal property, and empowerment of the prime minister as head of state (Dahal, 2008).

#### 1.1.2 Geography

The total land area of Nepal is 147,181 square kilometers, with India to the east, south, and west and China to the north. It is a land-locked country occupying an area from 26° 22' to 30° 27' north latitude and 80° 4' to 88° 12' east longitude; elevations range from 90 meters to 8,848 meters. Nepal is rectangular in shape and stretches 885 kilometers in length (east to west) and 193 kilometers in width (north to south). According to the

preliminary results of the 2011 Population Census, the population of Nepal stands at 26.6 million (Central Bureau of Statistics, 2011a).

Topographically, Nepal is divided into three distinct ecological zones: mountain, hill, and *terai* (or plains). The mountain zone, which accounts for 35 percent of the total land area, ranges in altitude from 4,877 meters to 8,848 meters above sea level and covers a land area of 51,817 square kilometers. Because of the harsh terrain, transportation and communication facilities in this zone are very limited, and only about 7 percent of the total population lives here.

In contrast, the hill ecological zone, which ranges in altitude from 610 meters to 4,876 meters above sea level, is densely populated. About 43 percent of the total population lives in the hill zone, which covers an area of 61,345 square kilometers and occupies 42 percent of the total land area. The population distribution in the hills varies, with a fairly dense population in the valleys but notably lower population numbers above 2,000 meters (6,562 feet) and very low numbers above 2,500 meters (8,202 feet), where snow occasionally falls in the winter. This zone includes the Kathmandu Valley, the country's most fertile and urbanized area. Although the terrain is also rugged in this zone, because of the higher concentration of people, transportation and communication facilities are much more developed here than in the mountains.

The terai zone in the southern part of the country can be regarded as an extension of the relatively flat Gangetic plains of alluvial soil. This region has a subtropical to tropical climate. The outermost range of foothills, the Siwalik or Churia range, crests at 700 to 1,000 meters (2,297 to 3,281 feet) and marks the limit of the Gangetic plains; broad, low valleys called the inner terai lie north of these foothills. The terai consists of dense forest areas, national parks, wildlife reserves, and conservation areas. This area, which covers 34,019 square kilometers, is the most fertile part of the country. While it constitutes only 23 percent of the total land area in Nepal, 50 percent of the population lives here (Central Bureau of Statistics, 2011a). Because of its relatively flat terrain, transportation and communication facilities are more developed in this zone than in the other two zones of the country, and this has attracted newly emerging industries.

The climatic conditions vary substantially by altitude. There are five climatic zones, broadly corresponding to altitude. The tropical and subtropical zones lie below 1,200 meters, the temperate zone 1,200 to 2,400 meters, the cold zone 2,400 to 3,600 meters, the subarctic zone 3,600 to 4,400 meters, and the arctic zone above 4,400 meters. In the terai, temperatures can go up to 44° Celsius in the summer and fall to 1° Celsius in the winter. The corresponding temperatures for the hill and mountain areas are 43° Celsius and 29° Celsius, respectively, in the summer and -1° Celsius and far below 0° Celsius, respectively, in the winter. The annual mean rainfall in the country is around 1,500 millimeters (Central Bureau of Statistics, 2006a).

For administrative purposes, Nepal is divided into five development regions: Eastern, Central, Western, Mid-western, and Far-western. Similarly, the country is divided into 14 zones and 75 administrative districts. Districts are further divided into smaller units, called village development committees (VDCs) and municipalities. The VDCs are rural areas, whereas municipalities are urban. Currently, there are 3,915 VDCs and 58 municipalities. Each VDC is composed of 9 wards, and the number of wards in each municipality ranges from 9 to 35. Kathmandu is the capital city as well as the principal urban center of Nepal (Central Bureau of Statistics, 2006b).

The 2001 census listed 103 diverse ethnic/caste groups, each with its own distinct language and culture (Central Bureau of Statistics, 2003). The major groups are as follows: Chhetri, Brahmins, Magar, Tharu, Tamang, and Newar.

The 2001 census also identified about 92 mother tongues. Most of these languages originated from two major groups: the Indo-Europeans, who constitute about 79 percent of the population, and the Sino-Tibetans, who constitute about 18 percent of the population. Nepali is the official language of the country and is the mother tongue of about half of the population. However, it is used and understood by most people in the country. The other two major languages are Maithili and Bhojpuri, spoken by about 12 percent and 8 percent of

the population, respectively. According to the 2001 census, the majority of Nepalese are Hindus; there are also substantial numbers of Buddhists, Muslims, and Kirants (Central Bureau of Statistics, 2003).

#### 1.1.3 Economy

Nepal has considerable scope for exploiting its resources in areas such as hydropower and tourism, but a lack of political will, weak implementation of state policies, and the government's failure to maintain law and order have substantially curbed the growth of the economic sector. Although the country has attracted the interest of foreign investors in recent years, lack of security and unnecessary interference by workers and trade unions are continuously diminishing any such prospects. Similarly, the country's small economy and its technological backwardness, remoteness, and susceptibility to natural disasters also restrict the prospects of foreign trade.

The preliminary estimate of per capita gross domestic product (GDP) at current prices stands at Nepalese Rupees 41,851 for 2009-2010. As measured by GDP, the economic growth of the country was 3.4 percent in 2009-2010 against the target of 4.5 percent, due to the slow growth in the nonagricultural sector. Nearly one-fourth of the population lives below the poverty line according to the 2010-2011 Nepal Living Standard Survey (Central Bureau of Statistics, 2011b). According to the Nepal Living Standard Survey 2010-2011, only 2 percent of the population in Nepal is unemployed. Agriculture is the major occupation, with 76 percent of households involved in agricultural activities. Remittances have become one of the foremost sources of income in Nepal, with nearly 56 percent of households receiving some sort of remittance (Central Bureau of Statistics, 2011c).

#### 1.2 POPULATION

Population censuses have been carried out in Nepal since 1911 at decennial intervals. However, detailed information about the size and structure of the population has been available only since the 1952/1954 census. Table 1.1 provides a summary of the basic demographic indicators for Nepal from the census data for 1971, 1981, 1991, and 2001 and the recent preliminary findings from the 2011 census. According to the preliminary 2011 census findings, the population of the country stands at 26.6 million, with an increase of 3.5 million in the last 10 years. The population has more than doubled in the last 40 years. The population grew at a rapid rate between 1971 and 1981 from 2.1 percent to 2.6 percent but has since slowed to just over 2 percent in 1991 and 1.4 percent in 2011. The population density of Nepal is estimated to be 181 per square kilometer.

Table 1.1 Basic demogra	phic indicators	<u>5</u>			
Selected demographic ind	icators for Ne	pal, 1971-201	1		
Indicator	1971 census	1981 census	1991 census	2001 census	2011 census (preliminary)
Population (millions) Intercensal growth rate	11.6	15.0	18.5	23.2	26.6
(percentage)	2.1	2.6	2.1	2.2	1.4
Density (pop./km <sup>2</sup> )	79	102	126	157	181
Percent urban	4.0	6.4	9.2	13.9	17.0
Life expectancy (years)					
Male	42.0	50.9	55.0	60.1	u
Female	40.0	48.1	53.5	60.7	u

Source: Central Bureau of Statistics, 2003:3, 383; Ministry of Population and Environment and Central Bureau of Statistics, 2003:8; Central Bureau of Statistics, 2011a u = No information

The Kathmandu district has the highest population density (4,408) and Manang (3) the lowest. The decennial population growth has been highest in Kathmandu (61 percent) and lowest in Manang (-31 percent) (the overall level in Nepal is 15 percent). Currently, 4.5 million people (17 percent) reside in urban areas. The largest percentage of the population is in the Central development region (36 percent) and the smallest in the Far-western region (10 percent). The sex ratio (number of males per 100 females) is estimated at 94.4 in the current census, as compared to 99.8 in the previous census in 2001. The average household size has decreased from 5.4 in 2001 to 4.7 in 2011 (Central Bureau of Statistics, 2011a).

#### 1.3 POPULATION AND HEALTH POLICIES AND PROGRAMS

In the Third Development Plan (1965-1970), family planning was a major component of planned development activities, and the Nepal Family Planning and Maternal and Child Health (FP/MCH) Project was subsequently launched under the Ministry of Health (National Planning Council, 1965). Before that, family planning activities were undertaken by the Family Planning Association of Nepal (FPAN), a nongovernmental organization established in 1959 to create awareness about the need for and importance of family planning.

While the Fourth Development Plan (1970-1975) targeted the provision of family planning services to 15 percent of married couples by the end of the plan period (National Planning Commission, 1970), the Fifth Development Plan (1975-1980) initiated the expansion of family planning services through outreach workers, and serious attempts were made to reduce the birth rate by direct and indirect means. A population policy coordinating board was established in 1975 under the National Planning Commission (NPC) to coordinate the government's multisectorial activities in population and reproductive health. The board was upgraded in 1978 to become the National Commission on Population (National Planning Commission, 1975).

From the Fifth Development Plan (1975-1980) until the end of the Seventh Development Plan (1985-1990), population issues were addressed from both policy and programmatic points of view. This included launching population-related programs in reproductive health, agriculture, forestry, urbanization, manpower and employment, education, and women's development, as well as community development programs (National Planning Commission, 1985). In 1990, the National Commission on Population was dissolved, and its role was given to the Population Division of the NPC. The Eighth Development Plan (1992-1997) continued with the integrated development approach taken in earlier plans (National Planning Commission, 1992).

The Ninth Development Plan (1997-2002) aimed to reduce population growth through social awareness and expansion of education and family planning programs. The long-term objective of the plan was to lower fertility to replacement level in the subsequent 20 years (National Planning Commission, 1997). The primary objectives of population management in the Tenth Development Plan (2002-2007) were to encourage a small family norm, promote the development of an educated and healthy population, and discourage the out-migration of skilled labor (National Planning Commission, 2002). Similarly, the Second Long Term Health Plan (1997-2017) was formulated to improve the health status of the population; particularly vulnerable groups whose health needs often are not met, including women and children, the poor, and underprivileged and marginalized groups. The plan would address disparities in health status, assuring equitable access to quality health care services with full community participation and gender sensitivity.

In 2001, the Nepal Family Health Program (NFHP), funded by the United States Agency for International Development (USAID), was implemented in partnership with the government of Nepal under the leadership of the Ministry of Health and Population (MOHP). The program ran from 2001 to 2006 and focused on reducing fertility and protecting family health through increased use of quality family planning services and selected maternal and child health services. NFHP emphasized household- and community-level services by strengthening health service delivery systems. To maximize the long-term impact, technical assistance and activities were planned and implemented in close collaboration with the MOHP. Similarly, NFHP II (2007-2012) aims to increase access to health services for all Nepalese, particularly the rural poor, by improving public sector services, community-based family planning services, and maternal, newborn, and child health services in a manner that builds local capacity and engages stakeholders (Johns Hopkins University Center for Communication Programs, 2011; USAID/Nepal, 2010).

The Nepal Health Sector Program Implementation Plan (NHSP-IP 2004-2009) was launched by the Ministry of Health and Population to improve the health status of the Nepalese population through increased utilization of essential health services; another goal was to increase the coverage and raise the quality of essential health care services, with a special emphasis on improved access for poor and vulnerable groups through an efficient sector-wide health management system developed with the provision of adequate financial resources (Ministry of Health and Population, 2011a). A further major aim was to achieve the health sector Millennium Development Goals (MDGs) in Nepal through improved health outcomes for the poor and those

living in remote areas and a consequent reduction in poverty. The program included a number of new actions as part of the Agenda for Reform of the Health Sector.

Similarly, NHSP-IP II (2010-2015) represents a continuation and further refinement of earlier policies and plans that were based on the implementation of cost-effective, evidence-based health interventions. A major goal is to sustain and build on a program delivering excellent results. NHSP-IP I did not have a strong focus on gender and social exclusion issues in the initial design. These issues came into greater prominence during the implementation of NHSP-IP II, particularly with the extension of free services. NHSP-IP II is designed to focus from the start on improving the health of poor and marginalized groups. NHSP-IP II also aims to reconsider how best to achieve improved efficiency and accountability in order to sustain government and external development partner (EDP) support and make the best use of limited resources. Furthermore, the plan has set out to meet specific targets with respect to improving key maternal and child health indicators such as maternal mortality ratio (MMR); total fertility rate (TFR); neonatal, infant, and under-five mortality rates; contraceptive prevalence rate; and percentage of underweight children (Ministry of Health and Population, 2010a).

The three-year interim development plan (2007/2008-2010/2011), drafted after the historic people's movement in 2006, accepted the global principle of health as a fundamental right. Among others, the plan set out to meet specific objectives such as increasing the percentage of family planning users, increasing the percentage of women receiving maternity services from health workers, and reducing the TFR, MMR, and infant and child mortality rates. The subsequent three-year interim development plan (2010/2011-2012/2013) has aimed to evaluate achievements against the set targets and continue with the specific objectives set in the earlier plan.

Recently, the Population Perspective Plan (PPP) 2010-2031 was formulated based on a multidisciplinary approach in order to integrate population aspects with relevant economic and social sectors. It also provides a thematic focus on three aspects: poverty reduction, gender mainstreaming, and social inclusion. Among other objectives, the plan aims to help prioritize specific sectoral program areas related to population that bear on poverty alleviation and sustainable development. The plan also attempts to address commitments that Nepal had made in endorsing plans of action related to population issues in various international forums, particularly the 1994 International Conference on Population Development and the 2000-2015 MDGs (Ministry of Health and Population, 2010b).

Furthermore, the PPP aims to provide guidance in the formulation of population policies that can be implemented with consideration of population as a crucial development variable. The plan also provides a basis for effective institutional arrangements for the coordination, implementation, and monitoring of population programs.

#### 1.4 OBJECTIVES OF THE SURVEY

The principal objective of the 2011 Nepal Demographic and Health Survey (NDHS) is to provide current and reliable data on fertility and family planning, child mortality, children's nutritional status, utilization of maternal and child health services, domestic violence, and knowledge of HIV/AIDS. The 2011 NDHS also provides population-based information on the prevalence of anemia among women age 15-49 and children age 6-59 months. The specific objectives of the survey are to:

- collect data at the national level that will allow the calculation of key demographic rates
- analyze the direct and indirect factors that determine fertility levels and trends of fertility
- measure the level of contraceptive knowledge among women and men by method and use of contraception among women by urban-rural residence and region

- collect high-quality data on family health, including immunization coverage among children, prevalence and treatment of diarrhea and other diseases among children under five, and maternity care indicators such as antenatal visits, assistance at delivery, and postnatal care
- collect data on infant and child mortality
- collect data on child feeding practices, including breastfeeding, and anthropometric measurements to use in assessing the nutritional status of women and children
- collect data on knowledge and attitudes of women and men about sexually transmitted infections and HIV/AIDS and evaluate patterns of recent behavior regarding condom use
- conduct hemoglobin testing of women age 15-49 and children age 6-59 months in the households selected for the survey to provide information on the prevalence of anemia among women of reproductive age and young children
- collect information to assess the situation of domestic violence against women

Data from the 2011 NDHS survey allow for comparison of information gathered over a period of time and add to the vast and growing international database on demographic and health-related variables. Information from the survey is essential for informed policy decisions and for planning, monitoring, and evaluation of health programs in general, and reproductive health programs in particular, at both the national and district levels. A long-term objective of the survey is to strengthen the technical capacity of local organizations to plan, conduct, process, and analyze data from complex national population and health surveys.

Moreover, the 2011 NDHS is comparable to similar surveys conducted in other developing countries and therefore affords national and international comparisons. The first Demographic and Health Survey (DHS) in Nepal was the 1996 Nepal Family Health Survey (NFHS), conducted as part of the worldwide DHS program; subsequently, surveys have been conducted every five years, in 2001, 2006, and now in 2011. Wherever possible, the 2011 NDHS data are compared with data from the earlier DHS surveys in Nepal, which also sampled women age 15-49. Men age 15-49 were also interviewed in the 2011 NDHS to provide comparable data for male respondents over the last 10 years.

#### 1.5 ORGANIZATION OF THE SURVEY

The 2011 NDHS is the fourth nationally representative comprehensive survey conducted as part of the worldwide DHS project in the country. It was carried out under the aegis of the Ministry of Health and Population. The survey was implemented by New ERA, a private research firm in Nepal that also conducted the 1996 NFHS and the 2001 and 2006 NDHS. ICF International provided technical assistance through its MEASURE DHS project. The survey was funded by the United States Agency for International Development through its mission in Nepal.

A technical advisory committee was formed under the Secretary of the Ministry of Health and Population to be responsible for coordination, oversight, advice, and decision-making on all major aspects of the survey. A technical working committee was also formed under the chairmanship of the chief of the MOHP, Population Division. Both committees included key members from different divisions of the ministry, the National Population Committee, external development partners, and other concerned stakeholders. The committee members provided their technical input throughout the various stages of drafting and finalizing the questionnaires, participated in training and field supervision, and provided feedback in finalizing the report.

#### 1.6 SAMPLE DESIGN

The primary focus of the 2011 NDHS was to provide estimates of key population and health indicators, including fertility and mortality rates, for the country as a whole and for urban and rural areas separately. In

addition, the sample was designed to provide estimates of most key variables for the 13 eco-development regions.

#### 1.6.1 Sampling Frame

Nepal is divided into 75 districts, which are further divided into smaller VDCs and municipalities. The VDCs and municipalities, in turn, are further divided into wards. The larger wards in the urban areas are divided into subwards. An enumeration area (EA) is defined as a ward in rural areas and a subward in urban areas. Each EA is classified as urban or rural. As the upcoming population census was scheduled for June 2011, the 2011 NDHS used the list of EAs with population and household information developed by the Central Bureau of Statistics for the 2001 Population Census. The long gap between the 2001 census and the fielding of the 2011 NDHS necessitated an updating of the 2001 sampling frame to take into account not only population growth but also mass internal and external migration due to the 10-year political conflict in the country. To obtain an updated list, a partial updating of the 2001 census frame was carried out by conducting a quick count of dwelling units in EAs five times more than the sample required for each of the 13 domains. The results of the quick count survey served as the actual frame for the 2011 NDHS sample design.

#### 1.6.2 Domains

The country is broadly divided into three horizontal ecological zones, namely mountain, hill, and terai. Vertically, the country is divided into five development regions. The cross section of these zones and regions results in 15 eco-development regions, which are referred to in the 2011 NDHS as subregions or domains. Due to the small population size in the mountain regions, the Western, Mid-western, and Far-western mountain regions are combined into one domain, yielding a total of 13 domains. In order to provide an adequate sample to calculate most of the key indicators at an acceptable level of precision, each domain had a minimum of about 600 households.

Stratification was achieved by separating each of the 13 domains into urban and rural areas. The 2011 NDHS used the same urban-rural stratification as in the 2001 census frame. In total, 25 sampling strata were created. There are no urban areas in the Western, Mid-western, and Far-western mountain regions.

The numbers of wards and subwards in each of the 13 domains are not allocated proportional to their population due to the need to provide estimates with acceptable levels of statistical precision for each domain and for urban and rural domains of the country as a whole. The vast majority of the population in Nepal resides in the rural areas. In order to provide national urban estimates, urban areas of the country were oversampled.

#### 1.6.3 Sample Selection

Samples were selected independently in each stratum through a two-stage selection process. In the first stage, EAs were selected using a probability-proportional-to-size strategy. In order to achieve the target sample size in each domain, the ratio of urban EAs to rural EAs in each domain was roughly 1 to 2, resulting in 95 urban and 194 rural EAs (a total of 289 EAs).

Complete household listing and mapping was carried out in all selected EAs (clusters). In the second stage, 35 households in each urban EA and 40 households in each rural EA were randomly selected. Due to the nonproportional allocation of the sample to the different domains and to oversampling of urban areas in each domain, sampling weights are required for any analysis using the 2011 NDHS data to ensure the actual representativeness of the sample at the national level as well as at the domain levels. Since the 2011 NDHS sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage, taking into account nonproportionality in the allocation process for domains and urban-rural strata.

#### 1.7 QUESTIONNAIRES

Three questionnaires were administered in the 2011 NDHS: the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire (Appendix E). These questionnaires were adapted from the standard DHS6 core questionnaires to reflect the population and health issues relevant to Nepal at a series of meetings with various stakeholders from government ministries and agencies, nongovernmental organizations, EDPs, and international donors. The final draft of each questionnaire was discussed at a questionnaire design workshop organized by the MOHP, Population Division on 22 April 2010 in Kathmandu. These questionnaires were then translated from English into the three main local languages—Nepali, Maithali, and Bhojpuri—and back translated into English. Questionnaires were finalized after the pretest, which was held from 30 September to 4 November 2010, with a one-week break in October for the Dasain holiday.

The Household Questionnaire was used to list all of the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. For children under age 18, the survival status of the parents was determined. The Household Questionnaire was used to identify women and men who were eligible for the individual interview and women who were eligible for the interview focusing on domestic violence. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, ownership of mosquito nets, and household food security. The results of salt testing for iodine content, height and weight measurements, and anemia testing were also recorded in the Household Questionnaire.

The Woman's Questionnaire was used to collect information from women age 15-49. Women were asked questions on the following topics:

- background characteristics (education, residential history, media exposure, etc.)
- pregnancy history and childhood mortality
- knowledge and use of family planning methods
- fertility preferences
- antenatal, delivery, and postnatal care
- breastfeeding and infant feeding practices
- vaccinations and childhood illnesses
- marriage and sexual activity
- work characteristics and husband's background characteristics
- awareness and behavior regarding AIDS and other sexually transmitted infections
- domestic violence

The Man's Questionnaire was administered to all men age 15-49 living in every second household in the 2011 NDHS. The Man's Questionnaire collected much of the same information as the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health, nutrition, or domestic violence.

#### **1.8 HEMOGLOBIN TESTING**

In the 2011 NDHS, anemia testing was conducted in every second household (i.e., in households where male interviews were conducted). In such households, all women age 15-49 and children age 6-59 months were tested for anemia. The protocol for hemoglobin testing was approved by the Nepal Health Research Council and the ICF Macro Institutional Review Board in Calverton, Maryland, USA.

Selected interviewers were trained to conduct this procedure. Respondents (and their parent or guardian in the case of unmarried minors) were asked for their consent to participate in the anemia testing. The interviewers explained the purpose of the test, informed prospective subjects and/or their caretakers that the results would be made available as soon as the test was completed, and requested permission for the test to be

carried out. Levels of anemia were classified as severe, moderate, or mild according to criteria developed by the World Health Organization (DeMaeyer et al., 1989).

To measure the level of hemoglobin, capillary blood was taken in the field from a finger using sterile, one-time-use lancets that allowed for a relatively painless puncture. The concentration of hemoglobin in the blood was measured using the HemoCue system. Before the blood was taken, the finger was wiped with an alcohol prep swab and allowed to air-dry. Then the palm side of the end of the finger was punctured with a sterile, non-reusable, self-retractable lancet. A drop of blood was collected with a HemoCue microcuvette and placed in a HemoCue photometer, where the results were displayed. For children age 6 to 11 months who were particularly undernourished and bony, a heel puncture was made to draw a drop of blood. The results were recorded in the Household Questionnaire, as well as on a brochure given to each woman, parent, or responsible adult explaining what the results meant. Women or children whose results indicated severe anemia were provided with a card referring them to the nearest health facility.

#### 1.9 LISTING, PRETEST, TRAINING, AND FIELDWORK

#### 1.9.1 Listing

From the sampling frame, a total of 289 clusters were selected throughout the 13 subregions. A listing operation was conducted from 27 September to 14 December 2010 by 26 teams of two members each, with one member working as a lister and the other as a mapper. Altogether, 52 listers and mappers were recruited from all regions to do the listing of the households. Training was provided using standard DHS manuals and guidelines modified for Nepal that described the listing procedures in detail. Training included classroom demonstrations and field practice, and instructions were given on the use of Global Positioning System (GPS) units to obtain location coordinates for selected clusters.

#### 1.9.2 Pretest

Prior to the start of the fieldwork, the questionnaires were pretested in Nepali, Bhojpuri, and Maithali to make sure that the questions were clear and could be understood by the respondents. One of the important components of the pretest was to test the entry program on tablet personal computers (PCs), as 2011 marked the first time the NDHS used tablet PCs to collect data from the field. The data file transfer process using the Internet File Streaming System (IFSS), through which data from the field could be transferred to the main office via the Internet, was also tested.

In order to conduct the pretest, 12 interviewers were recruited to interview in the three local languages. Training for the pretest was held at the New ERA office. The pilot survey was conducted (as mentioned) from 30 September to 4 November 2010 in three selected sites. The areas selected for the pretest were Kathmandu (for the Nepali language), the Parsa district (for the Bhojpuri language), and the Dhanusha district (for the Maithili language). Both rural and urban households were selected for the pretest in all three districts.

Based on the findings of the pretest, the Household Questionnaire, Woman's Questionnaire, and Man's Questionnaire were further refined in all three languages. Similarly, necessary revisions in the computer program files were made based on the suggestions and feedback obtained in the pretest.

#### 1.9.3 Training of Field Staff

A stringent recruitment process was carried out in which candidates had to complete a written examination, a computer aptitude test, and an oral interview to qualify for training. A total of 96 persons were trained to serve as fieldwork supervisors, interviewers, quality control staff, and reserves. The main training took place in Kathmandu from 15 December 2010 to 16 January 2011.

Training consisted of two components: training on paper questionnaires and training on the use of tablet PCs. The New ERA research team led the three-week training on paper-based questionnaires and biomarkers, while MEASURE DHS staff led the two-week training on tablet PC use.

The training included theoretical and practical sessions and presentations, practical demonstrations, practice interviewing in small groups, and several days of field practice. The participants were also trained in measuring women and children's height and weight and in conducting anemia testing. Special classes on several topics were organized during the training sessions, including Nepal's health delivery system, family planning, maternal health, abortion, child health, nutrition, women's empowerment, and domestic violence. These classes were led by experts from the different divisions of the Ministry of Health and Population. During the training sessions, several rounds of mock interviews were also conducted so that the interviewers had ample opportunities to understand the questionnaire and become accustomed with the new technology of conducting interviews with tablet PCs before they started the real fieldwork.

#### 1.9.4 Fieldwork

Data collection was carried out by 16 field teams, each consisting of three female interviewers, one male interviewer, and a male supervisor. Teams were initially deployed around Kathmandu on 23 January 2011 to enable intense supervision and technical backstopping. Each team completed one cluster and electronically sent the data to the central office via the Internet. A review session was organized to share the experiences of the teams. The core team provided necessary feedback to the field teams.

Field teams traveled to their respective designated clusters on 2 February 2011, and the fieldwork was completed on 14 June 2011. Fieldwork supervision was done by six quality control teams, each consisting of one male and one female member. Additionally, two field coordinators monitored overall data quality. Close contact between the New ERA central office and the teams was maintained through field visits by New ERA senior staff, members of the technical advisory and working committees, staff of the Ministry of Health and Population, and staff of USAID/Nepal. Regular communication was maintained through cell phones.

Two review sessions were held to share field issues and refill supplies. The first was held after one month of fieldwork, on 3-5 March 2011, and the second was held on 21 April 2011. These sessions were helpful in updating progress, providing feedback to the teams based on field check tables and field observations, and discussing data inconsistencies and problems faced by the teams.

#### 1.10 DATA PROCESSING

The 2011 NDHS used ASUS Eee T101MT tablet PCs with data entry programs developed in CSPro. Code division multiple access (CDMA) wireless technology via Internet File Streaming System (IFSS) was used to transfer data from the field to the central office in Kathmandu. The IFSS package was developed by MEASURE DHS and tested for the first time in Nepal.

The data were sent to the central office at New ERA by the teams once they had checked and closed each EA file. This was mostly done before the team left the EA. In the central office, the data were edited by a senior data supervisor who had been specially trained for this task. The concurrent processing of the data was an advantage because field check tables to monitor various data quality parameters could be generated almost instantly and sent to the teams through the field coordinators, the quality control teams, and the core study team members. This allowed the field teams to receive immediate feedback and improve their performance. The data entry and editing phase of the survey was complete by the end of June 2011.

#### 1.11 RESPONSE RATES

Table 1.2 shows household and individual response rates for the 2011 NDHS. A total of 11,353 households were selected, out of which 10,888 were found to be occupied during data collection. Interviews were completed for 10,826 of these existing households, yielding a response rate of 99 percent.

In the selected households, 12,918 women were identified as eligible for the individual interview. Interviews were completed for 12,674 women, resulting in a response rate of 98 percent. Of the 4,323 eligible men identified in the selected subsample of households, 4,121 were successfully interviewed, yielding a 95 percent response rate. Response rates were higher in rural than urban areas, especially for eligible men.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Nepal 2011  $\,$ 

	Resi		
Result	Urban	Rural	Total
Household interviews Households selected Households occupied Households interviewed	3,331 3,182 3,148	8,022 7,706 7,678	11,353 10,888 10,826
Household response rate <sup>1</sup>	98.9	99.6	99.4
Interviews with women age 15-49 Number of eligible women Number of eligible women interviewed	3,822 3,701	9,096 8,973	12,918 12,674
Eligible women response rate <sup>2</sup>	96.8	98.6	98.1
Interviews with men age 15-49 Number of eligible men Number of eligible men interviewed	1,451 1,351	2,872 2,770	4,323 4,121
Eligible men response rate <sup>2</sup>	93.1	96.4	95.3

<sup>1</sup> Households interviewed/households occupied <sup>2</sup> Respondents interviewed/eligible respondents

## Key Findings:

- The vast majority of households in Nepal (89 percent) have access to an improved source of drinking water.
- Thirty-eight percent of households have an improved toilet facility that is not shared with other households.
- Seventy-six percent of households have electricity.
- Forty percent of households are exposed daily to secondhand smoke.
- A large proportion of the Nepalese population (37 percent) is under age 15.
- Twenty-eight percent of households are female-headed.
- Fifty-seven percent of households have at least one person who has migrated at some time in the past 10 years.
- Only one in two households in Nepal (49 percent) is food secure and has access to food year round.

This chapter provides an overview of demographic and socioeconomic characteristics of the household population, including information on housing facilities and characteristics, household assets, wealth status, education, and food security; these data serve as a basis for understanding the socioeconomic status of households. In addition, information is provided on migration, which plays a vital role in demographic dimensions, especially within the context of Nepal. Finally, the chapter presents information on birth registration, children's living arrangements and orphanhood, and children's educational attainment, helping provide an understanding of the general social environment in which children live.

In the 2011 NDHS, a household is defined as a person or group of related and unrelated persons who usually live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as the head of the household, and who have common cooking and eating arrangements.

Information is collected from all usual residents of a selected household (de jure population) as well as persons who had stayed in the selected household the night before the interview (de facto population). The difference between these two populations is very small, and all tables in this report refer to the de facto population unless otherwise specified, to maintain comparability with other DHS reports.

## 2.1 HOUSEHOLD CHARACTERISTICS

Access to basic utilities, sources of drinking water and water treatment practices, access to sanitation facilities, housing structure and crowdedness of dwelling spaces, and type of fuel used for cooking are physical characteristics of a household that are used to assess the general well-being and socioeconomic status of household members. Millennium Development Goal 7 (MDG 7), which focuses on environmental sustainability, is measured according to the percentage of the population using solid fuels, the percentage with sustainable access to an improved water source, and the percentage with access to improved sanitation (National Planning Commission [NPC], 2010a).

This section provides information from the 2011 NDHS on household drinking water, household sanitation facilities, hand-washing practices, housing characteristics, and possession of basic amenities and utilities.

## 2.1.1 Water and Sanitation

The basic determinants of better health, such as access to safe water, and sanitation, are still in a critical state in Nepal. Poor access to safe drinking water and sanitation facilities and poor hygiene are associated with

skin diseases, acute respiratory infection (ARI), and diarrheal diseases, the leading preventable diseases. ARI and diarrheal diseases remain the leading causes of child deaths in Nepal. Among the top 10 causes of morbidity observed in outpatient visits in the country's health institutions are gastritis, intestinal worm infestations, ARI/lower respiratory tract infections, headaches/migraines, upper respiratory tract infections, impetigo and noninfectious diarrhea, presumed noninfectious diarrhea, and amoebic dysentery (Ministry of Health and Population [MOHP], 2011a).

Table 2.1 presents the percent distribution of households and the de jure population, according to urban or rural setting, by source of drinking water, time taken to obtain drinking water, regularity of water source, and water treatment practices adopted by households.

#### Table 2.1 Household drinking water

Percent distribution of households and de jure population by source of drinking water, time to obtain drinking water, and treatment of drinking water, according to residence, Nepal 2011

_		Households			Population	ition	
Characteristic	Urban	Rural	Total	Urban	Rural	Total	
Source of drinking water							
Improved source							
Piped into dwelling/yard/plot	42.6	19.0	22.4	41.0	17.5	20.6	
Public tap/standpipe	12.6	26.5	24.5	12.1	25.4	23.6	
Tube well or borehole	31.0	40.2	38.9	33.6	43.0	41.7	
Protected well	3.3	1.7	1.9	3.7	1.5	1.8	
Protected spring	0.1	0.2	0.2	0.1	0.2	0.2	
Rain water	0.0	0.0	0.0	0.0	0.1	0.0	
Bottled water	3.7	0.4	0.9	2.9	0.3	0.6	
Non-improved source							
Unprotected well	2.2	2.1	2.1	2.5	2.1	2.2	
Unprotected spring	0.2	1.1	1.0	0.2	1.1	1.0	
Tanker truck/cart with drum	1.8	0.5	0.7	1.5	0.4	0.6	
Surface water	2.2	8.1	7.3	2.1	8.5	7.7	
Other source	0.2	0.0	0.0	0.2	0.0	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Percentage using any improved							
source of drinking water	93.4	88.1	88.9	93.5	87.8	88.6	
Time to obtain drinking water							
<b>(round trip)</b> Water on premises	79.1	53.9	57.5	79.2	55.0	58.2	
Less than 30 minutes							
	16.9	38.4	35.3	17.0	37.3	34.7	
30 minutes or longer	3.8	7.6	7.1	3.8	7.6	7.1	
Don't know/missing	0.1	0.0	0.1	0.1	0.1	0.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Use of water source							
(regularity)							
All year	93.5	94.3	94.2	93.8	94.5	94.4	
Part of the year	6.5	5.6	5.8	6.2	5.4	5.5	
Total	100.0	100.0	100.0	100.0	99.9	100.0	
Water treatment prior to drinking <sup>1</sup>							
Boiled	20.9	6.5	8.6	20.5	5.5	7.5	
Bleach/chlorine added	4.0	1.0	1.4	4.0	1.0	1.4	
Strained through cloth	1.4	1.4	1.4	1.4	1.3	1.3	
Ceramic, sand, or other filter	34.3	6.3	10.3	33.2	5.3	8.9	
Solar disinfection	1.4	0.3	0.4	1.2	0.2	0.3	
Other	0.3	0.0	0.2	0.4	0.2	0.2	
No treatment	54.1	86.9	82.2	55.5	88.6	84.2	
	0	00.0	02.2	00.0	00.0	0112	
Percentage using an							
appropriate treatment $method^2$	45.0	10.0	47.0	44.0	14.0	45 0	
method <sup>2</sup>	45.8	12.9	17.6	44.3	11.2	15.6	
Number	1,546	9,280	10,826	6,338	41,785	48,123	

<sup>2</sup> Respondents may report multiple treatment methods, so the sum of treatment may exceed 100 percent. <sup>2</sup> Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

Most households in Nepal (89 percent) obtain drinking water from an improved source, while 11 percent still rely on non-improved sources. There has been some improvement in access to an improved water source since 2006, when 82 percent of the households used an improved source of drinking water (MOHP, New ERA, and Macro International, 2007). Households in urban areas have greater access to an improved source of drinking water than households in rural areas (93 percent versus 88 percent), but the urban-rural gap has narrowed in the last five years. The most common source of drinking water in urban areas is water piped into the

dwelling/yard/plot, with more than two-fifths of households having access to this source. In contrast, a tube well or borehole is the most common source of drinking water in rural areas, used by two-fifths of households. Fiftyeight percent of households have a source of drinking water within their premises, compared to 46 percent five years ago.

Thirty-five percent of households spend less than 30 minutes on gathering water, while about 7 percent of households spend 30 minutes or longer. Accessing drinking water takes longer in rural areas than urban areas, with 8 percent of households taking 30 minutes or more to obtain water. There has been little change in the past five years in the time taken to access drinking water. The vast majority of households are able to access drinking water from their main source all year (94 percent), with little urban-rural difference.

The majority of households (82 percent) do not treat drinking water, and rural households are particularly likely not to do so (87 percent, compared to 54 percent of urban households). Forty-six percent of households in urban areas treat drinking water, compared to 13 percent in rural areas. Overall, a ceramic, sand, or other filter is the most common treatment method (10 percent), followed by boiling water prior to drinking (9 percent).

Table 2.2 presents information on household sanitation facilities by type of toilet/latrine. Nearly two in five households (38 percent) have an improved (not shared) toilet facility; 19 percent use a facility that would be considered improved if it were not shared with other households. Facilities that are shared are not considered to be as hygienic as those that are not shared. About two in five households use a non-improved toilet facility (43 percent). Thirty-six percent of households still use a bush or open field for defecation, but this is an improvement over 2006, when one in two households had no toilet facility (MOHP, New ERA, and Macro International, 2007). Rural households are more likely than urban households not to have a toilet facility (40 percent versus 9 percent).

		Households		Population			
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total	
Improved, not shared facility Flush/pour flush to piped sewer	52.5	35.8	38.2	58.1	36.7	39.5	
system	15.9	1.4	3.5	18.0	1.3	3.5	
Flush/pour flush to septic tank	32.0	23.7	24.9	35.0	23.9	25.4	
Flush/pour flush to pit latrine	2.1	3.3	3.1	2.3	3.4	3.3	
Ventilated improved pit (VIP) latrine	0.4	0.6	0.6	0.4	0.6	0.6	
Pit latrine with slab	2.1	6.6	6.0	2.4	7.3	6.7	
Composting toilet	0.0	0.2	0.2	0.0	0.2	0.2	
Shared facility <sup>1</sup> Flush/pour flush to piped sewer	36.7	15.9	18.9	29.5	12.6	14.9	
system	11.4	1.7	3.1	8.4	1.2	2.2	
Flush/pour flush to septic tank	22.6	10.0	11.8	18.7	7.7	9.2	
Flush/pour flush to pit latrine	1.2	1.3	1.3	1.0	1.1	1.1	
Ventilated improved pit (VIP) latrine	0.3	0.3	0.3	0.3	0.3	0.3	
Pit latrine with slab	1.2	2.6	2.4	1.1	2.3	2.1	
Non-improved facility Flush/pour flush not to sewer/septic	10.8	48.3	42.9	12.4	50.6	45.6	
tank/pit latrine	0.4	0.3	0.3	0.4	0.2	0.3	
Pit latrine without slab/open pit	1.6	8.0	7.1	1.7	7.7	6.9	
No facility/bush/field	8.7	39.9	35.5	10.3	42.7	38.4	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Number	1,546	9,280	10,826	6,338	41,785	48,123	

#### Table 2.2 Household sanitation facilities

Note: Total includes three households using bucket under non-improved facility not shown separately. <sup>1</sup> Facilities that would be considered improved if they were not shared by two or more households

Hand washing, which provides protection against communicable diseases, is promoted by the government of Nepal and included in the framework of the Nepal Health Sector Program II (MOHP, 2010a).

Table 2.3 provides information on designated places for hand washing in households and the use of water and cleansing agents for washing hands according to place of residence (urban, rural), ecological region, and wealth quintile.

Interviewers were instructed to observe the place where household members usually washed their hands. They looked for regularity of water supply and observed whether households had cleansing agents near the place of hand washing. Such observations were made in almost all selected households.

About half of households (48 percent) had soap and water at the place where household members washed their hands, 16 percent had water and other cleansing agents (ash, mud, sand, etc.), 17 percent had water only, and 2 percent had soap but no water. Overall, 14 percent of households did not have water or any cleansing agent. In general, these households did not have a fixed designated place for hand washing.

#### Table 2.3 Hand washing

Percentage of households in which the place most often used for washing hands was observed, and among households in which the place for hand washing was observed, percent distribution by availability of water, soap, and other cleansing agents, Nepal 2011

	Percentage		Among households where place for hand washing was observed, households that had:						had:	
of households where place for washing Background hands was Number of characteristic observed households	Soap and water <sup>1</sup>	Water and cleansing agent <sup>2</sup> other than soap only	Water only	Soap but no water <sup>3</sup>	Cleansing agent other than soap only <sup>2</sup>	No water, no soap, no other cleansing agent	Total	Number of households with place for hand washing observed		
Residence										
Urban	99.4	1,546	75.6	6.3	10.8	1.6	0.8	4.8	100.0	1,536
Rural	99.8	9,280	43.2	17.4	18.1	1.6	4.3	15.4	100.0	9,258
Ecological zone										
Mountain	99.9	761	27.1	19.3	15.2	2.0	6.7	29.6	100.0	760
Hill	99.6	4,563	44.9	15.1	14.9	2.4	5.9	16.8	100.0	4,545
Terai	99.8	5,502	53.1	15.9	19.1	0.9	1.7	9.3	100.0	5,489
Wealth guintile										
Lowest	99.9	2,029	10.0	21.5	20.1	1.9	10.2	36.3	100.0	2,027
Second	99.8	2,168	23.4	25.8	25.2	1.6	5.8	18.2	100.0	2,163
Middle	99.7	2,068	41.2	22.6	21.6	2.0	2.7	9.9	100.0	2,062
Fourth	99.8	2,185	68.4	9.8	13.5	1.3	1.2	5.9	100.0	2,181
Highest	99.3	2,377	89.4	1.4	6.2	1.4	0.0	1.6	100.0	2,361
Total	99.7	10,826	47.8	15.8	17.0	1.6	3.8	13.9	100.0	10,793

<sup>1</sup> Soap includes soap or detergent in bar, liquid, powder, or paste form. This column includes households with soap and water only as well as those that had soap and water and another cleansing agent.

Cleansing agents other than soap include locally available materials such as ash, mud, or sand.

Seventy-six percent of the households in urban areas had soap and water, compared to 43 percent of rural households. More than half of households (53 percent) in the terai had soap and water, compared to 45 percent of households in the hill zone and 27 percent of households in the mountain zone. Thirty percent of the households in the mountain region did not have water or any cleansing agents for hand washing. Soap and water was very common (89 percent) among households in the highest wealth quintile but much less so in the lowest wealth quintile (10 percent)<sup>1</sup>. Thirty-six percent of households in the lowest quintile had a designated place for hand washing but did not have water and cleansing agents.

## 2.1.2 Housing Characteristics

Housing characteristics and household assets can be used as a measure of the socioeconomic status of household members. Cooking practices and cooking fuels also impact the health of family members and the environment. For example, use of biomass fuels exposes household members to indoor pollution, which has a direct bearing on their health and surroundings.

Table 2.4 presents information on the availability of electricity, type of flooring material, number of rooms for sleeping, type of fuel used for cooking, and place where cooking is done. The table shows that 76 percent of households in Nepal have access to electricity. This is a marked improvement from the 2006 NDHS, which showed that only 51 percent of households had access to electricity. Access to electricity has increased sharply in rural areas in the last five years, with 73 percent of rural households having electricity in 2011 as compared to 43 percent in 2006. This increase can be partially attributed to the rural electrification programs implemented in recent years, including decentralized small hydropower plants, micro-hydropower plants, and

<sup>&</sup>lt;sup>1</sup> Refer to Section 2.2 for details on the wealth index.

solar energy and biomass sources (ITECO, 2011; Rai, 2010). Urban electricity availability has also been on the rise, with 97 percent of urban households having access to electricity in 2011, compared to 90 percent in 2006.

Earth and sand are the most common flooring materials used in Nepalese households (66 percent), and these materials are predominantly used in rural areas (73 percent). The use of cement has increased in the past five years from 11 percent to 22 percent, with increases seen in both urban and rural areas. Urban households remain more likely to use cement (42 percent) than rural households (18 percent). Eight percent of households use carpet as flooring material.

The number of rooms used for sleeping provides an indication of the extent of crowding in households. Overcrowding increases the risk of contracting infectious diseases such as acute respiratory infections and skin diseases, which particularly affect children and the elderly population. The proportion of households using one room for sleeping has decreased from 42 percent to 33 percent in the last five years.

The presence and extent of indoor pollution are dependent on cooking practices, places used for cooking, and types of fuel used. According to the 2011 NDHS, 71 percent of households cook inside the house, while 20 percent cook in a separate building and 8 percent cook outdoors. The percentage of households that cook within the dwelling unit is higher in urban areas (79 percent) than in rural areas (70 percent). About one in five households in rural areas cooks in a separate building.

Coal, lignite, charcoal, and wood are the fuels most commonly used for cooking, reported by 66 percent of households. Use of these fuels is more common in rural areas (73 percent) than in urban areas (28 percent). On the other hand, use of liquid petroleum gas, natural gas, and biogas is much more common in urban (68 percent) than rural (16 percent) areas. Use of gas for cooking has increased significantly in the past five years in both urban and rural households. Use of solid fuel for cooking has declined from 83 percent in 2006 to 75 percent in 2011, primarily due to a decline in rural areas. More than 8 in 10 rural households use solid fuel for cooking, compared with 3 in 10 households in urban areas.

A major concern for the government of Nepal is the effect of secondhand smoke (SHS) on the health of children and neonates. The purpose of the Tobacco Related Products (Control and Regulation) Act of 2011 is to control tobacco and tobacco-related product use

Table 2.4 Household characteristics

Percent distribution of households by housing characteristics, percentage using solid fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, Nepal 2011

Housing		dence	
characteristic	Urban	Rural	Total
Electricity			
Yes	97.0	72.9	76.3
No	3.0	27.1	23.7
Total	100.0	100.0	100.0
Flooring material		70.0	05.7
Earth, sand	20.0	73.3 0.5	65.7 0.4
Dung Wood/planks	0.3 0.6	1.9	1.7
Parquet or polished wood	1.2	0.3	0.4
Vinyl or asphalt strips	5.3	1.1	1.7
Ceramic tiles	0.9	0.2	0.3
Cement Carpet	42.0 29.5	18.3 4.4	21.7 8.0
Other	0.2	0.1	0.0
Total	100.0	100.0	100.0
Rooms used for sleeping			
One	36.3	32.8	33.3
Two	32.6	36.2	35.7
Three or more Missing	31.0 0.1	30.9 0.2	30.9 0.2
0			
Total	100.0	100.0	100.0
Place for cooking In the house	79.0	70.1	71.4
In a separate building	14.5	20.6	19.7
Outdoors	5.7	8.5	8.1
Other	0.1	0.0	0.0
No food cooked in household	0.8	0.7	0.7
Total	100.0	100.0	100.0
Cooking fuel	10010	10010	
Electricity	0.2	0.1	0.1
LPG, natural gas, biogas	67.6	16.2	23.5
Kerosene	2.0	0.3	0.5
Coal, lignite, charcoal, wood	28.1	72.6	66.2
Agricultural crop, straw,	2011	. 2.0	00.2
shrubs, grass	0.3	4.7	4.1
Animal dung	1.0	5.4	4.8
No food cooked in household	0.8	0.7	0.7
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking <sup>1</sup>	29.3	82.7	75.1
Frequency of smoking in	23.0	02.1	70.1
<b>the home</b> Daily	26.2	41.9	39.6
Weekly	4.1	5.3	5.1
Monthly	3.0	3.8	3.7
Less than monthly	6.4	7.5	7.4
Never	60.3	41.5	44.2
Total Number	100.0 1,546	100.0 9,280	100.0 10,826

<sup>1</sup> Includes coal/lignite, charcoal, wood/straw/shrubs/grass, agricultural crops, and animal dung

LPG = Liquefied petroleum gas

and distribution (Nepal Law Commission, 2011). Information on smoking was collected in the 2011 NDHS to assess the percentage of households exposed to SHS, which is a risk factor for children and adults who do not smoke. Pregnant women who are exposed to SHS have a higher risk of giving birth to a low birth weight baby (Windham et al., 1999). Also, children who are exposed to SHS are at a higher risk of respiratory and ear infections and poor lung development (U.S. Department of Health and Human Services, 2006). Table 2.4 provides information on household exposure to SHS according to frequency of smoking, used here as a proxy for level of SHS exposure. Forty percent of households are exposed daily to SHS, and rural households (42 percent) are more likely to be exposed than urban households (26 percent).

#### Household Possessions 2.1.3

Possession of durable consumer goods is another useful indicator of household socioeconomic status. The possession and use of household durable goods have multiple effects and implications. For instance, having access to a radio or television exposes household members to updated daily events, information, and educational materials. Similarly, a refrigerator prolongs food storage and keeps food fresh and hygienic. A means of transportation allows greater access to services away from the local area and enhances social and economic activities. The 2011 NDHS collected information on possession of durable commodities, means of transportation, and ownership of agricultural land and farm animals.

Table 2.5 shows that radios, televisions, and mobile telephones are very common information and communication devices possessed by most households. Possession of mobile phones has sharply increased from 6 percent in 2006 to 75 percent in 2011. More than 9 in 10 households in urban areas and 7 in 10 households in rural areas possess mobile phones. Half of households have a radio, and a similar proportion have a television. Urban households are slightly more likely to possess a radio (54 percent) than rural households (50 percent). Seventy-six percent of urban households and 42 percent of rural households possess a television. Possession of a radio has decreased from 61 percent to 50 percent in the last five years, while ownership of a television has increased from 28 percent to 47 percent. A refrigerator is available in 11 percent of households, with urban households more than three times as likely (29 percent) as rural households (8 percent) to own one. Ninety-one percent of households in the country possess a bed. Households possessing computers have increased from 2 percent in 2006 to 8 percent in 2011, with a marked increase in urban areas (from 8 percent to 24 percent).

Table 2.5 Household possessions			
Percentage of households poss transportation, agricultural land, and			
	Resi	dence	
Possession	Urban	Rural	Total
Household effects			
Radio	53.6	49.8	50.3
Television	76.2	42.0	46.9
Mobile telephone	91.6	71.9	74.7
Non-mobile telephone	25.7	6.8	9.5
Refrigerator	29.3	7.5	10.6
Table	79.8	48.5	53.0
Chair	71.7	42.8	46.9
Bed	97.9	90.2	91.3
Sofa	33.4	10.4	13.7
Cupboard	66.5	38.5	42.5
Computer	23.8	4.9	7.6
Clock	69.0	39.5	43.7
Fan	65.9	33.0	37.7
Dhiki	15.7	38.8	35.5
Means of transport			
Bicycle/rickshaw	42.1	39.3	39.7
Animal-drawn cart	1.2	3.2	3.0
Motorcycle/scooter	27.8	8.0	10.9
Car/truck/tempo	6.0	1.7	2.3
Ownership of agricultural land	45.1	71.3	67.6
Ownership of farm animals <sup>1</sup>	29.7	78.4	71.4
Number	1,546	9,280	10,826
<sup>1</sup> Buffalo, milk cows, bulls, horses, d	onkeys, mules, g	oats, sheep, chic	kens, ducks, pigs,

or vaks

Bicycles and rickshaws continue to be the most common means of transportation in Nepal; two in five households own a bicycle or rickshaw, with little difference between rural and urban households. Ownership of a motorcycle is much more common in urban areas (28 percent) than in rural areas (8 percent).

Nepal is predominantly agricultural, with a large proportion of the population engaged in this sector. NDHS data indicate that 68 percent of households own agricultural land, with rural households more likely to own land (71 percent) than urban households (45 percent). Seventy-one percent of households in the country possess farm animals. Almost 80 percent of rural households own farm animals, as compared with 30 percent of urban households.

## 2.2 SOCIOECONOMIC STATUS INDEX

The wealth index used in this survey is a measure that has been used in many DHS and other countrylevel surveys to indicate inequalities in household characteristics, in the use of health and other services, and in health outcomes (Rutstein et al., 2000). It serves as an indicator of level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The index was constructed using household asset data via a principal components analysis.

In its current form, which takes better account of urban-rural differences in scores and indicators of wealth, the wealth index is created in three steps. In the first step, a subset of indicators common to urban and rural areas is used to create wealth scores for households in both areas. Categorical variables to be used are transformed into separate dichotomous (0-1) indicators. These indicators and those that are continuous are then examined using a principal components analysis to produce a common factor score for each household. In the second step, separate factor scores are produced for households in urban and rural areas using area-specific indicators. The third step combines the separate area-specific factor scores to produce a nationally applicable combined wealth index by adjusting area-specific scores through a regression on the common factor scores. This three-step procedure permits greater adaptability of the wealth index in both urban and rural areas. The resulting combined wealth index has a mean of zero and a standard deviation of one. Once the index is computed, national-level wealth quintiles (from lowest to highest) are obtained by assigning the household score to each de jure household member, ranking each person in the population by his or her score, and then dividing the ranking into five equal categories, each comprising 20 percent of the population.

Table 2.6 presents distributions across the five wealth quintiles by residence, ecological region, development region, and subregion. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed according to geographic area.

An overwhelming majority of urban residents (62 percent) are from the richest quintile, while a much lower proportion of rural residents (14 percent) fall in the same category. Rural households are almost equally distributed in the lowest, second, and middle wealth quintiles (around 22 percent each). Among the three ecological zones, the population in the terai (23 percent) is more likely to fall in the highest wealth quintile than the population living in the hill zone (20 percent). Less than 1 percent of the population in the mountain zone (0.5 percent) is in the highest wealth quintile. Within the hill zone, 49 percent of households in the Central hill subregion (which includes the Kathmandu Valley) are in the wealthiest quintile. On the other hand, the Western mountain subregion has the highest proportion of the population in the lowest wealth quintile (60 percent). Among the development regions, the Central, Western, and Eastern regions have large population segments in the highest wealth quintile. Relatively smaller proportions of households in the Mid-western (10 percent) and Far-western (8 percent) regions fall in the highest quintile.

		١	Nealth quintile		Number of	Gini		
Residence/region	Lowest	Second	Middle	Fourth	Highest	Total		coefficien
Residence								
Urban	3.1	3.3	7.8	23.6	62.3	100.0	6,338	0.12
Rural	22.6	22.5	21.8	19.5	13.6	100.0	41,785	0.22
Ecological zone								
Mountain	41.4	30.7	19.8	7.7	0.5	100.0	3,358	0.18
Hill	31.9	21.1	14.6	12.5	19.9	100.0	19,501	0.28
Terai	8.0	17.8	24.2	27.4	22.7	100.0	25,264	0.21
Development region								
Eastern	16.2	18.9	20.3	23.8	20.9	100.0	11,481	0.21
Central	13.7	18.8	20.7	20.7	26.1	100.0	16,011	0.24
Western	14.8	21.4	20.9	22.0	21.0	100.0	9,895	0.22
Mid-western	41.5	20.1	16.3	12.1	10.0	100.0	5,911	0.24
Far-western	34.5	23.7	19.5	14.3	7.9	100.0	4,826	0.20
Subregion								
Eastern mountain	37.1	28.5	23.4	10.0	1.0	100.0	904	0.17
Central mountain	18.9	41.3	29.3	9.9	0.6	100.0	1,021	0.10
Western mountain	60.1	24.5	10.7	4.7	0.1	100.0	1,433	0.17
Eastern hill	34.4	27.9	19.5	14.0	4.2	100.0	3,703	0.18
Central hill	19.8	13.2	5.0	12.8	49.2	100.0	5,679	0.23
Western hill	23.3	26.2	22.9	14.9	12.7	100.0	5,757	0.24
Mid-western hill	55.8	17.4	10.7	9.2	6.9	100.0	2,648	0.25
Far-western hill	58.6	21.0	13.9	6.0	0.5	100.0	1,714	0.14
Eastern terai	3.6	12.7	20.3	30.9	32.4	100.0	6,874	0.18
Central terai	9.4	19.7	29.3	26.8	14.8	100.0	9,310	0.20
Western terai	2.8	14.8	18.1	31.9	32.4	100.0	4,138	0.20
Mid-western terai	21.1	20.7	23.8	18.3	16.1	100.0	2,519	0.22
Far-western terai	10.1	26.4	26.0	22.0	15.3	100.0	2,422	0.19
Total	20.0	20.0	20.0	20.0	20.0	100.0	48,123	0.24

Table 2.6 also includes information on the Gini coefficient, which indicates the level of concentration of wealth (0 being an equal distribution and 1 a totally unequal distribution). This ratio is expressed as a proportion between 0 and 1. Wealth inequality, as measured by the Gini coefficient, is higher in rural than urban areas. Inequality in wealth is highest in the hill region, the Central and Mid-western development regions, and the Mid-western hill subregion.

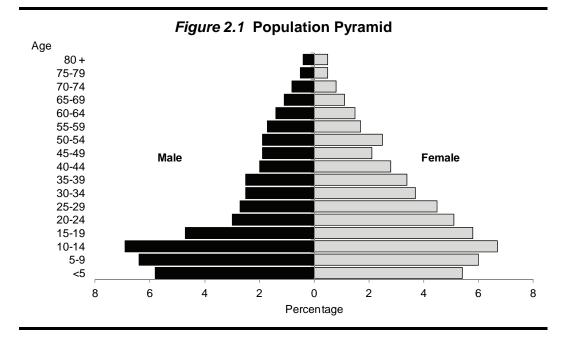
## 2.3 HOUSEHOLD POPULATION BY AGE AND SEX

Table 2.7 shows the distribution of the de facto household population by age and sex according to urban and rural residence. The 2011 NDHS enumerated a total of 47,570 persons (25,667 females and 21,903 males). A large proportion of the Nepalese population (37 percent) is under age 15 (Figure 2.1), although this proportion has declined from 41 percent in 2006. Eleven percent of the population is under five years, a decrease since 2006 indicating a declining trend in fertility. Persons age 65 and over account for about 6 percent of the total population, an increase from 4 percent in 2006. There is a smaller proportion of children under five in urban than rural areas, suggesting that recent declines in fertility are more evident in urban than rural areas and that the transition to lower fertility began with the urban population. The concentration of the population is high in the 10-14 age group, creating pressure for schooling and adolescent care.

Table 2.7 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Nepal 2011

		Urban			Rural			Total	
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	8.2	8.0	8.1	13.3	10.4	11.7	12.6	10.1	11.2
5-9	11.8	9.6	10.7	14.2	11.4	12.7	13.8	11.2	12.4
10-14	11.8	10.9	11.3	15.4	12.6	13.9	14.9	12.4	13.6
15-19	11.8	11.5	11.6	9.9	10.7	10.3	10.1	10.8	10.5
20-24	9.6	10.6	10.1	6.1	9.3	7.9	6.6	9.5	8.2
25-29	7.9	10.3	9.1	5.4	8.0	6.8	5.8	8.3	7.1
30-34	7.7	8.5	8.1	4.9	6.6	5.8	5.3	6.8	6.1
35-39	6.8	6.9	6.8	5.2	6.1	5.7	5.4	6.2	5.9
40-44	5.4	5.5	5.5	4.2	5.0	4.7	4.4	5.1	4.8
45-49	4.4	4.1	4.2	4.1	3.8	3.9	4.2	3.8	4.0
50-54	4.2	4.2	4.2	4.2	4.6	4.4	4.2	4.6	4.4
55-59	3.5	2.8	3.1	3.8	3.2	3.5	3.7	3.2	3.4
60-64	2.3	2.3	2.3	3.1	2.8	3.0	3.0	2.8	2.9
65-69	1.6	1.7	1.7	2.4	2.0	2.2	2.3	2.0	2.1
70-74	1.3	1.2	1.3	1.7	1.5	1.6	1.7	1.4	1.5
75-79	0.7	1.0	0.9	1.2	1.0	1.1	1.1	1.0	1.0
80+	0.9	1.0	1.0	0.8	1.0	0.9	0.9	1.0	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,028	3,250	6,278	18,875	22,417	41,292	21,903	25,667	47,570



The overall sex ratio (the number of males per 100 females) is 85, less than the sex ratio in the 2006 NDHS (89) and the 2011 census (94). It is, however, consistent with the results of the 2010-2011 Nepal Living Standard Survey (NLSS), which indicated that the sex ratio is 86 (Central Bureau of Statistics, 2011c). The sex ratio is lowest in the 20-29 age group, indicating a low proportion of the male population in that group. The sex ratio also differs by residence. Urban areas have a higher sex ratio (93) than rural areas (84). The significantly low proportion of the male population in rural areas could be attributed to greater out-migration, especially movement among those in the working age group to urban areas.

## 2.4 MIGRATION STATUS

The 2011 NDHS collected information on migration among individuals who lived in the interviewed households in the past 10 years but have since moved away. Migrants are people who either move from their place of birth to another area or frequently change their residence. Migration may be seasonal, temporary, semipermanent, or permanent depending on the duration of and reasons for migration within a defined geographical area (KC, 2003). Migration brings significant demographic dynamics to a society and carries socioeconomic implications for both the origin and destination. Culture and customs, opportunities for education and employment, and geographic hardships are among the major causes of migration.

The 2011 NDHS collected information on former household residents who migrated elsewhere in the 10 years prior to the survey. Information was collected by sex, age, date of migration, cause of migration, and destination. These data provide information on period migration and lifetime migration. Period migration simply indicates the mobility patterns of internal migrants five years before the survey in terms of where they were living then. Lifetime migration, on the other hand, indicates a permanent shift in place of residence since more than five years prior to the survey.

Fifty-seven percent of households reported that at least one person had migrated away from the household at some time in the past 10 years. Among households that reported migration of former residents, on average about two persons were likely to have migrated.

Table 2.8 provides a brief overview of the background characteristics of the migrant population. Two-thirds migrate at the age of 24 or younger. Twenty-two percent of men migrate at age 20-24, whereas women are most likely to migrate at an earlier age (15-19 years), primarily due to marriage. Overall, 74 percent of males migrate before age 30, while almost 84 percent of females migrate before age 25.

Men migrate mostly for work (72 percent), while women primarily migrate due to marriage (54 percent). Another common reason for migrating is educational pursuits, with 17 percent of men and 14

Table 2.8	Migration status

Percent distribution of men and women who migrated in the 10 years before the survey by selected background characteristics, Nepal 2011

Background characteristic	Men	Women	Total
Age at migration			
<15	16.3	20.2	18.0
15-19	19.5	35.5	26.2
20-24	22.4 15.4	28.1	24.8
25-29 30-34	15.4	8.4 3.4	12.4 7.4
35-39	7.8	3.4 1.7	5.2
40-44	4.2	0.8	2.8
45-49	1.9	0.6	1.4
50+	2.1	1.2	1.8
Total	100.0	100.0	100.0
Reason for migration			
Work	72.3	9.1	45.6
Study	17.2	14.0	15.8
Marriage	0.3	54.4	23.2
Family reasons	9.4	21.9	14.7
Security	0.1	0.1	0.1
Other Don't know	0.7 0.1	0.5 0.1	0.6 0.1
Total			
Residence	100.0	100.0	100.0
Urban	9.2	10.2	9.6
Rural	90.8	89.8	90.4
Total	100.0	100.0	100.0
Ecological zone			
Mountain	7.4	7.1	7.3
Hill	42.8	44.9	43.7
Terai	49.8	48.0	49.0
Total	100.0	100.0	100.0
Development region			
Eastern	25.8	26.2	26.0
Central	29.8	31.0	30.3
Western	24.5	24.9	24.7
Mid-western	9.8	9.5	9.7
Far-western	10.0	8.5	9.4
Total	100.0	100.0	100.0
Subregion Eastern mountain	2.0	2.0	2.0
Central mountain	3.1	3.0	3.1
Western mountain	2.2	2.1	2.2
Eastern hill	8.9	9.5	9.2
Central hill	9.0	11.1	9.9
Western hill	16.4	17.1	16.7
Mid-western hill	5.2	4.4	4.9
Far-western hill	3.3	2.7	3.0
Eastern terai Central terai	14.9	14.6	14.8
Western terai	17.6 8.1	16.9 7.8	17.3 8.0
Mid-western terai	3.7	3.9	3.7
Far-western terai	5.5	4.8	5.2
Total	100.0	100.0	100.0
Wealth quintile			
Lowest	18.1	17.0	17.6
Second	22.9	22.5	22.7
Middle	21.3	20.9	21.1
Fourth	20.3	20.4	20.4
Highest	17.3	19.2	18.1
Total	100.0	100.0	100.0
Number of men and			
women who migrated			
women who migrated in the past 10 years	6,829	5,002	11,831

percent of women citing this as a reason. Women also tend to migrate due to family reasons, such as accompanying their spouse or accompanying their children who move to urban areas for education.

The vast majority of migrants are from rural areas and from the hill and terai regions. Nearly half of migrants come from the Central and Eastern terai and the Western hill region.

Table 2.9.1 shows information for male migrants. An assessment of time since migration shows that the majority of male migrants (85 percent) moved out within the five years prior to the survey, indicating a high proportion of period migration. Fifteen percent of migrants migrated more than five years before the survey.

Migration within Nepal is high, with almost half of migrants moving within the country. The most popular out-of-country destination for Nepalese migrants is India, to which 20 percent of all male migrants relocate. One-third of male migrants move to countries other than India, with the most popular destinations being countries in the Middle East and Malaysia. Among men migrating for work, the majority migrated within the last five years, indicating a recent outflux of labor migration. Those migrating for work are most likely to go to countries other than India (44 percent). A quarter of such men migrate to India, while 32 percent move internally within Nepal.

#### Table 2.9.1 Migration status: Men

Percentage of male migrants by years since migration and percent distribution of male migrants by destination, according to background characteristics and reason for migration, Nepal 2011

	Tim	ne since migra	ation		Des	tination		_ Number of
Background characteristic	<1 year	<5 years <sup>1</sup>	5+ years	Within Nepal	India	Other countries	Total	male
Age at migration								
<15	30.8	80.1	19.9	81.0	18.0	1.0	100.0	1,115
15-19	31.4	81.9	18.1	60.8	22.6	16.5	100.0	1,330
20-24	36.5	84.6	15.4	37.2	17.6	45.1	100.0	1,527
25-29	40.3	87.3	12.7	32.1	18.4	49.0	100.0	1,049
30-34	38.6	89.4	10.6	24.5	17.6	57.8	100.0	708
35-39	47.9	90.9	9.1	25.9	20.9	53.2	100.0	532
40-44	39.0	86.2	13.8	36.6	18.8	44.4	100.0	289
45-49	50.3	93.9	6.1	37.4	31.2	31.4	100.0	132
50+	55.8	88.9	11.1	51.9	38.9	8.7	100.0	146
Reason for migration Work	40.1	86.8	13.2	31.8	24.0	44.2	100.0	4.026
Study	27.8	82.8	17.2	86.2	24.0 4.7	9.0	100.0	4,936 1,172
Family reasons	32.1	02.0 78.5	21.5	80.8	16.9	2.2	100.0	642
Other	23.1	67.9	32.1	79.5	7.7	8.9	100.0	78
	20.1	07.5	52.1	15.5		0.0	100.0	10
Residence Urban	35.6	84.6	15.4	45.0	15.1	39.7	100.0	627
Rural	37.2	85.1	14.9	46.4	20.3	33.2	100.0	6,202
Ecological zone								-, -
Mountain	37.9	82.5	17.5	65.9	13.3	20.4	100.0	504
Hill	32.6	81.6	18.4	50.4	17.3	32.2	100.0	2,926
Terai	40.7	88.5	11.5	39.8	22.9	37.2	100.0	3,399
		0010		0010		0112		0,000
Development region Eastern	35.5	87.6	12.4	42.3	11.4	46.1	100.0	1,764
Central	38.1	87.1	12.4	52.7	12.5	34.6	100.0	2,033
Western	31.4	80.8	19.2	43.1	18.3	38.6	100.0	1,676
Mid-western	41.7	81.8	18.2	52.0	31.4	16.5	100.0	670
Far-western	46.8	86.7	13.3	39.4	55.4	5.2	100.0	686
Subregion								
Eastern mountain	31.5	84.2	15.8	53.6	3.1	42.1	100.0	139
Central mountain	36.2	77.2	22.8	72.8	7.3	19.9	100.0	214
Western mountain	46.1	88.5	11.5	67.5	31.2	1.4	100.0	151
Eastern hill	32.7	87.2	12.8	49.2	7.3	43.6	100.0	607
Central hill	35.3	83.3	16.7	59.9	5.5	34.3	100.0	617
Western hill	26.6	77.5	22.5	49.7	14.5	35.8	100.0	1,122
Mid-western hill	40.0	81.0	19.0	47.8	36.3	15.7	100.0	354
Far-western hill	43.4	83.3	16.7	35.7	60.4	3.9	100.0	226
Eastern terai	37.8	88.2	11.8	36.7	15.1	48.2	100.0	1,018
Central terai	39.9	90.7	9.3	45.4	17.0	37.3	100.0	1,202
Western terai	41.1	87.5	12.5	29.8	25.9	44.3	100.0	553
Mid-western terai	46.8	82.5	17.5	53.6	24.8	21.6	100.0	251
Far-western terai	46.6	87.4	12.6	35.5	57.7	6.8	100.0	375
Wealth quintile	20.0	05.0	4 4 4	44.0	20.0	20.0	100.0	4 007
Lowest	38.8	85.6	14.4	44.3	32.9	22.6	100.0	1,237
Second	40.5	86.5	13.5	49.9	24.0	25.8	100.0	1,565
Middle Fourth	38.8 35.2	83.3 85.3	16.7 14.7	45.4 45.7	18.2 14.2	36.4 40.1	100.0 100.0	1,453
Highest	35.2 30.6	85.3 84.6	14.7	45.7 45.2	9.1	40.1	100.0	1,390 1,185
-								
Total	37.0	85.1	14.9	46.3	19.8	33.8	100.0	6,829

Note: Total includes six men with missing information on destination not shown separately. <sup>1</sup> Includes those who migrated since less than a year prior to the survey

A higher proportion of urban than rural migrants go to other countries (40 percent versus 33 percent). Migrants from the terai are most likely to migrate to India and other countries, while those from the mountain (66 percent) and hill (50 percent) zones are more likely to migrate within the country. The majority of male migrants from the Far-western region move to India (55 percent), and very few go to other countries. On the other hand, the largest proportion of male migrants from the Eastern region go to countries other than India (46 percent). Men from the highest wealth quintile are more likely to migrate to other countries (46 percent) than those from the lowest wealth quintile (23 percent).

Table 2.9.2 shows the migration status of women. One in four women had migrated within one year, 72 percent within five 5 years, and 28 percent five or more years prior to the survey. Eighty-six percent of women who migrated moved within Nepal. Eight percent migrated to India and very few to other countries. About one-third of women who migrated for work moved to countries other than India. Women were less likely to migrate to other countries for non-work-related reasons. Women in the Far-western terai were more likely to migrate to India, primarily due to cross-border marriage practices. India was the second common destination for women migrates from the lowest wealth quintile, while those in the highest wealth quintile were more likely to migrate to other countries.

#### Table 2.9.2 Migration status: Women

Percentage of female migrants by years since migration and percent distribution of female migrants by destination, according to background characteristics and reason for migration, Nepal 2011

	Tir	ne since migra	tion		Destination			Number of
Background characteristic	<1 year	<5 years <sup>1</sup>	5+ years	Within Nepal	India	Other countries	Total	female migrants
Age at migration								
<15	24.5	71.9	28.1	87.9	10.8	1.1	100.0	1,011
15-19	18.8	66.4	33.6	91.3	6.9	1.8	100.0	1,775
20-24	24.0	73.1	26.9	88.4	6.2	5.5	100.0	1,405
25-29	28.2	76.5	23.5	72.0	11.8	16.2	100.0	418
30-34	36.0	83.6	16.4	70.5	10.8	17.6	100.0	170
35-39	41.1	89.3	10.7	60.8	14.3	24.9	100.0	87
40-44	(30.4)	(72.4)	(27.6)	(56.8)	(20.5)	(22.8)	100.0	41
45-49	(49.5)	(77.4)	(22.6)	(63.8)	(17.9)	(18.3)	100.0	31
50+	40.7	86.6	13.4	84.4	5.3	10.4	100.0	62
Reason for migration								
Work	35.1	89.8	10.2	56.8	7.7	35.1	100.0	455
Study	35.7	86.3	13.7	88.8	3.6	7.5	100.0	699
Marriage	14.2	61.6	38.4	93.6	6.0	0.4	100.0	2,719
Family reasons	34.2	79.2	20.8	79.3	17.7	3.0	100.0	1,095
Other	(47.1)	(82.4)	(17.6)	(85.3)	(2.9)	(11.8)	100.0	34
Residence								
Urban	25.9	76.3	23.7	77.2	11.0	11.9	100.0	508
Rural	23.5	71.1	28.9	87.5	8.0	4.4	100.0	4,494
Ecological zone								
Mountain	31.1	72.5	27.5	91.3	4.4	4.3	100.0	357
Hill	21.5	70.2	29.8	91.2	4.0	4.7	100.0	2,246
Terai	24.7	72.8	27.2	81.2	13.0	5.8	100.0	2,399
Development region								
Eastern	23.5	71.4	28.6	85.2	8.6	6.1	100.0	1,310
Central	27.4	74.1	25.9	87.2	6.0	6.8	100.0	1,549
Western	17.6	68.0	32.0	88.7	6.1	5.0	100.0	1,247
Mid-western	25.9	70.5	29.5	88.2	10.0	1.8	100.0	473
Far-western	27.1	74.7	25.3	78.7	20.4	1.0	100.0	423
Subregion								
Eastern mountain	27.2	70.0	30.0	98.4	0.0	1.6	100.0	102
Central mountain	32.5	73.1	26.9	86.9	3.7	9.4	100.0	148
Western mountain	33.0	74.2	25.8	90.4	9.6	0.0	100.0	107
Eastern hill	20.4	71.3	28.7	92.9	2.6	4.2	100.0	476
Central hill	28.6	74.9	25.1	89.0	2.3	8.7	100.0	557
Western hill	15.9	67.4	32.6	92.8	2.7	4.3	100.0	857
Mid-western hill	25.3	69.3	30.7	91.6	8.4	0.0	100.0	222
Far-western hill	25.5	65.8	34.2	83.0	16.8	0.2	100.0	133
Eastern terai	24.9	71.7	28.3	78.3	13.8	8.0	100.0	732
Central terai	25.6	73.8	26.2	86.0	9.0	5.0	100.0	844
Western terai	21.4	69.3	30.7	79.8	13.7	6.6	100.0	390
Mid-western terai	23.9	70.7	29.3	83.9	11.6	4.5	100.0	193
Far-western terai	27.1	79.9	20.1	73.6	24.8	1.6	100.0	241
Wealth quintile								
Lowest	22.9	70.9	29.1	87.6	10.3	2.1	100.0	851
Second	24.1	71.7	28.3	88.2	8.8	2.7	100.0	1,126
Middle	22.2	69.0	31.0	89.6	6.7	3.7	100.0	1,043
Fourth	26.0	73.7	26.3	87.3	6.5	6.2	100.0	1,022
Highest	23.4	72.6	27.4	78.7	9.8	11.5	100.0	960
Total	23.7	71.6	28.4	86.4	8.3	5.2	100.0	5,002

Note: Total includes five women with missing information on destination not shown separately. Figures in parentheses are based on 25 40 unweighted seese

25-49 unweighted cases. <sup>1</sup> Includes those who migrated since less than a year prior to the survey.

## 2.5 HOUSEHOLD COMPOSITION

Information on household composition is critical for understanding family size, household headship, and orphanhood and for implementing meaningful population-based policies and programs. Household composition is also a determinant of better health status and well-being.

Table 2.10 presents information on household composition. The majority (72 percent) of households are headed by men, although the proportion of female-headed households has risen from 23 percent in 2006 to 28 percent in 2011, with the rise more marked in rural than urban areas. This could be attributed in part to the sizeable out-migration of the male population from rural areas. The average household size is 4.4 persons, as compared with 4.9 in 2006; household sizes are larger in rural (4.5) than urban (4.1) areas. This decrease in overall household size is consistent with findings from the 2011 census (Central Bureau of Statistics, 2011a).

The 2011 NDHS also collected information on the presence in households of foster children and orphans. Foster children are children under age 18 living in households with neither their mother nor their father present; orphans are

#### Table 2.10 Household composition

Percent distribution of households by sex of head of household and by household size, mean size of household, and percentage of households with orphans and foster children under age 18 years, according to residence, Nepal 2011

	Resi	dence	
Characteristic	Urban	Rural	Total
Household headship Male Female	76.2 23.8	71.0 29.0	71.8 28.2
Total	100.0	100.0	100.0
Number of usual members			
0 1 2 3 4 5 6 7 8 9+	$\begin{array}{c} 0.1 \\ 7.0 \\ 13.2 \\ 20.9 \\ 24.1 \\ 14.4 \\ 9.6 \\ 5.0 \\ 2.5 \\ 3.2 \end{array}$	0.0 4.5 13.6 20.3 16.9 12.6 7.1 3.9 4.5	0.0 4.9 13.6 17.2 20.8 16.5 12.2 6.8 3.7 4.3
Total Mean size of households	100.0 4.1	100.0 4.5	100.0 4.4
Percentage of households with orphans and foster children under age 18 Foster children <sup>1</sup> Double orphans Single orphans <sup>2</sup> Foster and/or orphan children	13.7 0.4 4.7 16.4	10.8 0.4 5.6 14.3	11.2 0.4 5.5 14.6
Number of households	1,546	9,280	10,826

Note: Table is based on de jure household members (i.e., usual residents).

Foster children are those under age 18 living in households with neither

their mother nor their father present. <sup>2</sup> Includes children with one dead parent and an unknown survival status

of the other parent

children with one (single orphans) or both parents (double orphans) dead. Foster children and orphans are of concern because they may be at increased risk of neglect or exploitation with their mothers or fathers not present to assist them. There is little difference in the distribution of orphans by rural and urban areas. Eleven percent of households have foster children, and more urban than rural households have foster children (14 percent and 11 percent, respectively). Single orphans are present in 6 percent of households, whereas double orphans are present in less than 1 percent of households.

## 2.6 BIRTH REGISTRATION

Although Nepal has a legal and administrative structure stipulating official registration of births according to standard procedures, few births are registered officially. The practice of formally registering births is not widely adhered to in the country, even though the registration system was implemented 30 years ago and enforced with the Birth, Death and Other Personal Events (Registration) Act of 1976 (Nepal Law Commission, 2006). Table 2.11 presents the percentage of the de jure population under five years whose births are registered with the civil authorities, according to background characteristics. Birth registration information was solicited for children age 0-4. More than two in five (42 percent) children have their births registered. Thirty-eight percent of children under age five have a birth certificate. Although the Three-Year Development Plan (2010-2013) aims at registering the births of 90 percent of children under age five by 2013, this target is far from being met. The reason is a weak birth registration system coupled with the difficulties encountered in registering births with lack of staff in local registration offices (NPC, 2011).

#### Table 2.11 Birth registration of children under age five

Percentage of de jure children under five years of age whose births are registered with the civil authorities, according to background characteristics, Nepal 2011

	Children	whose births are re	gistered	
Background characteristic	Percentage who had a birth certificate	Percentage who did not have a birth certificate	Percentage registered	Number of children
Age				
<2	26.2	2.4	28.6	2,023
2-4	45.0	5.8	50.8	3,247
Sex				
Male	38.8	5.2	44.0	2,716
Female	36.7	3.7	40.4	2,554
Residence				
Urban	38.1	6.1	44.2	498
Rural	37.7	4.3	42.1	4,772
Ecological zone				
Mountain	40.9	5.0	45.9	412
Hill	32.3	4.8	37.1	2,083
Terai	41.4	4.2	45.6	2,775
Development region				
Eastern	44.5	6.1	50.7	1,238
Central	34.3	3.7	38.0	1,663
Western	35.1	4.4	39.5	992
Mid-western	41.4	3.8	45.2	783
Far-western	33.1	4.3	37.3	593
Subregion				
Eastern mountain	29.3	3.9	33.2	97
Central mountain	33.4	6.2	39.6	98
Western mountain	49.4	5.0	54.4	217
Eastern hill	37.6	5.7	43.4	405
Central hill	31.7	5.0	36.7	471
Western hill	33.3	4.2	37.5	592
Mid-western hill	27.2	3.6	30.7	372
Far-western hill	29.9	5.9	35.8	243
Eastern terai	50.4	6.6	57.0	736
Central terai	35.5	3.0	38.5	1,095
Western terai	37.7	4.7	42.4	400
Mid-western terai	45.4	4.3	49.8	295
Far-western terai	42.4	1.5	43.9	249
Wealth quintile				
Lowest	31.2	4.5	35.6	1,360
Second	37.8	4.2	41.9	1,163
Middle	39.4	3.7	43.1	1,111
Fourth	38.3	5.2	43.5	883
Highest	46.7	5.4	52.1	753
Total	37.8	4.5	42.3	5,269

Although the vital registration system of the government requires that a newborn be registered within 35 days of birth with the respective municipality or village development committee, Table 2.11 indicates that children under 2 are much less likely to be registered than children age 2-4 (29 percent and 51 percent, respectively). The registration of older children is primarily driven by the practice of asking parents to produce a child's birth certificate for school admission, although it is not legally required.

Table 2.11 shows that birth registration is higher among male (44 percent) than female (40 percent) children, higher in urban (44 percent) than rural (42 percent) areas, and higher in the mountain and terai (46 percent each) than in the hill zone (37 percent). The Eastern development region has a higher proportion of children with their births registered (51 percent) than the Far-western region (37 percent). Among the subregions, 57 percent of children from the Eastern terai and 54 percent from the Western mountain subregion are registered. Less than half of the children in the other subregions are registered. Children from the highest wealth quintile are more likely to have their births registered (52 percent) than children in the lowest quintile (36 percent). However, the lowest wealth quintile has seen an improvement since 2006, when only 22 percent of children from that quintile were registered.

## 2.7 CHILDREN'S LIVING ARRANGEMENTS, ORPHANHOOD, AND SCHOOL ATTENDANCE

The 2011 NDHS collected information on living arrangements of children and orphanhood. Living arrangements should be monitored together with the proportion of foster and orphan children because of their

significant effects on the comprehensive development of children. Table 2.12 shows the percent distribution of children under age 18 by living arrangements and survivorship of parents. The proportion of children in Nepal who are orphans and/or foster children is high and is a reflection of the political turmoil in the country over the past decade and the prevailing poverty in various parts of the country. About 61 percent of children less than age 15 and 60 percent of children less than age 18 live with both of their parents. Similarly, 4 percent of children less than age 18 are living away from their parents, even if both are alive. In the case of 4 percent of children less than age 15 and 5 percent of children less than age 18, one or both parents are dead.

#### Table 2.12 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Nepal 2011

			th mother vith father		n father but mother		Not livi	ng with eithe	r parent					
Background characteristic	Living with both parents	Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing informa- tion on father/ mother	Total	Percentage not living with a biological parent	Percentage with one or both parents dead <sup>1</sup>	Number o children
Age														
0-4	62.6	34.3	0.7	0.3	0.2	1.6	0.1	0.1	0.0	0.1	100.0	1.8	1.2	5,269
<2	65.2	34.0	0.5	0.0	0.0	0.1	0.2	0.0	0.0	0.0	100.0	0.3	0.7	2,023
2-4	60.9	34.4	0.9	0.4	0.3	2.5	0.1	0.1	0.0	0.1	100.0	2.8	1.5	3,247
5-9 10-14	59.4 60.5	30.8 23.6	1.8 3.9	1.6 2.0	0.6 1.7	4.7 6.5	0.5 0.8	0.4 0.6	0.2 0.4	0.1 0.1	100.0 100.0	5.7 8.3	3.4 7.3	5,930 6,488
15-17	58.0	23.6 15.9	3.9 5.0	2.0 1.4	1.7	6.5 15.5	0.8	0.6 1.4	0.4	0.1	100.0	18.2	7.3 9.1	6,468 3,152
Sex														- , -
Male	60.5	28.1	2.8	1.4	1.0	5.1	0.5	0.4	0.2	0.1	100.0	6.2	4.9	10,539
Female	60.1	26.3	2.6	1.4	0.9	7.2	0.6	0.6	0.3	0.1	100.0	8.6	5.0	10,300
Residence														
Urban	64.2	18.9	2.3	1.3	0.9	10.2	0.7	0.9	0.3	0.3	100.0	12.1	5.1	2,308
Rural	59.8	28.2	2.7	1.4	1.0	5.6	0.5	0.5	0.2	0.1	100.0	6.8	4.9	18,531
Ecological zone														
Mountain	65.7	22.1	2.9	1.3	1.0	5.4	0.6	0.5	0.4	0.0	100.0	6.9	5.5	1,565
Hill	59.7	27.9	2.9	1.1	1.0	6.1	0.5	0.5	0.3	0.1	100.0	7.3	5.1	8,337
Terai	60.0	27.3	2.4	1.6	0.9	6.2	0.6	0.6	0.2	0.1	100.0	7.6	4.7	10,938
Development region	58.9	26.4	0.5	1.7	4.0	7.0	0.5	0.7		0.0	400.0		5.4	4 000
Eastern Central	58.9 64.8	26.4 23.9	2.5 1.8	1.7	1.2 1.0	7.9 5.7	0.5 0.7	0.7	0.2 0.2	0.0	100.0 100.0	9.3 7.0	5.1 4.1	4,900 6,704
Western	54.2	34.6	2.9	1.4	0.5	5.2	0.4	0.4	0.2	0.1	100.0	6.4	4.6	4,121
Mid-western	63.7	23.5	3.8	1.1	1.2	5.5	0.5	0.6	0.2	0.0	100.0	6.7	6.2	2,822
Far-western	57.3	29.8	3.7	0.9	0.9	6.0	0.5	0.4	0.5	0.0	100.0	7.4	6.0	2,292
Subregion														
Eastern mountain	65.3	22.4	1.4	2.3	0.6	6.4	1.0	0.4	0.2	0.0	100.0	8.0	3.6	412
Central mountain	57.9	29.6	2.1	1.4	0.6	7.4	0.4	0.2	0.3	0.0	100.0	8.4	3.6	425
Western mountain	70.5	17.6	4.2	0.7	1.6	3.6	0.6	0.7	0.6	0.0	100.0	5.5	7.6	727
Eastern hill	62.4	23.3	3.1	1.6	1.1	7.2	0.6	0.5	0.1	0.1	100.0	8.5	5.4	1,625
Central hill Western hill	69.2 52.0	17.8 37.0	1.1 3.5	1.2 0.8	1.3 0.5	8.1 4.9	0.4 0.4	0.5 0.4	0.3 0.3	0.1 0.1	100.0 100.0	9.3 6.1	3.6 5.2	2,120 2,391
Mid-western hill	52.0	31.0	3.0	0.8 1.1	1.1	4.9 5.5	0.4	0.4	0.3	0.1	100.0	6.7	5.3	1,336
Far-western hill	56.8	31.7	5.2	0.4	1.1	3.4	0.5	0.3	0.6	0.1	100.0	4.7	7.7	865
Eastern terai	55.9	28.7	2.4	1.6	1.4	8.5	0.4	0.9	0.2	0.0	100.0	9.9	5.2	2,863
Central terai	63.3	26.4	2.1	1.5	0.9	4.3	0.9	0.4	0.1	0.2	100.0	5.7	4.4	4,160
Western terai	57.1	31.3	2.1	2.2	0.5	5.7	0.4	0.6	0.2	0.0	100.0	6.8	3.8	1,730
Mid-western terai	66.4	19.4	4.6	1.4	0.9	6.0	0.4	0.6	0.3	0.0	100.0	7.2	6.8	1,109
Far-western terai	56.4	29.1	2.4	1.3	0.7	8.9	0.5	0.3	0.3	0.0	100.0	10.0	4.2	1,076
Wealth quintile														
Lowest	64.7	24.7	3.4	0.8	1.5	3.6	0.6	0.4	0.3	0.0	100.0	4.8	6.2	5,034
Second	60.0	28.9	3.2	1.1	1.1	4.6	0.3	0.5	0.2	0.0	100.0	5.6	5.4	4,429
Middle Fourth	59.0 54.9	29.5 30.8	2.7 1.8	1.0 2.6	0.8 0.7	5.4 7.8	0.9 0.3	0.3 0.8	0.2 0.1	0.1 0.1	100.0 100.0	6.8 9.1	5.0 3.7	4,149 3,819
Highest	54.9 62.0	21.8	1.6	2.0 1.4	0.7	10.8	0.3	0.8	0.1	0.1	100.0	9.1 12.5	3.7	3,408
Total <15	60.7	29.2	2.2	1.4	0.9	4.4	0.5	0.4	0.2	0.1	100.0	5.5	4.2	17,687
Fotal <18	60.3	27.2	2.7	1.4	1.0	6.1	0.5	0.5	0.2	0.1	100.0	7.4	4.9	20,839

Note: Table is based on de jure members, i.e., usual residents. <sup>1</sup> Includes children with father dead, mother dead, both dead and one parent dead but missing information on survival status of the other parent.

A high proportion of children age 15-17 (18 percent) are not living with either parent, even when both parents are alive. This may be due to children moving to a relative's house to pursue further education or for purposes of seeking work.

Table 2.12 shows that the percentage of children not living with their parents increases with age. Rural children are more likely to live with either parent than urban children. The highest proportion of children not living with either parent is observed in the Eastern development region (9 percent), while the lowest proportion is found in the Western development region (6 percent).

## 2.8 EDUCATION OF HOUSEHOLD POPULATION

Studies have shown that education is one of the major socioeconomic factors that influence a person's behavior and attitude. In general, the higher the level of education of a woman, the more knowledgeable she is about the use of health facilities, family planning methods, and the health of her children. Inspired by the collective commitment expressed in the Dakar Framework for Action 2000, Nepal has already adopted the "Education for All" (EFA) strategy. To achieve this, a National Plan of Action (NPA, EFA 2001-2015) has been in place since 2001 (Department of Education, 2004). In order to meet MDG targets, Nepal is committed to ensuring that by 2015 all children, and in particular girls, children in difficult situations, and children from ethnic minority groups, have access to a complete, free, compulsory, and good-quality primary education (UNICEF, 2006).

To cope with the demand for education, the government of Nepal has opened investment in the education sector to private parties. Education is divided into two broad categories, primary and secondary (Department of Education, 2004). In addition, private parties have invested in opening up non-graded-level schools (e.g., nursery, lower kindergarten, and upper kindergarten), known as pre-primary schools. To gauge the spread of such schools in Nepal, the 2011 NDHS included questions on pre-primary school attendance. Secondary-level schooling includes lower secondary and upper secondary schools, where students can receive an education up to grade 10. More recently, the government has encouraged existing high schools to add two additional years of school (10+2) by affiliating with the Higher Secondary Education Council (on the recommendation of the District Health Education Office and the Department of Education). The goal of the Three Year Plan (2010-2013) of the government of Nepal is to provide free, essential, and quality basic-level education (grade 1 to 8) and expand equitable and participative access to quality education to the secondary level (grade 9 to 12) (NPC, 2010a). In order to promote job-oriented education, skill development schools with a vocational and technical focus have increased over the years in various parts of the country. The interim constitution of Nepal (2007) explicitly stipulated free education up to the secondary level in the public sector and provisioned for reservation and other promotional arrangements for children and women.

## 2.8.1 Educational Attainment of Household Population

Tables 2.13.1 and 2.13.2 show the percent distribution of the de facto female and male household population age 6 and above by level of education and background characteristics.

Table 2.13.1 shows that 41 percent of women have never been to school, 23 percent have an incomplete primary education, 6 percent have completed primary school but not continued on to the next level of schooling, 25 percent have some secondary education or have completed secondary school and have not continued on, and about 5 percent have more than a secondary school education. While 7 percent of girls age 10-14 had no education, 12 percent of girls age 6-9 had no education indicating that school enrollment is quite late among girls. A relatively low proportion of girls in the 6-9 age group have attended some primary education (88 percent), particularly with respect to the MDG target of 100 percent by 2015. The proportion of women with no education increases with age, indicating that older women are less likely to be educated than younger women.

Women in rural areas are far behind their urban counterparts with 44 percent having no education and median years of schooling is less than one, compared to urban women with 27 percent having no education and a median years of schooling completed of nearly five years. Forty-eight percent of women in the mountain zone have no education compared with 43 percent in the terai and 39 percent in the hill. Women in the

#### Table 2.13.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Nepal 2011

Background characteristic	No education <sup>1</sup>	Some primary <sup>2</sup>	Completed primary <sup>3</sup>	Some secondary	Completed secondary <sup>4</sup>	More than secondary	Total	Number	Median years completed
Age									
6-9	11.7	87.6	0.7	0.0	0.0	0.0	100.0	2,311	0.1
10-14		47.6	17.4	28.4	0.0	0.0	100.0	3,181	3.7
	6.6								
15-19	12.5	9.4	6.6	49.9	16.5	5.0	100.0	2,775	7.2
20-24	23.1	11.7	7.9	23.3	16.6	17.4	100.0	2,431	6.5
25-29	35.9	15.1	6.9	21.7	10.4	10.0	100.0	2,126	3.8
30-34	44.8	12.8	7.1	20.0	8.8	6.4	100.0	1,744	1.9
35-39	60.9	10.9	4.4	14.2	4.4	5.3	100.0	1,597	0.0
40-44	70.4	11.4	3.3	8.2	3.6	3.0	100.0	1,309	0.0
45-49	78.2	9.3	2.7	5.3	2.3	2.2	100.0	979	0.0
50-54	84.6	6.5	2.5	3.8	1.3	1.3	100.0	1,178	0.0
55-59	90.0	4.1	0.9	3.5	0.7	0.8	100.0	811	0.0
60-64	90.0 95.4	1.7		3.5 1.4	0.7	0.8	100.0	711	0.0
			0.4						
65+	96.8	1.7	0.2	1.0	0.1	0.2	100.0	1,376	0.0
Residence									
Urban	26.5	19.9	5.5	22.2	11.9	13.9	100.0	2,947	4.6
Rural	43.7	23.5	6.3	17.8	5.4	3.3	100.0	19,582	0.4
Ecological zone									
Mountain	47.8	25.5	5.7	15.8	3.7	1.5	100.0	1,539	0.0
Hill	38.5	22.5	7.0	19.7	6.2	6.0	100.0	9,143	1.8
Terai	42.8	23.0	5.6	17.7	6.6	4.1	100.0	11,847	0.5
Development region									
Eastern	35.1	25.7	5.7	21.1	8.2	4.1	100.0	5,441	2.1
Central	46.3	20.9	5.3	15.4	5.5	6.6	100.0	7,430	0.0
Western	37.9	20.9	8.2	22.0	6.7	4.3	100.0	4,752	2.2
Mid-western	43.2	25.9	6.1	17.0	4.9	2.9	100.0	2,633	0.5
Far-western	46.0	24.5	6.3	15.9	4.4	2.8	100.0	2,274	0.0
Subregion									
Eastern mountain	36.0	27.9	6.0	22.5	5.5	2.1	100.0	424	1.7
Central mountain	49.4	23.0	5.9	16.5	3.6	1.5	100.0	506	0.0
Western mountain	54.6	25.9	5.3	10.5	2.5	1.1	100.0	609	0.0
Eastern hill	37.4	25.0	7.4	21.7	5.9	2.4	100.0	1,759	1.8
Central hill	33.7	20.8	5.8	18.4	7.9	13.4	100.0	2,619	3.0
Western hill	39.4	20.9	8.1	21.8	6.3	3.4	100.0	2,806	2.1
Mid-western hill	41.7	20.3	6.9	17.9	4.8	3.9	100.0	1,172	0.7
Far-western hill	49.2	25.2	6.8	14.7	2.3	1.6	100.0	787	0.0
Eastern terai	33.7	25.8	4.8	20.6	9.8	5.3	100.0	3,257	2.3
Central terai	53.6	20.7	4.9	13.5	4.2	3.1	100.0	4,305	0.0
Western terai	35.6	20.8	8.4	22.2	7.3	5.5	100.0	1,945	2.5
Mid-western terai	41.7	26.8	5.4	18.0	5.5	2.6	100.0	1,159	1.1
Far-western terai	41.6	24.0	6.3	17.9	6.3	3.9	100.0	1,180	0.6
Wealth guintile									
Lowest	54.7	29.1	5.7	9.4	0.7	0.3	100.0	4.316	0.0
Second	51.7	23.8	6.4	15.2	2.4	0.4	100.0	4,488	0.0
Middle	45.9	22.7	5.7	19.3	4.7	1.6	100.0	4,486	0.0
									2.6
Fourth	35.3	21.9	6.6	22.3	9.4	4.3	100.0	4,606	
Highest	20.8	17.8	6.4	25.1	13.4	16.4	100.0	4,633	6.1
Total	41.4	23.0	6.2	18.4	6.2	4.7	100.0	22,529	1.0

<sup>1</sup> Includes those who have never attended school and those in Early Childhood Development (ECD) centers

<sup>2</sup> Includes those who have completed 0-4 years of school and those in school-based pre-primary classes <sup>3</sup> Completed grade 5 at the primary level

<sup>4</sup> Completed grade 10 at the secondary level

Central and Far western regions have relatively lower levels of education than women in the other regions. Women in the Western mountain subregion are most likely to have no education (55 percent) while women in the Central hill and Eastern terai regions are least likely (34 percent). Overall the median number of years completed in Nepal is only one year among women.

Wealth exerts a positive influence on educational attainment. Women from the highest wealth quintile are more likely to be educated than others. Seventy-nine percent of women from the highest wealth quintile have attended school, and half have completed at least six years of schooling; only 45 percent of women in the lowest wealth quintile have some educational attainment.

Table 2.13.2 shows the educational attainment of the male household population. Eighty percent of males have attained some level of education. Thirty-nine percent have attained a primary education only, and 33 percent have some secondary education or have completed secondary schooling but did not continue on. Only 9 percent of males have attained more than a secondary-level education. The median number of years of schooling completed is almost 4. Ninety-four percent of males in the highest wealth quintile have attained any level of education, with a median of 8.1 years of schooling, as compared with only 68 percent of males in the lowest wealth quintile, with a median of 1.3 years.

#### Table 2.13.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Nepal 2011

Background characteristic	No education <sup>1</sup>	Some primary <sup>2</sup>	Completed primary <sup>3</sup>	Some secondary	Completed secondary <sup>4</sup>	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	6.1	93.0	0.6	0.1	0.0	0.2	0.0	100.0	2,470	0.1
10-14	2.2	50.6	17.5	29.6	0.0	0.0	0.0	100.0	3,269	3.8
15-19	3.6	9.9	5.8	54.9	20.8	5.0	0.1	100.0	2,217	7.8
20-24	5.4	10.1	6.5	27.2	20.8	29.8	0.1	100.0	1,449	9.0
25-29	12.4	15.3	8.2	30.2	15.1	18.7	0.2	100.0	1,266	7.2
30-34	17.6	14.6	6.9	28.6	14.4	17.7	0.2	100.0	1,167	7.1
35-39	17.3	16.9	7.1	26.8	14.9	17.0	0.2	100.0	1,187	6.7
40-44	26.3	18.1	8.0	20.0	9.8	13.3	0.0	100.0	957	4.7
40-44 45-49	32.5	20.6	6.8	17.6	9.0 11.1	11.1	0.2	100.0	916	3.4
50-54	40.4	20.7	8.2	16.0	6.4	8.2	0.0	100.0	915	2.0
55-59	47.9	19.7	6.8	15.0	5.3	5.2	0.1	100.0	820	0.3
60-64	59.2	16.3	5.8	9.2	4.4	5.0	0.2	100.0	654	0.0
65+	76.5	8.5	2.4	6.5	3.6	2.2	0.4	100.0	1,303	0.0
Residence										
Urban	10.1	24.0	6.1	24.1	14.9	20.5	0.3	100.0	2,726	6.9
Rural	21.2	32.5	7.9	23.7	8.0	6.6	0.1	100.0	15,865	3.5
Ecological zone										
Mountain	22.7	34.2	8.2	24.2	6.2	4.5	0.1	100.0	1,255	3.0
Hill	17.3	30.6	8.2	24.5	9.0	10.3	0.1	100.0	7,477	4.3
Terai	20.9	31.4	7.1	23.2	9.3	7.9	0.1	100.0	9,859	3.6
	20.5	51.4	7.1	23.2	3.5	1.5	0.1	100.0	3,003	5.0
Development region										
Eastern	16.9	31.7	7.6	25.6	10.7	7.4	0.1	100.0	4,451	4.2
Central	22.8	29.3	7.0	20.6	8.9	11.2	0.2	100.0	6,338	3.6
Western	17.1	31.5	8.1	26.4	8.8	8.0	0.2	100.0	3,781	4.2
Mid-western	22.0	32.8	7.9	23.5	7.7	6.1	0.0	100.0	2,224	3.3
Far-western	17.2	34.4	8.5	25.6	7.4	6.9	0.0	100.0	1,796	3.8
Subregion										
Eastern mountain	18.8	36.6	7.4	26.5	6.8	3.9	0.0	100.0	342	3.4
Central mountain	30.2	32.5	8.2	20.5	6.1	2.4	0.0	100.0	382	2.2
Western mountain	19.7	33.8	8.7	25.3	5.9	6.5	0.1	100.0	531	3.4
Eastern hill	20.0	33.5	8.8	25.9	7.7	4.1	0.1	100.0	1,386	3.5
Central hill	14.5	25.6	7.3	21.9	11.1	19.2	0.3	100.0	2,400	5.5
Western hill	18.3	30.1	8.5	26.5	8.8	7.8	0.0	100.0	2,131	4.2
Mid-western hill	20.1	35.5	8.2	21.8	8.1	6.3	0.0	100.0	943	3.3
Far-western hill	14.5	36.9	9.2	28.7	6.4	4.4	0.0	100.0	617	3.9
Eastern terai	15.1	30.3	7.0	25.3	12.7	9.6	0.0	100.0	2,723	4.7
Central terai	27.6	30.2 31.5	6.7	25.3 19.7	7.6	9.6 6.7	0.1	100.0	2,723	4.7 2.5
Western terai	27.6 15.7	31.5	6.7 7.6	26.2	7.6 8.8	6.7 8.2	0.1	100.0	3,556	2.5 4.1
Mid-western terai	24.3	33.3 30.3	7.6	26.2 24.4	8.8 7.8	8.2 6.1	0.3	100.0	999	4.1 3.4
Far-western terai	24.3 18.5	30.3	8.2	24.4	7.0 8.5	8.3	0.0	100.0	999 930	3.4 3.8
	10.0	52.0	0.2	20.1	0.0	0.0	0.1	100.0	330	5.0
Wealth quintile		10.0	7.0	40.0	1.0	1.0		100.0	0.005	4.0
Lowest	32.3	40.8	7.8	16.2	1.9	1.0	0.0	100.0	3,365	1.3
Second	28.0	36.5	9.5	20.6	3.5	1.8	0.1	100.0	3,570	2.2
Middle	21.3	32.4	8.1	26.5	7.9	3.8	0.1	100.0	3,693	3.5
Fourth	13.9	27.3	8.0	28.9	13.1	8.6	0.1	100.0	3,891	5.1
Highest	5.7	21.4	5.1	25.4	16.8	25.3	0.3	100.0	4,071	8.1
Total	19.6	31.3	7.6	23.8	9.0	8.6	0.1	100.0	18,591	3.9

<sup>1</sup> Includes those who have never attended school and those in Early Childhood Development (ECD) centers

<sup>2</sup> Includes those who have completed 0-4 years of school and those in school-based pre-primary classes

<sup>3</sup> Completed grade 5 at the primary level
<sup>4</sup> Completed grade 10 at the secondary level

Survey results show that about one in five men and about two in five women have never attended school. Additionally, twice as many females as males (12 percent versus 6 percent) age 6-9 have never been to school (in 2006, the corresponding proportions were 16 percent and 10 percent). The percentage of men and women with no education has declined since 2006, with improvements observed across all education categories. This decline is the result of various interventions by the government to enhance the overall quality of education and improve school enrollment (NPC, 2010a).

## 2.8.2 School Attendance Ratios

The net attendance ratio (NAR) indicates participation in primary schooling for the population age 6-10 and secondary schooling for the population age 11-15. The gross attendance ratio (GAR) measures participation at each level of schooling among those of any age from 5 to 24 years. The GAR is almost always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level. An NAR of 100 percent would indicate that all of those in the official age range for that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling.

Tables 2.14.1 and 2.14.2 provide data on net attendance ratios and gross attendance ratios by sex and level of schooling. There has been a rise in the NAR at the primary level from 87 percent in 2006 to 89 percent in 2011, while at the secondary level it has increased from 47 percent to 59 percent over the same period. The rural primary school NAR has increased from 86 percent in 2006 to 89 percent in 2011, with a rise from 91 percent to 94 percent in urban areas over the same period. Among the subregions, the Central terai has the lowest NAR and GAR at the primary as well as at the secondary level.

#### Table 2.14.1 School attendance ratios: Primary school

Net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population at the primary level by sex and level of schooling, and the Gender Parity Index (GPI), according to background characteristics, Nepal 2011

		Net attenda	ance ratio <sup>1</sup>			Gross atten	dance ratio <sup>2</sup>	2
Background characteristic	Male	Female	Total	Gender Parity Index <sup>3</sup>	Male	Female	Total	Gender Parity Index <sup>3</sup>
Residence								
Urban	94.8	92.7	93.8	0.98	131.4	123.9	127.8	0.94
Rural	91.9	85.4	88.7	0.93	141.3	130.7	136.1	0.93
Ecological zone								
Mountain	93.5	93.0	93.2	0.99	135.3	132.7	134.0	0.98
Hill	92.1	89.2	90.7	0.97	135.8	133.2	134.5	0.98
Terai	92.1	83.0	87.7	0.90	143.9	127.0	135.8	0.88
Development region								
Eastern	94.0	89.1	91.6	0.95	142.0	129.9	135.9	0.91
Central	89.8	78.4	84.1	0.87	138.1	114.7	126.4	0.83
Western	91.5	90.1	90.9	0.98	140.7	142.9	141.7	1.02
Mid-western	93.4	91.1	92.3	0.98	141.3	138.6	140.0	0.98
Far-western	95.0	92.2	93.7	0.97	139.6	145.1	142.3	1.04
Subregion								
Eastern mountain	94.8	93.1	94.0	0.98	139.9	131.9	135.9	0.94
Central mountain	89.6	94.1	92.0	1.05	127.4	131.4	129.5	1.03
Western mountain	94.8	92.1	93.5	0.97	136.7	134.0	135.4	0.98
Eastern hill	92.6	88.6	90.5	0.96	136.7	127.3	131.7	0.93
Central hill	94.1	88.4	91.2	0.94	135.4	120.7	128.0	0.89
Western hill	89.1	91.2	90.1	1.02	132.3	145.6	138.6	1.10
Mid-western hill	92.7	87.3	90.2	0.94	139.3	138.4	138.9	0.99
Far-western hill	93.2	90.7	92.0	0.97	138.8	140.8	139.7	1.01
Eastern terai	94.6	88.8	91.8	0.94	145.1	131.2	138.4	0.90
Central terai	87.6	71.3	79.5	0.81	140.4	109.6	125.2	0.78
Western terai	94.3	88.4	91.8	0.94	150.5	139.1	145.7	0.92
Mid-western terai	94.2	94.4	94.3	1.00	148.5	143.5	145.9	0.97
Far-western terai	96.1	93.7	94.9	0.98	138.7	148.3	143.3	1.07
Wealth quintile								
Lowest	86.1	81.8	83.9	0.95	136.6	127.1	131.7	0.93
Second	90.9	81.8	86.5	0.90	139.4	130.3	135.0	0.93
Middle	93.3	88.2	91.0	0.95	144.7	139.0	142.1	0.96
Fourth	95.9	89.3	92.6	0.93	148.4	129.4	139.0	0.87
Highest	97.5	94.3	96.0	0.97	132.7	125.1	129.1	0.94
Total	92.2	86.3	89.3	0.94	140.1	129.9	135.1	0.93

<sup>1</sup> The NAR for primary school is the percentage of the primary school age (6-10 years) population that is attending primary school. By definition, the NAR cannot exceed 100 percent.

The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary school age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100.0. 3 T

The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males.

Over the past five years, the rise in the NAR and GAR at the secondary level for females has been noticeable, with the NAR increasing from 43 percent in 2006 to 58 percent in 2011 and the GAR increasing from 67 percent in 2006 to 87 percent in 2011. In addition to extensive educational programs, these increases can be credited to government interventions providing specific scholarship initiatives for girls, members of the Dalit ethnic group, children with various disabilities, children of martyrs, and other groups of needy children. The 2006 Scholarship Regulation provisioned for the inclusion in programs of the poor, women, and conflictaffected and disabled populations (Department of Education, 2006). "Welcome to school" programs and the "School Tiffin program" have been maintained over the past five years.

#### Table 2.14.2 School attendance ratios: Secondary school

Net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population at the secondary level by sex and level of schooling, and the Gender Parity Index (GPI), according to background characteristics, Nepal 2011

		Net attenda	ance ratio <sup>1</sup>			Gross atten	dance ratio <sup>2</sup>	2
Background characteristic	Male	Female	Total	Gender Parity Index <sup>3</sup>	Male	Female	Total	Gender Parity Index <sup>3</sup>
Residence								
Urban	70.5	70.9	70.7	1.00	95.7	99.8	97.6	1.04
Rural	57.7	56.2	56.9	0.97	84.3	85.4	84.8	1.01
Ecological zone								
Mountain	67.3	60.9	64.1	0.91	104.8	94.4	99.5	0.90
Hill	65.9	66.0	66.0	1.00	92.1	97.7	94.9	1.06
Terai	52.9	50.8	51.8	0.96	78.0	77.4	77.7	0.99
Development region								
Eastern	60.8	60.1	60.5	0.99	87.0	92.6	89.8	1.06
Central	54.4	51.7	53.1	0.95	75.0	76.3	75.6	1.02
Western	62.3	64.4	63.4	1.03	89.5	93.6	91.5	1.05
Mid-western	59.3	60.5	59.9	1.02	94.2	90.6	92.4	0.96
Far-western	63.5	54.5	59.1	0.86	96.6	89.7	93.2	0.93
Subregion								
Eastern mountain	57.1	63.3	60.3	1.11	97.1	101.9	99.6	1.05
Central mountain	71.2	71.2	71.2	1.00	103.7	109.4	106.8	1.05
Western mountain	70.6	50.9	61.4	0.72	109.6	76.9	94.3	0.70
Eastern hill	64.4	68.3	66.3	1.06	93.9	117.7	105.4	1.25
Central hill	68.8	66.9	67.9	0.97	84.7	92.0	88.2	1.09
Western hill	67.0	67.6	67.3	1.01	95.6	97.4	96.6	1.02
Mid-western hill	58.7	64.2	61.7	1.09	90.7	90.4	90.5	1.00
Far-western hill	66.8	57.8	62.2	0.87	100.3	88.5	94.4	0.88
Eastern terai	59.2	55.1	57.2	0.93	81.7	77.4	79.6	0.95
Central terai	43.8	41.4	42.6	0.94	65.9	64.0	64.9	0.97
Western terai	56.2	59.7	57.9	1.06	81.5	88.1	84.7	1.08
Mid-western terai	56.0	56.9	56.5	1.02	88.5	90.9	89.6	1.03
Far-western terai	59.3	54.6	57.0	0.92	94.5	98.6	96.5	1.04
Wealth guintile								
Lowest	46.0	41.4	43.6	0.90	70.7	62.8	66.5	0.89
Second	52.3	47.5	49.8	0.91	82.4	78.6	80.4	0.95
Middle	59.3	58.5	58.9	0.99	88.3	91.1	89.7	1.03
Fourth	64.5	68.9	66.5	1.07	90.0	105.6	97.1	1.17
Highest	75.5	78.8	77.1	1.04	97.8	103.7	100.8	1.06
Total	59.2	57.8	58.5	0.98	85.6	86.9	86.3	1.02

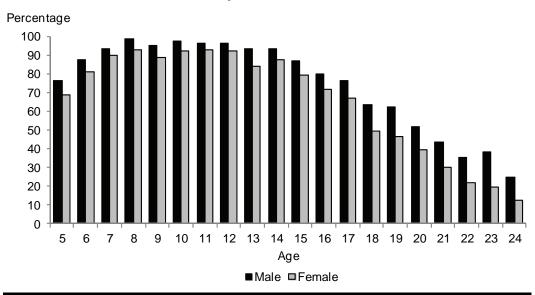
<sup>1</sup> The NAR for secondary school is the percentage of the secondary school age (11-15 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent. <sup>2</sup> The CAR for secondary school is the total number of secondary school students, expressed as a percentage of the official

<sup>2</sup> The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary school age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100.0.

<sup>3</sup> The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Tables 2.14.1 and 2.14.2 also show the Gender Parity Index (GPI), which represents the ratio of the NAR and GAR for females to the NAR and GAR for males. It is a more precise indicator of gender differences in the schooling system. A GPI less than one indicates that a smaller proportion of females than males attend school. The indexes for NAR and GAR at the primary and secondary levels are slightly less than one (0.9), indicating that the gender gap is very narrow. It is worth noting here that the gender gap in attendance has remained unchanged at the primary level but has narrowed over the past few years at the secondary level.

Figure 2.2 shows that females have a lower level of school attendance than males. Attendance is high up to age 8 for both males and females and then drops off gradually after age 14.



# Figure 2.2 Age-specific Attendance Rates of the defacto Population 5 to 24 Years

## 2.8.3 Early Childhood Development Centers

In order to promote pre-primary education for children under five, the government has introduced Early Childhood Development (ECD) centers under Nepal's Preliminary Child Education regulations. Data collected nationally show that a total of 26,773 ECD centers and school-based pre-primary classes had been established up to the 2010 school year (NPC, 2010a). These school-based centers are mostly managed by the government, while other community-based ECD centers are mostly supported by nongovernmental organizations (NGOs). The 2011 NDHS collected information on the percentage of children age 3-4 enrolled in these centers.

Table 2.15 shows that nearly one-third of children age 3-4 are enrolled in school-based pre-primary classes or in ECD centers. School-based pre-primary classes are relatively more widespread; 23 percent of all children age 3-4 are enrolled in these classes, with only 7 percent of children enrolled in ECD centers. Overall, enrollment in pre-primary classes, including ECD centers, has increased from 23 percent in 2006 to 30 percent in 2011.

No significant differences in enrollment by gender were observed. Young children in urban areas are more likely to be enrolled in school-based pre-primary classes (43 percent) than are young children in rural areas (21 percent), while the proportion of children enrolled in ECD centers is slightly higher in rural than in urban areas (7 percent versus 5 percent). But it is interesting that enrollment of children from urban areas in school-based pre-primary classes has declined from 50 percent to 43 percent between 2006 and 2011, while enrollment of children in rural areas has increased from 13 percent to 21 percent during the same period. Children in the hill zone are more likely to be enrolled in pre-primary classes or ECD centers (32 percent) than those in the other ecological zones, with most children from the Western region (45 percent) and Western terai (46 percent) enrolled in early education. Children in the highest wealth quintile (61 percent) are significantly more likely to have access to early education than those in other households, especially those in the lowest quintile, where only 14 percent are enrolled in early education.

Table 2.15 Children enrolled in school-based pre-primary classes and Early Childhood Development centers

Percentage of de facto children age 3-4 enrolled in school-based pre-primary classes and Early Childhood Development centers according to background characteristics, Nepal 2011

	Percent	age of children a	age 3-4	
		Early		_
Background	School-based	Childhood Development		Number of
characteristic	pre-primary	centers	Total	children
Sex				
Male	23.7	5.6	29.3	1,134
Female	23.0	8.0	31.0	1,048
Residence Urban	42.5	4.6	47.1	211
Rural	21.3	7.0	28.3	1,971
Ecological zone				
Mountain	12.0	17.0	29.0	169
Hill .	22.5	9.4	31.9	860
Terai	25.7	3.3	29.0	1,153
Development region	04.4	4.0	00.4	507
Eastern Central	24.1 19.7	4.0 7.4	28.1 27.2	527 687
Western	37.1	7.8	44.9	393
Mid-western	15.3	8.0	23.3	322
Far-western	20.8	7.5	28.3	253
Subregion				
Eastern mountain	18.7	13.7	32.5	39
Central mountain Western mountain	20.0 4.8	23.7 15.0	43.7 19.8	44 86
Eastern hill	4.0	6.1	20.3	183
Central hill	32.2	12.6	44.8	190
Western hill	35.6	8.7	44.3	228
Mid-western hill	8.4	9.0	17.3	157
Far-western hill	12.0	11.1 1.5	23.1 32.1	102 305
Eastern terai Central terai	30.6 14.5	3.6	32.1 18.1	305 452
Western terai	39.1	6.5	45.6	165
Mid-western terai	27.8	1.7	29.5	118
Far-western terai	35.3	4.0	39.3	112
Wealth quintile				
Lowest	5.3	9.1	14.3	575
Second Middle	15.3 20.6	6.2 7.6	21.5 28.2	489 436
Fourth	20.6 37.8	4.3	28.2 42.1	436 364
Highest	55.7	5.2	60.9	317
Total	23.4	6.8	30.1	2,182

## 2.9 Possession of Mosquito Nets

Since 1954, USAID has promoted malaria control programs through the Insect Borne Disease Control Program. The malaria eradication program, launched in 1958, reverted to a malaria control program in 1978. In 1993, the World Health Organization initiated the Global Malaria Control Strategy to focus on problem areas. Areas with a high incidence of malaria were identified, and 12 priority districts in the forest area, foothills, and inner terai were targeted for focused initiatives under the Roll Back Malaria strategy. Currently, malaria control activities are in place in 65 of the country's 75 districts (MOHP, 2011a). In addition to preparing for a malaria pre-elimination strategy, the MOHP has initiated visceral leishmaniasis (kala-azar) elimination programs.

An important strategy in the control of malaria and kala-azar is prevention through indoor residual spraying and use of long-lasting insecticide-treated bednets (LLINs). This strategy has been implemented through the promotion of personal protection measures, including the use of simple mosquito nets or LLINs. The MOHP has been distributing nets through various channels in affected areas, and it set a target of 80 percent of people in high-risk areas sleeping under LLINs by 2011 (MOHP, 2011a).

The 2011 NDHS collected information on the possession and number of mosquito nets in households. Table 2.16 shows that about 68 percent of households have mosquito nets (78 percent in urban areas and 66 percent in rural areas). Households in the terai (90 percent) are much more likely to possess mosquito nets than households in the hill (49 percent) and mountain (20 percent) zones. This is primarily because the terai is a high-

risk area for malaria transmission. Households in the Eastern region are more likely to possess nets than other households in the other regions. More than 90 percent of households in the Eastern terai, Western terai, and Farwestern terai have mosquito nets. Among households with nets, 24 percent own one net, 55 percent own two or three nets, and 22 percent own at least four nets. Households in the fourth and highest wealth quintiles are more likely to possess mosquito nets (88 percent and 85 percent, respectively) than households in the other wealth quintiles. Households in the lowest wealth quintile are least likely to have nets (26 percent).

Table 2.16 Possession of mosquito nets

Percentage of households with mosquito nets, and among households with mosquito nets, the percent distribution b	у
number of nets in the household, according to background characteristics, Nepal 2011	

Background	Percentage of households	Number of	N	umber of net	ts in househo	old	Number of households
characteristic	with nets	households	1	2-3	4+	Total	with nets
Residence							
Urban	77.9	1.546	23.5	55.7	20.8	100.0	1.205
Rural	66.1	9,280	23.7	54.6	21.7	100.0	6,137
Ecological zone							
Mountain	20.4	761	30.0	50.2	19.8	100.0	156
Hill	48.7	4,563	26.5	54.3	19.2	100.0	2,220
Terai	90.3	5,502	22.2	55.2	22.6	100.0	4,966
Development region							
Eastern	76.2	2,685	19.7	56.0	24.3	100.0	2,045
Central	69.7	3,627	27.6	55.3	17.1	100.0	2,529
Western	68.8	2,304	19.6	53.4	27.0	100.0	1,586
Mid-western	51.2	1,241	29.6	51.8	18.6	100.0	635
Far-western	56.3	969	25.2	55.7	19.1	100.0	546
Subregion							
Eastern mountain	30.0	206	24.1	50.4	25.5	100.0	62
Central mountain	25.6	266	30.1	51.0	19.0	100.0	68
Western mountain	8.9	289	44.0	48.0	8.0	100.0	26
Eastern hill	49.7	847	23.8	54.5	21.7	100.0	421
Central hill	52.2	1,386	29.1	55.4	15.5	100.0	724
Western hill	54.9	1,415	23.8	53.5	22.7	100.0	777
Mid-western hill	37.4	577	33.0	50.7	16.3	100.0	216
Far-western hill	24.3	339	25.8	60.6	13.6	100.0	82
Eastern terai	95.7	1,632	18.4	56.7	24.9	100.0	1,563
Central terai	88.0	1,975	26.9	55.4	17.7	100.0	1,737
Western terai	90.9	889	15.6	53.3	31.1	100.0	808
Mid-western terai	79.3	519	27.3	52.5	20.2	100.0	411
Far-western terai	91.7	487	24.6	55.0	20.4	100.0	446
Wealth quintile							
Lowest	26.1	2,029	45.3	49.9	4.9	100.0	530
Second	58.0	2,168	37.9	54.5	7.5	100.0	1,258
Middle	78.6	2,068	24.2	57.7	18.0	100.0	1,625
Fourth	87.9	2,185	15.8	56.7	27.6	100.0	1,921
Highest	84.5	2,377	16.1	52.2	31.7	100.0	2,008
Total	67.8	10,826	23.7	54.8	21.5	100.0	7,341

## 2.10 PREVALENCE AND CAUSES OF FOOD INSECURITY AND COPING STRATEGIES

Food security refers to the availability of food and one's access to it. A household is considered foodsecure when its occupants do not live in hunger or fear of starvation (Hunt, 2009). In 1996, the World Food Summit defined food security as "the situation when all people at all times have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization of the United Nations, 2002). Common to most definitions of food security are the elements of availability, access (physical and economic), utilization, and stability or sustainability. Food insecurity is rooted in poverty and leads to poor health, low productivity, low income, food shortage, and hunger (Khanal and Dahal, 2010).

The interim constitution (2006-2007) of Nepal recognized food security as a fundamental human right for all citizens, and this is reflected in the Three Year Interim Plan (2010-2013). With respect to MDG 1, Nepal aims to reduce the proportion of the population living below a minimum level of dietary energy consumption to 25 percent by 2015 (NPC, 2010a). In the absence of representative information on levels of household food insecurity, the 2011 NDHS provided a good opportunity to collect baseline data on food insecurity in Nepal.

The series of questions on food insecurity included in the 2011 NDHS was adopted from the Household Food Insecurity Access Scale indicators developed in USAID's Food and Nutrition Technical Assistance (FANTA) project. However, the questions were modified to be specific to Nepal, with seven of the nine generic questions included and the reference period for assessment extended to 12 months from one month to allow for seasonal variations. The food insecurity scale designed from this methodology provides information on a household's "access" to food, one of the three components of food insecurity—*Availability, Access* and *Utilization*.

Although the questions on food insecurity included in the Household Questionnaire were administered to the household head, they reflect food insecurity for the household as a unit. The questions, arranged in order of degree of severity and frequency of occurrence, capture the household's perception of food vulnerability or stress and behavioral responses to food insecurity. Based on responses to these questions, four food insecurity categories were created:

- 1. Food secure households: These households do not experience any food insecurity (access) conditions and rarely worry about such conditions.
- 2. Mildly food insecure households: These households worry about not having enough food sometimes or often, and/or are unable to eat preferred foods, and/or eat a more monotonous diet than desired and/or some foods considered undesirable but do so only rarely. They do not cut back on quantity or experience any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating).
- 3. Moderately food insecure households: These households sacrifice quality more frequently, by eating a monotonous diet or undesirable foods sometimes or often, and/or have rarely or sometimes started to cut back on quantity by reducing the size of meals or number of meals. However, they do not experience any of the three most severe conditions.
- 4. Severely food insecure households: These households have cut back on meal size or number of meals often and/or have experienced any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating), even if only rarely. In other words, any household that has experienced one of these three conditions even once in the last 12 months is considered severely food insecure (Coates et al., 2007).

Table 2.17 shows that 49 percent of households in Nepal are food secure and have access to food year round. Twelve percent of households are mildly food insecure, 23 percent are moderately food insecure, and 16 percent are severely food insecure. Urban households are more food secure (67 percent) than rural households (46 percent). The proportion of food secure households is higher in the terai (52 percent), which includes the country's most fertile land areas, than in the hill (47 percent) and mountain (41 percent) zones. Households in the Eastern development region are most likely to be food secure (56 percent), while households in the Midwestern region tend to be least food secure (32 percent). The latter finding is consistent with the government's recent declaration of the hill districts of the Mid-western region (namely, Humla, Mugu, Kalikot, Rukum, Surkhet, and Jajarkot) as severely food insecure areas (The Himalayan, 2010). The 2011 NDHS indicates that 27 percent of the households in this region are severely food insecure and that 29 percent are moderately food insecure. Overall, two in three households in this region are food insecure at some level.

Table 2.17 Household food security

Percent distribution of households by level of food insecurity, according to background characteristics, Nepal 2011

Background characteristic	Food secure	Mildly food insecure	Moderately food insecure	Severely food insecure	Total	Number of households
Residence						
Urban	67.3	10.1	14.1	8.5	100.0	1,546
Rural	46.2	12.2	24.9	16.7	100.0	9,280
Ecological zone						
Mountain	40.5	18.2	26.1	15.1	100.0	761
Hill	47.2	12.3	28.7	11.8	100.0	4,563
Terai	52.1	10.7	18.6	18.6	100.0	5,502
Development region						
Eastern	55.9	11.1	19.0	13.9	100.0	2,685
Central	52.8	11.4	20.1	15.6	100.0	3,627
Western	51.4	11.3	27.1	10.1	100.0	2,304
Mid-western	31.9	12.5	28.5	27.1	100.0	1,241
Far-western	34.2	16.0	32.1	17.7	100.0	969
Subregion						
Eastern mountain	56.8	15.4	17.4	10.3	100.0	206
Central mountain	44.3	15.1	33.3	7.3	100.0	266
Western mountain	25.4	23.1	25.8	25.8	100.0	289
Eastern hill	49.6	14.4	25.3	10.7	100.0	847
Central hill	58.4	11.7	21.0	8.9	100.0	1,386
Western hill	46.6	11.6	34.5	7.2	100.0	1,415
Mid-western hill	28.9	11.4	30.8	29.0	100.0	577
Far-western hill	29.3	13.7	40.2	16.8	100.0	339
Eastern terai	59.1	8.9	16.0	16.0	100.0	1,632
Central terai	50.1	10.7	17.8	21.4	100.0	1,975
Western terai	59.1	10.9	15.3	14.7	100.0	889
Mid-western terai	39.8 37.4	13.5	26.1 29.0	20.6	100.0 100.0	519 487
Far-western terai	37.4	12.7	29.0	20.9	100.0	487
Wealth quintile						
Lowest	18.1	11.8	38.9	31.2	100.0	2,029
Second	32.6	13.6	29.2	24.7	100.0	2,168
Middle	46.3	14.0	25.4	14.2	100.0	2,068
Fourth	62.0	12.4	18.2	7.4	100.0	2,185
Highest	81.9	8.0	7.8	2.3	100.0	2,377
Total	49.2	11.9	23.4	15.5	100.0	10,826

Not surprisingly, households in the highest wealth quintile are much more likely to be food secure (82 percent) than households in the lowest wealth quintile (18 percent). A large proportion of households in the lowest wealth quintile fall in the moderately food insecure category (39 percent), and 31 percent fall in the severely food insecure category.

Among households that suffered from food insecurity, further questions were posed on coping strategies and causes. Table 2.18 provides information on strategies adopted by households to cope with food insecurity. Seven of 10 households with food insecurity took a loan to meet their food needs. Other coping strategies included consuming seeds that were meant for the next planting season (19 percent), selling livestock (31 percent), selling other household assets (9 percent), and working in short-term labor positions (4 percent). Households in rural areas were more likely to take loans (71 percent) than urban households (63 percent).

Households in the highest wealth quintile are least likely to take loans (54 percent), and households in the lowest wealth quintile are most likely to do so (76 percent). Households that are severely food insecure are more likely to take a loan (82 percent) than households that are moderately (67 percent) or mildly (61 percent) food insecure.

#### Table 2.18 Coping strategies of households with food insecurity

Among households with food insecurity, the percentage using various coping strategies according to background characteristics, Nepal 2011

Background characteristic	Took loan	Consumed seed	Sold livestock	Sold other household assets	Worked as labor	Number of food insecure households
Residence						
Urban	63.0	5.9	12.8	8.4	1.9	506
Rural	70.8	20.3	33.0	8.7	4.2	4,990
Ecological zone						
Mountain	73.1	28.1	40.7	8.0	10.8	453
Hill	72.4	23.1	37.3	7.2	4.0	2,409
Terai	67.5	13.7	23.9	10.2	2.7	2,634
Development region						
Eastern	72.3	13.0	41.3	10.5	1.6	1,184
Central	65.6	14.2	25.6	7.8	1.5	1,711
Western	66.3	13.6	25.9	4.7	6.1	1,119
Mid-western	72.0	36.7	35.5	13.9	11.0	845
Far-western	82.2	29.0	31.1	7.9	1.8	638
Subregion						
Eastern mountain	81.6	27.4	56.5	5.4	0.2	89
Central mountain	61.0	17.7	36.6	4.9	10.8	148
Western mountain	77.9	35.5	37.1	11.2	15.2	216
Eastern hill	74.9	17.6	55.6	8.1	0.0	427
Central hill	61.3	17.5	29.4	6.0	0.6	577
Western hill	66.8	14.0	29.8	4.3	5.5	755
Mid-western hill	87.7	49.0	47.7	14.2	12.1	410
Far-western hill	86.5	30.4	30.0	5.7	0.8	239
Eastern terai	69.4	8.1	30.1	12.7	2.9	668
Central terai	68.8	11.8	21.7	9.3	0.6	986
Western terai	65.3	12.8	17.8	5.5	7.3	364
Mid-western terai	51.7	18.6	22.8	12.9	3.3	312
Far-western terai	77.6	28.4	26.2	10.5	3.1	305
Wealth quintile						
Lowest	76.1	31.5	40.3	9.0	5.7	1,662
Second	73.3	17.3	32.4	8.3	4.3	1,462
Middle	70.2	13.6	29.4	10.0	3.9	1,110
Fourth	60.6	11.5	26.1	9.7	1.7	830
Highest	54.3	4.8	6.1	3.7	0.8	431
Degree of food insecurity						
Mildly food insecure	60.9	8.4	25.1	3.4	2.2	1,286
Moderately food insecure	67.1	17.4	32.6	7.0	3.6	2,531
Severely food insecure	81.8	29.6	33.7	15.4	5.9	1,679
Total	70.1	19.0	31.2	8.7	4.0	5,496

The 2011 NDHS also collected information on the causes of food insecurity. Table 2.19 describes the unexpected causes (drought, flood, landslide, crop failure) and temporary causes (financial problems) that were reported. Twenty-seven percent of households reported an unexpected natural disaster as a cause of their food insecurity, with 25 percent reporting a drought or crop failure. Two percent reported a flood or landslide as the major cause of their food insecurity. Financial problems were reported by 96 percent of the households facing food insecurity. Droughts and crop failures are more common in rural areas, the mountain zone, the Midwestern region, the Western mountain subregion, and households in the lowest wealth quintile. The relationship between household food insecurity and the nutritional status of children is analyzed in Chapter 11.

## Table 2.19 Causes of household food insecurity

Among households with food insecurity, the percentage that experienced food insecurity due to various causes, according to background characteristics, Nepal 2011

Background	Drought/ crop failure	Flood/ landslide	Financial problems	Other causes	Number of food insecure households
<b>Residence</b> Urban Rural	6.3 27.1	0.3 2.0	96.1 95.6	6.0 6.6	506 4,990
<b>Ecological zone</b> Mountain Hill Terai	56.4 31.7 13.9	5.1 2.0 1.2	95.1 95.4 96.0	11.8 8.7 3.7	453 2,409 2,634
Development region Eastern Central Western Mid-western Far-western	29.1 20.0 10.5 45.8 30.2	1.3 1.8 0.5 2.5 4.3	95.3 95.9 98.7 91.5 96.2	7.3 5.7 6.9 8.8 3.8	1,184 1,711 1,119 845 638
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	43.1 49.3 66.7 52.4 24.2 10.3 60.4 31.3 12.4 13.2 11.0 16.8 19.9	2.0 5.1 6.4 1.1 3.3 0.8 2.2 3.7 1.4 0.5 0.0 0.0 5.5	94.1 94.8 95.7 93.9 95.7 99.0 89.3 96.8 96.4 96.2 98.0 93.9 94.5	14.3 13.7 9.5 9.8 8.0 8.4 13.2 2.0 4.8 3.2 3.8 0.8 5.6	89 148 216 427 577 755 410 239 668 986 364 312 305
Wealth quintile Lowest Second Middle Fourth Highest	42.0 22.8 20.1 12.3 6.6	3.1 1.4 1.8 0.8 0.5	95.0 97.2 95.5 95.0 94.8	9.1 5.5 5.0 5.5 6.4	1,662 1,462 1,110 830 431
Degree of food insecurity Mildly food insecure Moderately food insecure Severely food insecure Total	23.0 25.4 26.6 25.2	1.0 1.9 2.4 1.9	93.5 95.9 97.0 95.7	5.3 6.4 7.8 6.6	1,286 2,531 1,679 5,496

## **Key Findings:**

- Forty percent of women and 14 percent of men age 15-49 have no education. However, the percentage of women and men with at least some secondary education or higher has increased by 48 percent and 26 percent, respectively, in the last five years.
- Thirty-two percent of married women report that their husbands live away from home.
- Thirty-three percent of women and 20 percent of men are not exposed to any media source.
- Sixty percent of women were employed in the 12 months preceding the survey, with the majority (75 percent) employed in the agricultural sector.
- The majority (61 percent) of working women are not paid for their work. In contrast, most men (76 percent) earn cash or cash and in-kind payments.

The purpose of this chapter is to create a demographic and socioeconomic profile of individual female and male respondents. This information helps in the interpretation of findings presented later in the report and provides an indication of the representativeness of the survey. The chapter begins by describing basic background characteristics, including age, marital status, religion, ethnicity, and wealth status. It then provides more detailed information on education, media exposure, employment, and tobacco use.

In 2011, for the second time, the NDHS gathered information from all women and men irrespective of their marital status; earlier surveys had sampled only ever-married women and men. The discussion in this report is therefore with reference to all women and men. However, when comparing information with past surveys, the data have been rerun for ever-married women and men wherever possible to enable comparability between surveys.

Throughout this report, numbers in the tables reflect weighted numbers. Percentages based on 25 to 49 unweighted cases are shown in parentheses, and percentages based on fewer than 25 unweighted cases are suppressed and replaced with an asterisk, to caution readers when interpreting data that a percentage based on fewer than 50 cases may not be statistically reliable.<sup>1</sup>

## 3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

A description of the basic characteristics of the 12,674 women and 4,121 men age 15-49 interviewed in the 2011 NDHS is presented in Table 3.1.

Relatively high proportions of both female and male respondents are in the younger age groups, with more than half of the respondents (56 percent of women and 54 percent of men) under age 30. In general, the proportion of women and men in each group declines as age increases, reflecting the comparatively young age structure of the population in Nepal as a result of past high fertility levels.

The vast majority of women and men are Hindu (84 percent), 9 percent are Buddhist, and 4 percent of women and 3 percent of men are Muslim. Two percent of women and men are Kirat, and another 2 percent are Christian.

<sup>&</sup>lt;sup>1</sup> Parentheses are used if mortality rates are based on 250 to 499 children exposed to the risk of mortality in any of the component rates; mortality rates are suppressed if they are based on fewer than 250 children exposed to the risk of mortality in any of the component rates.

Hill Janajatis are the dominant ethnic group, with 25 percent of women and 24 percent of men belonging to this group. Nearly one-fifth (19 percent) of both women and men are hill Chhetris. Fourteen percent of women and 15 percent of men are hill Brahmins, 10 percent of women and 12 percent of men are terai Janajati, 10 percent of women and 9 percent of men are hill Dalit, and 8 percent of women and 9 percent of men are other terai caste. The rest of the ethnic groups represent less than 5 percent of the population.

More than one-fifth of women (21 percent) and more than one-third of men (35 percent) have never been married. The majority of women (76 percent) and men (64 percent) are currently married, with a very small percentage divorced or separated. The majority of respondents reside in rural areas, with only 14 percent of women and 17 percent of men residing in urban areas. More than half (54 percent) of the respondents live in the terai, two-fifths (40 percent) live in the hill zone, and 6 percent live in the mountain zone.

Weighted         Women         Meighted           characteristic         percent         number         Unweighted         Weighted         Unweighted           Age         1         2753         2790         23.7         978         1.005           20-24         18.1         2297         2.281         16.6         6.66         685         533           25-29         16.6         2.101         2.123         1.661         13.1         442         533           30-34         13.7         1.754         1.661         13.1         442         533           40-44         10.1         1.225         1.266         10.6         433         453           40-44         10.1         1.225         1.266         3.472         3.472         3.48           Kirat         1.5         195         215         2.1         8.6         354         352           Musim         3.7         470         331         3.1         128         107           Kirat         1.5         195         215         2.1         86         352         352           Musim         3.7         470         318         1.45         597 <th colspan="11">Percent distribution of women and men age 15-49 by selected background characteristics, Nepal 2011 Women Men</th>	Percent distribution of women and men age 15-49 by selected background characteristics, Nepal 2011 Women Men										
characteristic         perčent         number         number         perčent         number           Age											
16-19       21.7       2.753       2.790       23.7       978       1,009         20-24       16.1       2.297       2.281       16.6       685       633         25-29       16.6       2.101       2.129       14.1       581       567         30-34       13.7       1.754       1.667       13.1       542       533         30-34       10.1       1.285       1.266       10.6       438       4584         40-44       10.1       1.285       1.266       10.6       438       4584         40-44       10.1       1.285       1.266       3.42       3.472       3.486         Buddhist       8.8       1.112       10.58       8.6       3.54       3.52         Muslim       3.7       470       331       3.1       128       107         Kirat       1.5       195       5       0.1       5       4         Ehnicity											
20-24         18.1         2.297         2.281         16.6         685         693           25-29         16.6         2.101         2.129         14.1         581         567           30-34         13.7         1,734         1,697         12.1         499         492           40-44         10.1         1,285         1,266         10.6         433         458           40-44         10.1         1,285         1,266         10.6         433         458           Buddhist         8.8         1,112         1,058         8.6         354         352           Buddhist         8.8         1,112         1,058         8.6         354         352           Christian         1.7         220         236         1,99         77         80           Other         0.0         5         5         0.1         5         4           Hill Brahmin/Chherti         1.2         1,468         169         1.3         54         500           Terai Datit         4.4         559         306         3.99         163         96           Newar         4.3         541         532         4.8         196 <td>Age</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Age										
25-29         16.6         2,101         2,129         14.1         581         567           35-39         12.3         1,557         1,561         13.1         542         533           40-44         10.1         1,285         1,266         10.6         433         458           45-49         7.5         947         950         9.7         399         369           Buddhist         8.8         1.112         10,829         84.2         3.472         3.486           Muslim         3.7         4.70         331         3.1         128         107           Kirat         1.5         195         215         2.1         86         352         3.5           Other         0.0         5         5         0.1         5         4         1.000         1.778         80         1.000         1.3         372         353         1.000         1.3         374         55         1.010         3.5         363         1.000         1.66         3.9         16.0         3.63         96         1.000         1.3         372         353         1.020         1.000         1.000         1.000         1.000         1.000         <	15-19	21.7	2,753		23.7	978	1,009				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$											
35-39       12.3       1.557       1.561       13.1       542       533         40-44       10.1       1.285       1.266       10.6       438       45.4         45-49       7.5       947       950       9.7       399       369         Religion											
40-44         10.1         1.285         1.266         10.6         488         458           45-49         7.5         947         950         9.7         399         369           Religion											
45-49         7.5         947         950         9.7         399         369           Religion											
Religion Hindu         84.2         10,672         10,829         84.2         3,472         3,486           Buddhist         8.8         1,112         1,058         8.6         354         352           Muslim         3.7         470         331         3.1         128         107           Kirat         1.5         195         215         2.1         86         92           Christian         1.7         220         236         1.9         77         80           Other         0.0         5         5         0.1         5         4           Ethnicity											
Hindu         64.2         10,672         10,829         84.2         3,472         3,486           Buddhist         8.8         1,112         1,058         8.6         354         352           Muslim         3.7         470         331         3.1         128         107           Kirat         1.5         195         215         2.1         86         92           Christian         1.7         220         236         1.9         77         80           Other         0.00         5         5         0.1         5         4           Hill Brahmin         14.2         1,805         1,798         14.5         597         618           Other Terai caste         7.9         1,003         730         9.0         372         303           Hill Datit         9.6         1,214         1,402         8.6         352         381           Newar         4.3         541         532         4.8         196         180           Newar         3.7         468         327         3.1         127         106           Other         0.2         25         27         0.3         14         1		7.5	947	950	9.7	399	309				
Buddhist         8.8         1,112         1,058         8.6         -354         352           Kirat         1.5         195         215         2.1         86         92           Christian         1.7         220         236         1.9         77         80           Other         0.0         5         5         0.1         5         4           Ethnicity		94.0	10 672	10.920	94.0	2 470	2 496				
Muslim         3.7         470         331         3.1         128         107           Kirat         1.5         195         215         2.1         86         92           Christian         1.7         220         236         1.9         77         80           Other         0.0         5         5         0.1         5         4           Ethnicity											
Kirat         1.5         196         215         2.1         86         92           Christian         1.7         220         236         1.9         77         80           Cother         0.0         5         5         0.1         5         4           Ethnicity											
Christian         1.7         220         236         1.9         77         80           Other         0.0         5         5         0.1         5         4           Hill Brahmin         14.2         1,805         1,798         14.5         597         618           Hill Chetri         1.2         156         169         1.3         54         55           Other Terai Caste         7.9         1,003         730         9.0         372         303           Hill Dalit         9.6         1,214         1,402         8.6         352         381           Newar         4.3         541         532         4.8         196         180           Newar         3.1         127         106         180         141         133           Other         0.2         25         27         0.3         14         133           Musim         3.7         468         327         3.1         127         106           Other         0.2         258         268         0.5         2.3         17           Residence											
Other         0.0         5         5         0.1         5         4           Ethnicity											
Hill Brahmin14.21,8051,79814.55976f.8Hill Chhetri19.22,4363,19918.97801,000Terai Brahmin/Chhetri1.21561691.35455Other Terai caste7.91,0037309.0372303Hill Dalit9.61,2141,4028.6352381Terai Jangiti4.45593063.916396Hewar4.35415524.8196180Hill Janajati24.93,1542,96623.5968906Herai Janajati10.41,3131,18812.1497463Muslim3.74683273.1127106Other0.22.5270.31413Marital status1.9009.93932Widowed2.02.582.680.52.317Residence1.8193.70117.47171.351Rural6.48052.0335.9245618Hill40.25.0904.97440.21.6581.582Terai53.56.7795.66753.82.2181.921Development region2.14.7653.00935.11.4481.002Mid-western1.1.71.4782.2751.0433781Terai3.34.											
Hill Brahmin14.21,8051,79814.55976f.8Hill Chhetri19.22,4363,19918.97801,000Terai Brahmin/Chhetri1.21561691.35455Other Terai caste7.91,0037309.0372303Hill Dalit9.61,2141,4028.6352381Terai Jangiti4.45593063.916396Hewar4.35415524.8196180Hill Janajati24.93,1542,96623.5968906Herai Janajati10.41,3131,18812.1497463Muslim3.74683273.1127106Other0.22.5270.31413Marital status1.9009.93932Widowed2.02.582.680.52.317Residence1.8193.70117.47171.351Rural6.48052.0335.9245618Hill40.25.0904.97440.21.6581.582Terai53.56.7795.66753.82.2181.921Development region2.14.7653.00935.11.4481.002Mid-western1.1.71.4782.2751.0433781Terai3.34.	Ethnicity										
Hill Chhetri         19.2         2.436         3.199         18.9         780         1.000           Terai Brahmi/Chhetri         1.2         156         169         1.3         54         55           Other Terai caste         7.9         1.003         730         9.0         372         303           Hill Dait         9.6         1.214         1.402         8.6         352         381           Terai Datit         4.4         559         306         3.9         163         96           Newar         4.3         541         532         4.8         196         180           Hill Janjati         10.4         1.313         1.198         12.1         497         463           Muslim         3.7         468         32.7         3.1         127         106           Other         0.2         25         27         0.3         14         13           Mariat status		14.2	1,805	1,798	14.5	597	618				
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Hill Dalit         9.6         1.214         1.402         8.6         352         381           Terai Dalit         4.4         559         306         3.9         163         96           Newar         4.3         541         532         4.8         196         180           Hill Janajati         10.4         1.313         1.198         12.1         497         463           Muslim         3.7         466         327         3.1         127         106           Other         0.2         25         27         0.3         14         13           Married         75.8         9.608         9.460         63.7         2.626         2.628           Divorced/separated         0.8         100         109         0.9         39         32           Widowed         2.0         258         268         0.5         23         17           Residence         Itrai         1.44         1.819         3.701         17.4         717         1.351           Rural         85.6         10.855         8.973         82.6         3.64         1.921           Decological zone         Itrua         40.2         5.0	Terai Brahmin/Chhetri	1.2	156				55				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Other Terai caste	7.9	1,003	730	9.0	372	303				
Newar         4.3         541         532         4.8         196         180           Hill Janajati         24.9         3,154         2,986         23.5         968         906           Muslim         3.7         468         327         3.1         12.7         106           Other         0.2         25         27         0.3         14         13           Marital status											
Hill Janajati       24.9       3,154       2,986       23.5       968       906         Terai Janajati       10.4       1,313       1,198       12.1       497       463         Muslim       3.7       468       327       3.1       127       106         Other       0.2       25       27       0.3       14       13         Marital status       Never married       21.4       2,708       2,837       34.8       1,433       1,444         Married'       75.8       9,608       9,460       63.7       2,626       2,628         Divorced/separated       0.8       100       109       0.9       39       32         Widowed       2.0       258       268       0.5       23       17         Residence       Urban       14.4       1,819       3,701       17.4       717       1,351         Rural       85.6       10,855       8,973       82.6       3,404       2,770         Ecological zone       E       E       Eastern       24.1       3,057       3,019       24.2       966       978         Central       33.4       4,236       3,009       35.1       1											
Terai Janajati         10.4         1,313         1,198         12.1         497         463           Muslim         3.7         468         327         3.1         127         106           Other         0.2         25         27         0.3         14         13           Marrial status											
Muslim         3.7         468         327         3.1         127         106           Other         0.2         25         27         0.3         14         13           Marital status         Never married         21.4         2,708         2,837         34.8         1,433         1,444           Married         75.8         9,608         9,460         63.7         2,626         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,628         2,771         1,551           Residence         Urban         14.4         1,819         3,701         17.4         717         1,551           Rural         85.6         10,855         8,973         82.6         3,404         2,770           Ecological zone         Mountain         6.4         805         2,033         5.9         245         618           Hill         40.2         5,067         53.8         2,218         1,921         Decempresion         21.0         2,660         2,304         19.4         798         706         Mid-westem											
Other         0.2         25         27         0.3         14         13           Married         21.4         2,708         2,837         34.8         1,433         1,444           Married         75.8         9,608         9,460         63.7         2,626         2,628           Divorced/separated         0.8         100         109         0.9         39         32           Widowed         2.0         258         268         0.5         23         17           Residence         Urban         14.4         1,819         3,701         17.4         717         1,351           Rural         85.6         10,855         2,033         5.9         245         618           Hill         40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         53.8         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         36.1         1,448         1,002           Western         21.											
Never married         21.4         2,708         2,837         34.8         1,433         1,444           Married <sup>1</sup> 75.8         9,608         9,460         63.7         2,626         2,628           Divorced/separated         0.8         100         109         0.9         39         32           Widowed         2.0         258         268         0.5         23         17           Residence         Urban         14.4         1,819         3,701         17.4         717         1,351           Rural         85.6         10,855         8,973         82.6         3,404         2,770           Ecological zone           40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         53.8         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798											
Never married         21.4         2,708         2,837         34.8         1,433         1,444           Married <sup>1</sup> 75.8         9,608         9,460         63.7         2,626         2,628           Divorced/separated         0.8         100         109         0.9         39         32           Widowed         2.0         258         268         0.5         23         17           Residence         Urban         14.4         1,819         3,701         17.4         717         1,351           Rural         85.6         10,855         8,973         82.6         3,404         2,770           Ecological zone           40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         53.8         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798	Marital status										
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		21.4	2 708	2 837	34.8	1 433	1 444				
Divorced/separated         0.8         100         109         0.9         39         32           Widowed         2.0         258         268         0.5         23         17           Residence											
Widowed         2.0         258         268         0.5         23         17           Residence         Urban         14.4         1,819         3,701         17.4         717         1,351           Rural         85.6         10,855         8,973         82.6         3,404         2,770           Ecological zone           40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         5.38         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798         706           Mid-western         11.7         1,478         2,275         12.0         493         781           Far-western         9.8         1,242         2,067         9.3         385         654           Subregion         Eastern mountain         2.0         258         669         1.7											
Urban14.41,8193,70117.47171,351Rural85.610,8558,97382.63,4042,770Ecological zone </td <td></td> <td>2.0</td> <td>258</td> <td>268</td> <td>0.5</td> <td>23</td> <td>17</td>		2.0	258	268	0.5	23	17				
Rural85.610,8558,97382.63,4042,770Ecological zone	Residence										
Ecological zone         Mountain         6.4         805         2,033         5.9         245         618           Hill         40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         53.8         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798         706           Mid-western         11.7         1,478         2,275         12.0         4933         781           Far-western         9.8         1,242         2,067         9.3         385         654           Subregion         Eastern mountain         2.0         258         669         1.7         69         177           Western mountain         2.5         319         627         2.7         110         218           Eastern hill         7.5         956         1,043         7.1         293         331     <	Urban	14.4	1,819	3,701	17.4	717	1,351				
Mountain         6.4         805         2,033         5.9         245         618           Hill         40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         53.8         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798         706           Mid-western         11.7         1,478         2,275         12.0         493         781           Far-western         9.8         1,242         2,067         9.3         385         654           Subregion         Eastern mountain         2.0         258         669         1.7         69         177           Western mountain         2.0         258         669         1.7         69         177           Western mountain         2.5         319         627         2.7         110         218           Eastern	Rural	85.6	10,855	8,973	82.6	3,404	2,770				
Mountain         6.4         805         2,033         5.9         245         618           Hill         40.2         5,090         4,974         40.2         1,658         1,582           Terai         53.5         6,779         5,667         53.8         2,218         1,921           Development region         Eastern         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798         706           Mid-western         11.7         1,478         2,275         12.0         493         781           Far-western         9.8         1,242         2,067         9.3         385         654           Subregion         Eastern mountain         2.0         258         669         1.7         69         177           Western mountain         2.0         258         669         1.7         69         177           Western mountain         2.5         319         627         2.7         110         218           Eastern	Ecological zone										
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Development region         24.1         3,057         3,019         24.2         996         978           Central         33.4         4,236         3,009         35.1         1,448         1,002           Western         21.0         2,660         2,304         19.4         798         706           Mid-western         11.7         1,478         2,275         12.0         493         781           Far-western         9.8         1,242         2,067         9.3         385         654           Subregion         Eastern mountain         2.0         258         669         1.7         69         177           Western mountain         2.0         258         669         1.7         69         177           Western mountain         2.5         319         627         2.7         110         218           Eastern hill         7.5         956         1,043         7.1         293         331           Central mountain         2.3         1,563         1,132         15.0         616         423           Western hill         1.9         1,513         1,101         10.7         440         337           Mid-western hill <td></td> <td></td> <td>5,090</td> <td>4,974</td> <td></td> <td>1,658</td> <td></td>			5,090	4,974		1,658					
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Western         21.0         2,660         2,304         19.4         798         706           Mid-western         11.7         1,478         2,275         12.0         493         781           Far-western         9.8         1,242         2,067         9.3         385         654           Subregion         Eastern mountain         1.8         229         737         1.6         66         223           Central mountain         2.0         258         669         1.7         69         177           Western mountain         2.5         319         627         2.7         110         218           Eastern hill         7.5         956         1,043         7.1         293         331           Central hill         12.3         1,563         1,132         15.0         616         423           Western hill         11.9         1,513         1,101         10.7         440         337           Mid-western hill         5.1         649         887         4.6         189         259           Far-western hill         3.2         409         811         2.9         120         232           Eastern terai <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
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Subregion         Eastern mountain         1.8         229         737         1.6         66         223           Central mountain         2.0         258         669         1.7         69         177           Western mountain         2.5         319         627         2.7         110         218           Eastern hill         7.5         956         1,043         7.1         293         331           Central hill         12.3         1,563         1,132         15.0         616         423           Western hill         5.1         649         887         4.6         189         259           Far-western hill         3.2         409         811         2.9         120         232           Eastern terai         14.8         1,873         1,239         15.5         638         424           Central terai         19.1         2,415         1,208         18.5         763         402           Western terai         9.1         1,147         1,203         8.7         358         369           Mid-western terai         5.3         668         1,071         5.9         242         399           Far-western terai											
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Eastern terai14.81,8731,23915.5638424Central terai19.12,4151,20818.5763402Western terai9.11,1471,2038.7358369Mid-western terai5.36681,0715.9242399Far-western terai5.36769465.3217327	Mid-western hill	5.1	649	887	4.6	189	259				
Central terai19.12,4151,20818.5763402Western terai9.11,1471,2038.7358369Mid-western terai5.36681,0715.9242399Far-western terai5.36769465.3217327											
Western terai         9.1         1,147         1,203         8.7         358         369           Mid-western terai         5.3         668         1,071         5.9         242         399           Far-western terai         5.3         676         946         5.3         217         327											
Mid-western terai         5.3         668         1,071         5.9         242         399           Far-western terai         5.3         676         946         5.3         217         327											
Far-western terai         5.3         676         946         5.3         217         327											
	rai-western terai	5.5	010	940	5.5	217	321 Continuea				

		Women			Men	
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Education						
No education	39.8	5,045	4,876	13.8	567	498
Primary	17.4	2,209	2,149	19.7	814	815
Some secondary	24.4	3,088	3,172	34.9	1,437	1,431
SLC and above	18.4	2,331	2,476	31.6	1,303	1,377
Wealth guintile						
Lowest	16.7	2,120	2,446	14.8	610	711
Second	18.9	2,393	2,296	16.9	695	688
Middle	20.5	2,600	2,336	20.1	830	727
Fourth	21.5	2,722	2,516	22.3	920	861
Highest	22.4	2,839	3,080	25.9	1,066	1,134
Total 15-49	100.0	12.674	12,674	100.0	4,121	4,121

Note: Education categories refer to the highest level of education attended. SLC = School Leaving Certificate

<sup>1</sup> Includes one woman and two men who are living together.

The distribution of respondents by development region shows that about one-third is from the Central region, nearly one-fourth from the Eastern region, and about one-fifth from the Western region. Twelve percent of the respondents live in the Mid-western region, and 10 percent of women and 9 percent of men are from the Far-western region. The subregional distribution shows the highest concentration of women and men in the Central terai (19 percent), followed by the Eastern terai (15 percent of women and 16 percent of men), Central hill (12 percent of women and 15 percent of men), and Western hill (12 percent of women and 11 percent of men) subregions. The proportion of women and men is less than 10 percent in each of the remaining subregions.

Education is one of the most influential factors affecting an individual's knowledge, attitudes, and behaviors in various facets of life. Educational attainment in Nepal is very low among women, who are much more disadvantaged than men. Forty percent of women do not have any formal education, as compared with 14 percent of men.

Seventeen percent of women and 20 percent of men have a primary-level education. Nearly one-fourth (24 percent) of women and more than one-third (35 percent) of men have some secondary education, and nearly one-fifth (18 percent) of women and one-third (32 percent) of men have completed their School Leaving Certificate (SLC) or gone on to higher levels of education.

### 3.1.1 Spousal Separation

The proportion of women whose spouses have been living away from home for a considerable period of time may have reproductive, demographic, and health implications. The 2011 NDHS collected detailed information on husbands living away from home.

Table 3.2 presents the percent distribution of currently married women age 15-49 whose husbands live away from home, according to selected background characteristics. Thirty-two percent of women reported that their husbands live away from home, 52 percent reported a spousal separation of less than seven months' duration, and 35 percent reported a separation lasting one or more years. Women under age 34 are more likely to have husbands living away from home than older women.

More rural women than urban women reported that their husbands live away from home (34 percent and 22 percent, respectively). Spousal separation is most prevalent in the Western development region (40 percent).

About one in two women in the Eastern region reported that their husband has been away for more than 12 months. This is especially true for women in the Eastern mountain region (57 percent). Women with no education are least likely to be separated from their husband for any length of time. Women with a primary education (37 percent) or some secondary education (36 percent) more often reported that their husbands live away from home. Women in the highest wealth quintile are least likely to report spousal separation.

#### Table 3.2 Spousal separation

Percentage of currently married women age 15-49 whose husbands live away from home, and among those whose husbands live away, percent distribution by duration away from home, according to background characteristics, Nepal 2011

Doolveround	Llugh and I	Number		-				
Background characteristic	Husband is away	Number of women	<7 months	7-11 months	12+ months	Don't know	Total	Number o women
Age								
15-19	37.3	792	63.7	18.3	17.8	0.2	100.0	295
20-24	42.7	1,761	54.2	15.3	30.5	0.0	100.0	752
25-29	38.3	1,914	50.2	11.9	37.7	0.2	100.0	732
30-34	32.6	1,659	50.6	12.3	37.1	0.0	100.0	540
35-39	29.1	1,461	45.8	10.2	44.0	0.0	100.0	425
40-44	20.0	1,190	44.3	10.0	45.7	0.0	100.0	238
45-49	11.4	832	57.5	4.9	37.6	0.0	100.0	95
Number of living children								
0	35.8	1,075	64.4	12.2	23.1	0.2	100.0	385
1-2	37.2	4,442	49.3	13.5	37.1	0.1	100.0	1,652
3-4	28.3	3,091	49.3	13.0	37.7	0.0	100.0	874
5+	16.6	999	58.7	6.2	35.1	0.0	100.0	166
Residence Urban	21.8	1.261	50.8	10.5	38.4	0.3	100.0	275
Rural	33.6	8,346	50.8	13.0	36.4 35.1	0.3	100.0	2,802
Ecological zone								
Mountain	27.2	630	59.4	9.8	30.8	0.0	100.0	172
Hill	32.2	3.784	53.1	11.9	34.9	0.2	100.0	1,217
Terai	32.5	5,193	50.0	13.8	36.2	0.0	100.0	1,689
Development region								
Eastern	32.5	2,293	37.5	12.1	50.3	0.0	100.0	745
Central	26.9	3,210	53.4	11.4	35.0	0.2	100.0	865
Western	39.7	2,031	50.2	14.7	34.9	0.1	100.0	807
Mid-western	29.7	1,149	68.4	11.5	20.1	0.0	100.0	341
Far-western	34.6	925	66.0	14.6	19.4	0.0	100.0	320
Subregion Eastern mountain	20.2	169	31.3	11.5	57.0	0.0	100.0	51
	30.3	169			57.2			
Central mountain	33.7		70.8	5.2	24.0	0.0	100.0	64
Western mountain	20.8	271	72.1	13.5	14.4	0.0	100.0	56
Eastern hill	30.9	702	38.1	13.2	48.7	0.0	100.0	217
Central hill	19.1	1,103	50.9	5.6	42.7	0.8	100.0	211
Western hill	41.8	1,164	52.9	13.6	33.3	0.1	100.0	487
Mid-western hill	36.6	510	66.7	12.7	20.6	0.0	100.0	187
Far-western hill	38.1	305	63.3	11.8	24.9	0.0	100.0	116
Eastern terai	33.5	1,421	38.0	11.7	50.3	0.0	100.0	477
Central terai	30.8	1,918	52.5	14.1	33.4	0.0	100.0	590
Western terai	36.9	867	46.1	16.4	37.4	0.1	100.0	320
Mid-western terai Far-western terai	27.8 33.4	499 488	70.0 66.6	10.2 16.6	19.8 16.9	0.0 0.0	100.0 100.0	139 163
Education								
No education	28.3	4,580	51.1	13.0	36.0	0.0	100.0	1,297
Primary	37.2	1,844	51.2	11.2	37.6	0.0	100.0	686
Some secondary	36.0	1,833	48.1	14.7	37.2	0.0	100.0	661
SLC and above	32.1	1,350	59.9	11.9	27.7	0.6	100.0	433
Wealth quintile								
Lowest	31.0	1,664	52.7	13.8	33.5	0.0	100.0	516
Second	35.8	1,846	58.8	12.4	28.9	0.0	100.0	660
Middle	35.0	2,022	52.1	13.4	34.5	0.0	100.0	707
Fourth	34.4	2,052	46.4	12.9	40.8	0.0	100.0	706
Highest	24.1	2,023	48.3	11.3	39.9	0.5	100.0	488
Fotal 15-49	32.0	9,608	51.7	12.8	35.4	0.1	100.0	3,077

## 3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Tables 3.3.1 and 3.3.2 show the distribution of respondents by educational attainment, according to background characteristics. Table 3.3.1 shows that two-fifths (40 percent) of women age 15-49 have never been to school, 12 percent have only some primary education, 6 percent have completed primary school, 24 percent have only some secondary education, 11 percent have completed secondary school, and 8 percent have a secondary education or higher. Older women and those who reside in rural areas are most likely to have no education. The urban-rural difference in level of education is pronounced for those who have completed secondary school or have more than a secondary education. For example, women in urban areas are more than twice as likely as those in rural areas to have a secondary education or more than a secondary education (38 percent and 15 percent, respectively).

#### Table 3.3.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Nepal 2011

				Median					
Background characteristic	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary	Total	years completed	Number o women
Age									
15-24	17.1	11.0	6.6	38.2	16.7	10.3	100.0	7.0	5,050
15-19	11.9	10.2	6.4	49.7	17.1	4.7	100.0	7.2	2,753
20-24	23.4	12.0	6.8	24.5	16.3	17.1	100.0	6.4	2,297
25-29	36.3	15.3	6.0	21.7	10.3	10.5	100.0	3.7	2,101
30-34	46.9	14.2	5.3	19.1	8.6	6.0	100.0	1.2	1,734
35-39	60.3	10.6	5.0	14.2	4.5	5.3	100.0	0.0	1,557
40-44	70.5	11.3	3.5	7.8	3.7	3.3	100.0	0.0	1,285
45-49	80.5	8.4	2.5	5.3	1.6	1.6	100.0	0.0	947
Residence									
Urban	22.0	9.8	4.5	25.6	17.9	20.1	100.0	7.8	1,819
Rural	42.8	12.3	5.7	24.1	9.4	5.7	100.0	2.6	10,855
Ecological zone									
Mountain	52.0	12.7	4.6	21.0	6.7	3.0	100.0	0.0	805
Hill	35.5	12.3	6.2	25.6	10.3	10.0	100.0	4.4	5,090
Terai	41.6	11.6	5.1	23.8	11.3	6.7	100.0	3.2	6,779
Development region									
Eastern	31.0	14.2	4.5	29.2	14.6	6.5	100.0	5.1	3,057
Central	45.0	11.5	4.5	19.2	9.1	10.7	100.0	1.9	4,236
Western	32.3	11.4	8.1	29.0	11.4	7.7	100.0	4.8	2,660
Mid-western	47.8	11.8	4.8	22.6	8.0	5.0	100.0	1.0	1,478
Far-western	50.3	9.2	6.4	22.1	7.4	4.6	100.0	0.0	1,242
Subregion									
Eastern mountain	32.6	16.1	6.4	30.8	10.2	4.0	100.0	4.2	229
Central mountain	51.9	12.7	4.8	20.7	6.8	3.1	100.0	0.0	258
Western mountain	66.0	10.4	3.0	14.2	4.1	2.2	100.0	0.0	319
Eastern hill	32.2	15.2	5.9	32.2	9.8	4.6	100.0	4.4	956
Central hill	30.7	11.3	4.3	20.9	12.2	20.5	100.0	6.2	1,563
Western hill	32.0	12.6	8.8	29.3	11.2	6.1	100.0	4.6	1,513
Mid-western hill	45.4	11.9	5.7	22.6	8.1	6.4	100.0	2.1	649
Far-western hill	58.5	9.2	5.6	19.2	4.5	3.1	100.0	0.0	409
Eastern terai	30.3	13.4	3.6	27.4	17.6	7.7	100.0	5.6	1,873
Central terai	53.5	11.5	4.6	17.9	7.2	5.2	100.0	0.0	2,415
Western terai	32.7	9.8	7.2	28.6	11.7	9.8	100.0	5.0	1,147
Mid-western terai	45.1	11.7	4.8	25.3	8.8	4.3	100.0	2.4	668
Far-western terai	42.2	9.3	7.3	25.2	10.0	5.9	100.0	3.6	676
Wealth quintile									
Lowest	63.9	14.3	5.4	14.5	1.3	0.7	100.0	0.0	2,120
Second	54.6	12.3	6.5	21.7	4.2	0.8	100.0	0.0	2,393
Middle	44.8	14.0	5.9	24.9	7.6	2.8	100.0	1.7	2,600
Fourth	30.7	12.7	5.3	28.8	15.5	7.0	100.0	5.3	2,722
Highest	13.6	7.3	4.5	29.3	21.0	24.3	100.0	8.6	2,839
Total	39.8	11.9	5.5	24.4	10.6	7.8	100.0	3.5	12,674

<sup>2</sup> Completed grade 10 at the secondary level

Respondents of the hill zone are more likely than those in the mountain and terai zones to have more than a secondary-level education. One in two women in the Far-western region has no education, compared with one in three women in the Eastern region. Among the subregions, two-thirds of women living in the Western mountain subregion have no education, compared with less than one in three women living in the Eastern terai.

Respondents' educational attainment is directly related to their economic status. An examination of education by wealth quintile indicates that women in the highest wealth quintile are most likely to have a secondary education or higher. For example, 45 percent of women in the highest wealth quintile have completed secondary school or have more than a secondary education, compared with just 2 percent of women in the lowest wealth quintile.

Nationally, women have completed a median of 3.5 years of school. Urban women have completed a median of 7.8 years, as compared with 2.6 years among rural women. Median number of years of schooling completed is highest among women from the Eastern region (5.1) and lowest among women in the Far-western region (0.0). There is a notable difference in median number of years completed by wealth quintile (8.6 in the highest quintile versus 0.0 in the lower two quintiles).

A similar educational attainment pattern is found among men (Table 3.3.2). However, men are more educated than women in all categories. Nationally, 14 percent of men age 15-49 have no education, and the same proportion have only some primary education. Thirty-five percent of men have only some secondary schooling, and 32 percent have a secondary education or higher. Men age 45-49 are more likely to have no education (31 percent) than men age 15-24 (4 percent). Men from urban areas have higher levels of educational attainment than their rural counterparts. Six percent of urban men have no formal education, compared with 15 percent of their rural counterparts. More than half (52 percent) of men in urban areas have a secondary education or higher, compared with slightly more than one-fourth (28 percent) in rural areas. Overall, men age 15-49 have completed a median of 7.4 years of schooling. Median years of schooling completed increases with wealth, from 3.3 years among men in the lowest quintile to 9.5 years among men in the highest quintile.

#### Table 3.3.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Nepal 2011

			Median						
Background characteristic	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary	Total	years completed	Number o men
Age									
15-24	4.3	7.5	4.9	44.3	22.5	16.5	100.0	8.3	1,663
15-19	4.0	6.7	4.8	55.3	22.6	6.6	100.0	8.0	978
20-24	4.8	8.6	5.2	28.6	22.4	30.5	100.0	9.1	685
25-29	13.4	16.1	6.6	34.6	14.3	15.0	100.0	6.9	581
30-34	21.1	15.1	7.1	29.9	11.1	15.8	100.0	6.5	499
35-39	18.0	15.8	6.7	29.8	13.2	16.5	100.0	6.8	499 542
40-44	21.3	22.5	7.0	26.1	10.0	13.2	100.0	4.9	438
45-49	30.5	23.1	5.5	18.7	10.8	11.5	100.0	3.3	399
Residence									
Urban	6.0	10.3	4.6	27.6	22.1	29.5	100.0	9.1	717
Rural	15.4	14.6	6.2	36.4	15.1	12.4	100.0	7.0	3,404
Ecological zone									
Mountain	14.8	18.6	9.0	35.8	13.0	8.7	100.0	6.5	245
Hill	9.8	15.0	5.8	35.0	16.5	18.0	100.0	7.8	1,658
Terai	16.6	12.4	5.7	34.7	16.5	14.1	100.0	7.1	2,218
Development region									
Eastern	8.6	13.4	5.8	39.2	19.8	13.2	100.0	7.8	996
Central	17.4	13.4	5.9	29.7	14.5	18.9	100.0	6.9	1,448
Western	10.6	14.1	5.9	36.9	17.3	15.3	100.0	7.8	798
Mid-western	19.4	14.6	7.2	33.1	13.9	11.8	100.0	6.8	493
Far-western	12.8	14.1	4.8	41.2	14.8	12.2	100.0	7.2	385
Subregion									
Eastern mountain	8.6	15.8	7.7	47.7	12.3	8.0	100.0	6.8	66
Central mountain	15.0	26.8	8.6	31.8	11.9	5.9	100.0	4.9	69
Western mountain	18.3	15.1	10.1	31.2	14.2	11.0	100.0	6.6	110
Eastern hill	8.2	14.5	7.5	45.2	16.4	8.2	100.0	7.6	293
Central hill	9.5	12.9	4.7	27.7	17.5	27.7	100.0	8.4	616
Western hill	8.4	17.6	5.6	36.5	17.2	14.8	100.0	7.7	440
Mid-western hill	17.8	15.1	7.4	31.9	13.9	13.8	100.0	7.1	189
Far-western hill	7.3	17.8	5.3	46.5	13.3	9.7	100.0	7.1	120
Eastern terai	8.8	12.7	4.8	35.6	22.1	16.0	100.0	8.0	638
Central terai	24.0	12.7	6.6	31.0	12.4	13.0	100.0	5.8	763
		9.9	6.3	37.4	17.4	15.8	100.0	8.1	358
Western terai	13.2								
Mid-western terai	20.7	14.8	5.8	33.9	14.1	10.7	100.0	6.6	242
Far-western terai	15.0	11.1	3.9	41.2	15.4	13.4	100.0	7.3	217
Wealth quintile									
Lowest	32.1	23.8	7.4	30.0	4.7	2.0	100.0	3.3	610
Second	21.4	19.2	8.9	37.2	8.5	4.9	100.0	5.1	695
Middle	17.6	15.9	7.4	40.1	12.4	6.5	100.0	6.3	830
Fourth	6.1	11.4	5.1	39.3	23.1	15.0	100.0	8.0	920
Highest	1.9	5.1	2.8	28.2	25.1	36.9	100.0	9.5	1,066
Total 15-49	13.8	13.8	5.9	34.9	16.3	15.3	100.0	7.4	4,121

<sup>2</sup> Completed grade 10 at the secondary level

The percentage of women who completed some secondary education or had a secondary education or higher increased by 48 percent from 29 percent in 2006 to 43 percent in 2011. A smaller increase (26 percent) was seen among men, from 53 percent in 2006 to 67 percent in 2011.

## 3.3 LITERACY

The ability to read and write empowers women and men. Literacy statistics are important for policymakers and program managers to gauge the health and nutrition status and overall well-being of the population. In the 2011 NDHS, literacy was determined by respondents' ability to read all or part of a simple sentence. During data collection, interviewers carried a set of cards on which simple sentences were printed in three of the country's major languages (Nepali, Maithili, and Bhojpuri) for testing a respondent's reading ability. Those who had never been to school and those who had only a primary education were asked to read the cards in the language they were most familiar with. Those with a secondary education or higher were assumed to be literate.

Table 3.4.1 indicates that two-thirds of women in Nepal (67 percent) are literate, which represents an increase from the 2006 figure of 55 percent. The level of literacy is much higher among women age 15-19 than among women in other age groups. This suggests that younger women have had more opportunity for learning than older women. Literacy varies by place of residence. Eighty-three percent of women residing in urban areas are literate, compared with 64 percent of rural women. Literacy is higher among women living in the hill zone (73 percent) than women living in the mountain and terai zones (58 percent and 63 percent, respectively).

#### Table 3.4.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nepal 2011

		N						
Background characteristic	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Total	Percentage	Number of women
Age 15-24	65.3	12.7	4.7	17.3	0.0	100.0	82.7	E 050
15-24	65.3 71.5	12.7	4.7 3.6	17.3	0.0	100.0	85.9	5,050 2,753
20-24	71.5 57.8	15.0	3.6 6.0	21.2	0.0	100.0	78.8	
25-29	42.4			30.6			69.3	2,297
25-29 30-34	42.4 33.6	18.5 19.9	8.3 9.9	36.6	0.1 0.0	100.0 100.0	63.4	2,101
30-34 35-39	24.1	18.4	9.9 11.1	46.4	0.0	100.0	53.6	1,734 1,557
40-44	14.8	16.4	11.1	40.4 57.7	0.0	100.0	42.2	1,285
45-49	8.6	14.5	13.0	63.8	0.0	100.0	36.2	947
Residence								
Urban	63.7	12.5	6.6	17.1	0.2	100.0	82.8	1,819
Rural	39.2	16.4	8.3	36.0	0.2	100.0	64.0	10,855
	00.2	10.4	0.0	00.0	0.0	100.0	04.0	10,000
Ecological zone	20.7	477	0.5	42.1	0.0	100.0	57.0	805
Mountain Hill	30.7 46.0	17.7 19.1	9.5 8.1		0.0 0.1	100.0	57.9	5,090
Terai	40.0	13.2	7.8	26.8 37.2	0.1	100.0 100.0	73.2 62.8	6,779
	41.0	13.2	7.0	57.2	0.0	100.0	02.0	0,779
Development region	50.2	15.0	6.6	00.4	0.0	100.0	71.0	2.057
Eastern	50.3	15.0	6.6 7.4	28.1	0.0	100.0	71.9	3,057
Central Western	39.0 48.1	13.2 20.0	7.4 8.9	40.3 23.0	0.1	100.0	59.6	4,236 2,660
Mid-western	35.6	18.5	8.1	23.0 37.8	0.0 0.0	100.0 100.0	77.0 62.2	2,000
Far-western	34.2	14.9	12.1	38.8	0.0	100.0	61.2	1,242
Subregion								,
Eastern mountain	45.0	22.6	8.1	24.3	0.0	100.0	75.7	229
Central mountain	30.6	22.7	8.6	38.2	0.0	100.0	61.8	258
Western mountain	20.6	10.0	11.3	58.1	0.0	100.0	41.9	319
Eastern hill	46.7	20.9	6.2	26.3	0.0	100.0	73.7	956
Central hill	53.7	15.3	7.1	23.8	0.1	100.0	76.1	1,563
Western hill	46.6	23.6	8.8	21.1	0.0	100.0	78.9	1,513
Mid-western hill	37.1	19.3	7.5	36.2	0.0	100.0	63.8	649
Far-western hill	26.7	12.5	15.3	45.3	0.2	100.0	54.5	409
Eastern terai	52.8	11.0	6.7	29.5	0.0	100.0	70.5	1,873
Central terai	30.3	10.9	7.5	51.3	0.0	100.0	48.7	2,415
Western terai	50.2	15.2	9.0	25.6	0.0	100.0	74.4	1,147
Mid-western terai	38.5	19.7	8.1	33.7	0.0	100.0	66.3	668
Far-western terai	41.1	17.5	10.2	31.2	0.0	100.0	68.8	676
Wealth quintile								
Lowest	16.4	17.6	10.1	55.8	0.0	100.0	44.1	2,120
Second	26.7	18.4	7.8	47.1	0.0	100.0	52.9	2,393
Middle	35.3	16.5	9.1	39.1	0.0	100.0	60.9	2,600
Fourth	51.4	16.6	8.5	23.5	0.0	100.0	76.5	2,722
Highest	74.6	11.1	5.3	8.9	0.1	100.0	91.0	2,839
Total	42.8	15.8	8.1	33.3	0.0	100.0	66.7	12,674

<sup>1</sup> Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

Regional and subregional differences are notable, with literacy being highest among women in the Western region (77 percent) and lowest in the Central region (60 percent). The percentage of literate women is highest in the Western hill subregion (79 percent) and lowest in the Western mountain subregion (42 percent). There is also a significant difference in literacy by household wealth, with the literacy rate ranging from 44 percent among women in the lowest wealth quintile to 91 percent among women in the highest quintile. This reaffirms the positive association between economic status and literacy.

Men are more likely to be literate than women (Table 3.4.2). Eighty-seven percent of Nepalese men age 15-49 are literate, an increase from 81 percent in 2006. The pattern of male literacy is similar to that of females. However, there are marked differences between men and women across age groups. Seventy-seven percent of men age 45-49 are literate, compared with 36 percent of women in the same age group. The gap in urban-rural literacy among men is smaller than that among women, suggesting that men in rural areas are better able to access learning than women. Men in the Eastern, Western, and Far-western development regions are more likely to be literate than those in the other development regions.

#### Table 3.4.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nepal 2011

		-	°	or primary schoo				
Background characteristic	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	Blind/ visually impaired	Total	Percentage literate <sup>1</sup>	Number o men
Age								
15-24	83.3	8.1	3.2	5.4	0.0	100.0	94.6	1,663
15-19	84.5	6.9	2.9	5.6	0.0	100.0	94.4	978
20-24	81.5	9.8	3.6	5.1	0.0	100.0	94.9	685
25-29	63.9	16.7	7.1	12.2	0.1	100.0	87.7	581
30-34	56.7	17.4	4.4	21.5	0.0	100.0	78.5	499
35-39	59.5	14.8	8.5	17.2	0.0	100.0	82.8	542
40-44	49.2	25.3	6.9	18.6	0.0	100.0	81.4	438
45-49	40.9	27.7	7.8	23.1	0.5	100.0	76.5	399
Residence								
Urban	79.2	11.1	4.9	4.8	0.1	100.0	95.1	717
Rural	63.8	15.9	5.6	14.7	0.1	100.0	85.3	3,404
Ecological zone								
Mountain	57.6	20.7	8.2	13.5	0.0	100.0	86.5	245
Hill	69.4	17.3	6.0	7.3	0.0	100.0	92.7	1,658
Terai	65.3	12.8	4.7	17.1	0.1	100.0	82.8	2,218
Development region								
Eastern	72.1	13.4	5.3	9.2	0.0	100.0	90.8	996
Central	63.1	14.9	4.5	17.4	0.0	100.0	82.6	1,448
Western	69.4	15.4	6.1	9.1	0.0	100.0	90.9	798
Mid-western	58.8	18.0	7.3	15.7	0.2	100.0	84.1	493
Far-western	68.2	15.4	5.4	10.7	0.3	100.0	89.0	385
Subregion								
Eastern mountain	67.9	20.8	5.1	6.2	0.0	100.0	93.8	66
Central mountain	49.5	28.0	10.4	12.0	0.0	100.0	88.0	69
Western mountain	56.4	16.1	8.7	18.8	0.0	100.0	81.2	110
Eastern hill	69.8	17.9	5.9	6.4	0.0	100.0	93.6	293
Central hill	72.9	15.7	4.3	7.0	0.0	100.0	93.0	616
Western hill	68.4	18.5	6.9	6.1	0.0	100.0	93.9	440
Mid-western hill	59.7	18.5	8.7	13.1	0.0	100.0	86.9	189
Far-western hill	69.6	16.9	6.5	7.0	0.0	100.0	93.0	120
Eastern terai	73.7	10.5	5.0	10.8	0.0	100.0	89.2	638
Central terai	56.5	13.1	4.2	26.2	0.1	100.0	73.7	763
Western terai	70.7	11.4	5.2	12.7	0.0	100.0	87.3	358
Mid-western terai Far-western terai	58.8 70.0	17.9 14.7	6.4 3.4	16.6 11.4	0.3 0.6	100.0 100.0	83.0 88.0	242 217
	70.0	14.7	0.4	11.4	0.0	100.0	00.0	217
Wealth quintile Lowest	36.8	25.7	9.7	27.8	0.0	100.0	72.2	610
Second	50.5	22.1	9.7 5.4	21.8	0.0	100.0	72.2	695
Middle	59.0	17.7	7.1	16.0	0.1	100.0	83.8	830
Fourth	77.4	10.9	4.3	7.4	0.2	100.0	92.6	920
Highest	90.3	5.8	2.7	1.2	0.0	100.0	98.8	1,066
Total 15-49	66.5	15.0	5.4	13.0	0.1	100.0	87.0	4,121

### 3.4 ACCESS TO MASS MEDIA

In the 2011 NDHS, exposure to media was assessed by asking respondents whether they listened to a radio, watched television, or read newspapers or magazines at least once a week. This information is useful for program managers and planners in determining which media may be more effective for disseminating health-related information to targeted audiences.

Media exposure in Nepal is higher among men than women. Seven percent of women and 20 percent of men are exposed to all three media at least once a week (Table 3.5.1 and Table 3.5.2). Forty-four percent of women and 59 percent of men listen to the radio at least once a week, and 47 percent of women and 55 percent of men watch television at least once a week.

Doolveround	Reads a newspaper at	Watches	Listens to radio	Accesses all three media at	Accesses none of the three	Number of
Background characteristic	least once a week	television at least once a week	at least once a week	least once a week	media at least once a week	Number of women
Age						
15-19	17.6	52.2	55.0	10.8	24.4	2,753
20-24	15.7	50.7	46.2	8.8	30.1	2,297
25-29	12.7	49.3	42.3	7.6	32.7	2,101
30-34	12.0	48.5	40.0	6.8	33.9	1,734
35-39	9.6	41.4	40.8	5.5	38.7	1,557
40-44	6.8	40.4	36.7	3.4	40.9	1,285
45-49	4.1	38.7	35.4	2.6	43.5	947
Residence						
Urban	35.1	79.7	46.5	20.4	12.8	1,819
Rural	8.8	42.0	43.8	5.2	36.3	10,855
Ecological zone						
Mountain	5.6	26.9	56.9	3.5	34.8	805
Hill	15.1	43.4	51.6	8.1	29.2	5,090
Terai	11.6	52.9	37.1	7.3	35.6	6,779
Development region						
Eastern	16.5	53.7	52.7	10.7	24.8	3,057
Central	16.2	50.2	38.4	9.0	35.1	4,236
Western	8.8	50.5	43.8	4.9	31.3	2,660
Mid-western	6.3	32.5	42.6	3.3	41.7	1,478
Far-western	6.4	33.6	45.9	3.6	39.0	1,242
Subregion						
Eastern mountain	5.6	26.7	65.2	2.5	28.5	229
Central mountain	10.1	40.3	64.0	7.1	26.4	258
Western mountain	1.9	16.3	45.3	1.3	46.3	319
Eastern hill	8.2	33.0	67.9	5.1	24.3	956
Central hill	33.9	64.5	48.1	17.1	17.4	1,563
Western hill	7.7	42.9	51.4	4.6	31.6	1,513
Mid-western hill	6.0	24.9	40.5	3.2	46.8	649
Far-western hill	1.4	18.4	45.7	1.0	49.1	409
Eastern terai	22.0	67.6	43.4	14.5	24.6	1,873
Central terai	5.4	41.9	29.4	4.0	47.5	2,415
Western terai	10.3	60.7	33.7	5.2	30.9	1,147
Mid-western terai	8.1	43.7	47.0	4.2	32.9	668
Far-western terai	10.1	46.8	43.2	5.4	33.8	676
Education						
No education	0.2	25.0	30.1	0.1	55.0	5,045
Primary	2.9	44.4	41.1	1.5	33.1	2,209
Some secondary	15.9	60.9	56.1	9.1	17.2	3,088
SLC and above	44.2	80.9	61.8	26.3	6.0	2,331
Wealth quintile						
Lowest	0.9	5.9	35.8	0.2	61.2	2,120
Second	2.2	17.4	43.6	1.2	49.9	2,393
Middle	3.8	41.6	45.4	2.4	36.2	2,600
Fourth	12.4	68.2	47.6	7.8	21.2	2,722
Highest	38.3	89.2	46.7	21.9	6.0	2,839
Fotal	12.6	47.4	44.2	7.4	33.0	12,674

Young women and men under age 25 are more likely to be exposed to the mass media than older women and men, presumably in part because of their higher level of education. There is a wide gap in exposure to mass media by place of residence. For example, the proportion of newspaper readers is significantly higher among urban women (35 percent) and men (60 percent) than among their rural counterparts (9 percent and 29

percent, respectively). Not surprisingly, media exposure is highly related to the educational level as well as economic status of respondents. While 26 percent of women and 41 percent of men with an SLC and higher level of education access all three media at least once a week, less than 1 percent of women and men with no education do so. Likewise, 22 percent of women and 39 percent of men from the highest wealth quintile access all three media at least once a week, while less than 1 percent of women and men from the lowest quintile do so. The reason for the lower level of exposure to media among poor respondents may be that they are less likely to own a radio or television and, therefore, less likely to be consistently exposed to these media sources.

Women and men residing in the Eastern region are more likely to be exposed to all three media on a weekly basis than those in the other regions. The proportion of newspaper readers is highest among women in the Central hill subregion (34 percent) and men in the Central hill and Eastern terai subregions (54 percent each). The proportion of television viewers is highest in the Eastern terai subregion for both women (68 percent) and men (78 percent).

Background	Reads a newspaper at least once a	Watches television at least	Listens to radio at least once a	Accesses all three media at least once a	Accesses none of the three media at least	
characteristic	week	once a week	week	week	once a week	Number of mer
Age						
15-19	35.2	61.3	65.3	23.2	14.0	978
20-24	46.0	59.0	66.4	25.4	10.2	685
25-29	33.0	55.3	55.2	18.2	19.7	581
30-34	32.7	53.7	50.5	18.7	24.5	499
35-39	33.4	51.3	52.3	18.2	25.6	542
40-44	30.4	47.7	56.5	18.2	26.1	438
45-49	20.5	43.3	53.5	12.6	27.3	399
Residence						
Urban	60.3	77.6	55.8	33.3	8.4	717
Rural	28.7	49.8	59.0	17.3	21.9	3,404
Ecological zone						
Mountain	12.4	26.2	70.9	6.6	22.8	245
Hill	35.0	50.7	64.3	19.3	16.8	1,658
Terai	36.0	60.7	52.7	22.2	21.2	2,218
Development region						
Eastern	39.7	62.8	63.4	26.7	14.3	996
Central	37.6	58.4	56.4	21.2	19.5	1,448
Western	34.4	60.1	56.3	19.5	18.3	798
Mid-western	23.7	33.6	57.5	12.4	27.8	493
Far-western	20.2	35.1	59.0	10.1	25.0	385
Subregion						
Eastern mountain	13.0	29.4	73.9	5.7	21.0	66
Central mountain	17.1	38.7	73.8	12.0	18.6	69
Western mountain	9.2	16.5	67.4	3.7	26.6	110
Eastern hill	15.6	38.2	71.3	10.4	20.0	293
Central hill	53.9	65.6	59.4	28.5	11.5	616
Western hill	31.5	55.4	65.1	18.3	17.3	440
Mid-western hill	26.7	28.9	66.1	13.2	21.8	189
Far-western hill	10.6	22.4	66.7	6.6	26.6	120
Eastern terai	53.6	77.5	58.7	36.4	11.0	638
Central terai	26.2	54.5	52.4	16.1	26.0	763
Western terai	37.9	65.8	45.5	20.9	19.6	358
Mid-western terai	25.8	42.6	48.0	14.5	32.1	242
Far-western terai	27.2	45.2	53.1	12.9	24.6	217
Education						
No education	0.8	19.9	36.4	0.2	52.1	567
Primary	8.8	38.0	52.1	4.2	30.4	814
Some secondary	31.3	57.7	61.7	18.2	14.9	1,437
SLC and above	67.8	76.8	68.5	40.8	3.6	1,303
Wealth quintile						
Lowest	3.4	6.2	50.3	0.6	47.3	610
Second	10.3	23.3	60.8	4.8	33.0	695
Middle	24.0	51.6	61.6	14.2	19.7	830
Fourth	44.8	74.4	61.0	27.9	10.0	920
Highest	66.2	88.2	57.0	39.1	2.9	1,066
Total 15-49	34.2	54.7	58.5	20.1	19.5	4,121

#### 3.4.1 Access to Specific Radio and Television Programs

Dissemination of population and health information through the electronic media, and especially through the radio, is not new in Nepal. The National Health Education, Information and Communication Center, USAID, UNICEF, and other organizations have launched several different radio and television programs to raise awareness, especially related to health issues. The 2011 NDHS collected information on exposure to several specific television and radio programs: Jana swasthya radio karyakram, Janasankhaya chetanaka swore haru radio karyakram, Hamro swastha radio karyakram, Ama radio and Ama TV karyakram, Hamro swastha TV karyakram, Jeevan chakra TV karyakram, Thorai bhaya pugi sari TV karyakram, Sathi sanga manka kura, and Jeevan Jyoti radio Karyakram. Tables 3.6.1 and 3.6.2 show the percentages of men and women who have heard or seen such programs in the past few months preceding the survey.

harazterisic         karyakram												
	Background haracteristic	swasthya radio	chetanaka swore haru radio	swastha radio		manka kura radio	radio	swastha TV	chakra TV	pugi sari ŤV		Number o women
	\ge											
25-29       16.9       13.0       12.5       7.7       33.0       3.4       13.9       26.6       27.0       12.7       2.10         38-34       16.5       11.5       10.4       13.2       8.5       24.1       4.6       11.9       23.1       25.1       10.9       1.5         45-49       14.4       10.0       10.9       7.3       16.6       2.7       9.0       22.2       2.2       11.2       9.4         45-49       14.4       10.0       10.9       7.3       16.6       2.7       9.0       22.2       2.6       11.2       9.4         esidence       Utana       16.6       12.4       14.6       6.7       34.6       4.8       20.0       36.1       39.0       20.6       1.84         Mountain       14.4       16.5       10.1       38.9       3.9       11.7       22.7       21.9       10.5       5.090         Terai       14.7       11.4       11.6       16.1       23.9       3.5       14.1       32.6       32.9       15.1       1.6       33.5       36.1       34.0       15.6       30.6       30.6       34.0       36.3       30.6       34.1       32.6 </td <td></td> <td>18.4</td> <td>15.0</td> <td>15.8</td> <td>9.7</td> <td>49.7</td> <td>4.4</td> <td>13.4</td> <td>33.1</td> <td>29.1</td> <td>13.4</td> <td>2,753</td>		18.4	15.0	15.8	9.7	49.7	4.4	13.4	33.1	29.1	13.4	2,753
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	20-24	19.2	15.6	17.3	8.5	42.6	4.4	13.9	30.5	29.8	13.4	2,297
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	25-29	16.9	13.0	12.5	7.7	33.0	3.4	13.9	26.6	27.0	12.7	2,101
	30-34	16.5	11.5	14.3	8.3	25.5	3.3	13.7	27.5	27.7	14.1	1,734
45-49       14.4       10.0       10.9       7.3       16.6       2.7       9.0       22.2       22.6       11.2       947         esidence	35-39	15.1	10.4	13.2	8.5	24.1	4.6	11.9	23.1	25.1	10.9	1,557
estimation of the second state	40-44	13.7	9.4	13.9	7.6	19.7	3.2	11.0	20.5	22.7	12.3	1,285
Urban         18.5         14.7         13.6         6.7         34.6         4.8         20.0         36.1         39.0         20.6         1.6           Mountain         16.6         12.4         14.6         8.7         33.5         3.7         11.7         26.0         25.1         11.5         10.85           cological zone	45-49	14.4	10.0	10.9	7.3	16.6	2.7	9.0	22.2	22.6	11.2	947
Rural       16.6       12.4       14.6       8.7       33.5       3.7       11.7       26.0       25.1       11.5       10.855         cological zone	lesidence											
Cological zone         Mountain         24.4         16.4         24.9         10.3         37.9         6.1         9.7         14.7         10.8         7.7         800           Hill         18.5         14.0         16.5         10.1         38.9         3.9         3.1         12.2         21.9         10.5         50.99           Terai         14.7         11.4         11.6         6.9         29.3         3.5         14.1         32.6         32.9         15.1         6.75           Central         12.9         10.4         10.8         5.1         25.7         3.1         12.5         26.9         27.8         12.2         4.33           Western         17.9         13.0         14.3         11.4         37.1         3.2         12.1         30.1         27.1         14.9         266           Western         23.4         15.8         21.8         10.2         33.5         4.4         11.6         21.0         20.3         10.0         12.4           Western mountain         20.0         9.5         9.4         55.3         6.8         10.3         12.2         11.1         6.8         22.9         11.3         57 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1,819</td></td<>												1,819
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Rural	16.6	12.4	14.6	8.7	33.5	3.7	11.7	26.0	25.1	11.5	10,855
Hill       18.5       14.0       16.5       10.1       38.9       3.9       11.7       22.7       21.9       10.5       5.090         Terai       14.7       11.4       11.6       6.9       29.3       3.5       14.1       32.6       32.9       15.1       6.075         evelopment region       Eastern       18.0       14.6       16.3       7.6       41.9       5.1       16.6       33.1       34.0       15.6       3.057         Central       12.9       10.4       10.8       5.1       25.7       3.1       12.5       26.9       27.8       12.2       2.2.3       2.2.5       2.2.6       2.7.8       12.2       2.2.2       4.2.3       2.660         Mid-western       18.2       12.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       1.2.4       2.660         Mid-western       18.2       12.8       12.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       1.2.4       2.0       1.2.8       10.3       12.2       11.1       6.8       2.2       11.1       6.8       2.5       1.6.7       11.3       5.7       4.9       31	cological zone											
Teriai       14.7       11.4       11.6       6.9       29.3       3.5       14.1       32.6       32.9       15.1       6,775         evelopment region         Eastern       12.9       10.4       10.8       5.1       25.7       3.1       12.5       26.9       27.8       12.2       42.32         Western       17.9       13.0       14.3       11.4       37.1       3.2       12.1       30.1       27.1       14.9       26.6         Midwestern       18.2       12.8       15.1       12.8       33.6       4.4       11.6       21.0       20.3       10.0       1.472         Midwestern       23.4       15.8       21.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       1.472         Gentral mountain       32.0       19.5       29.5       9.4       55.3       6.8       10.3       12.2       11.1       6.8       22.2         Central mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.0       11.8       25.8         Central mill       19.0       15.7       14.3       6.8												
evelopment region           Eastern         18.0         14.6         16.3         7.6         41.9         5.1         16.6         33.1         34.0         15.6         3.02           Western         17.9         13.0         14.3         11.4         37.1         3.2         12.1         30.1         27.1         14.9         2.660           Mid-western         18.2         12.8         15.1         12.8         33.6         4.1         8.5         17.8         16.0         7.3         14.77           Far-western         23.4         15.8         21.8         10.2         33.5         4.4         11.6         21.0         20.3         10.0         12.42           Ubregion         Eastern mountain         20.0         19.5         29.5         9.4         55.3         6.8         10.3         12.2         11.1         6.8         222           Central hill         19.0         15.7         14.3         6.8         35.9         4.8         17.6         34.5         6.5         18.2         15.6           Western nhill         10.0         17.0         37.3         4.6         7.5         14.7         12.2         5.4												
Easterin       18.0       14.6       16.3       7.6       41.9       5.1       16.6       33.1       34.0       15.6       30.07         Western       17.9       13.0       14.3       11.4       37.1       3.2       12.1       30.1       27.1       14.9       266.9         Mid-western       18.2       12.8       15.1       12.8       33.6       4.1       8.5       17.8       16.0       7.3       1.476         Far-western       23.4       15.8       21.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       12.44         ubregion       Eastern mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       225         Central mountain       21.9       12.1       25.0       11.5       23.9       4.8       6.7       11.3       5.7       4.9       31         Central mountain       21.9       12.1       25.0       11.5       23.9       4.8       6.7       11.3       5.7       4.9       31         Western mill       18.6       13.4       15.9       7.5       36.6       3.4	Terai	14.7	11.4	11.6	6.9	29.3	3.5	14.1	32.6	32.9	15.1	6,779
Central       12.9       10.4       10.8       5.1       25.7       3.1       12.5       26.9       27.8       12.2       4236         Western       17.9       13.0       14.3       11.4       37.1       3.2       12.1       30.1       27.1       14.9       2666         Far-western       23.4       15.8       21.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       12.44         Bastern mountain       23.0       19.5       29.5       9.4       55.3       6.8       10.3       12.2       11.1       6.8       226         Central mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       256         Western mountain       15.2       12.0       17.9       7.2       48.6       3.4       10.8       19.2       18.4       6.7       956         Central hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1.56         Western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5												
Western       17.9       13.0       14.3       11.4       37.1       3.2       12.1       30.1       27.1       14.9       2.66C         Mid-western       18.2       12.8       15.1       12.8       33.6       4.1       8.5       17.8       16.0       7.3       14.9       2.66C         Mid-western       23.4       15.8       21.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       1.242         Upregion       Eastern mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       256         Central mountain       21.9       12.1       25.0       11.5       23.9       4.8       6.7       11.3       5.7       4.9       315         Eastern Mill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1.562         Mid-western hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1.562         Mid-western hill       20.4       13.1       22.1       8.3 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
Mid-western       18.2       12.8       15.1       12.8       33.6       4.1       8.5       17.8       16.0       7.3       147E         Far-western       23.4       15.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       1.47E         Werstern       0.01       15.7       29.5       9.4       55.3       6.8       10.3       12.2       11.1       6.8       225         Central mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       256         Western mountain       20.8       19.0       20.7       9.5       23.9       4.8       6.7       11.3       5.7       4.9       315         Eastern hill       15.2       12.0       17.9       7.2       48.6       3.4       10.8       19.2       18.4       6.7       4.6       3.6       18.2       1.563         Western hill       18.0       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       400         Central hill       20.7       15.0       15.0       17.7       9.1       1.51												
Far-western       23.4       15.8       21.8       10.2       33.5       4.4       11.6       21.0       20.3       10.0       1,242         ubregion       Eastern mountain       20.0       19.5       29.5       9.4       55.3       6.8       10.3       12.2       11.1       6.8       225         Central mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       255         Gentral mountain       21.9       12.1       25.0       11.5       23.9       4.8       6.7       11.3       5.7       4.9       315         Central hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1,50         Mid-western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       64.9         Gentral terai       17.8       15.3       13.9       7.5       36.8       5.0       34.6       7.5       14.7       12.2       5.4       64.9         Gentral terai       17.0       11.1       12.6       9.2 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>												
Ubregion         Eastern mountain         32.0         19.5         29.5         9.4         55.3         6.8         10.3         12.2         11.1         6.8         225           Central mountain         21.9         12.1         25.0         11.5         23.9         4.8         6.7         11.3         5.7         4.9         315           Vestern mountain         19.0         15.7         14.3         6.8         35.9         4.8         6.7         11.3         5.7         4.9         315           Central hull         19.0         15.7         14.3         6.8         35.9         4.8         17.6         34.4         6.7         956           Western hill         18.6         13.4         15.9         13.0         40.2         3.1         9.7         20.5         17.7         9.1         1,513           Gentral hull         20.7         15.0         18.0         17.0         37.3         4.6         7.5         14.7         12.2         1.8         4.8         400           Gentral hull         20.4         13.1         22.1         8.3         29.3         3.8         5.1         6.6         4.6         3.8         400												
Eastern mountain       32.0       19.5       29.5       9.4       55.3       6.8       10.3       12.2       11.1       6.8       222         Central mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       256         Wester mountain       21.9       12.1       25.0       11.5       23.9       4.8       6.7       11.3       5.7       4.9       315         Central hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1.56         Western hill       18.6       13.4       15.9       13.0       40.2       3.1       9.7       20.5       17.7       9.1       1.513         Mid-western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       644       400         Eastern trai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1.873         Western trai       17.1       12.6       12.3       9.3       32.9       3.3 <td>Far-western</td> <td>23.4</td> <td>15.8</td> <td>21.8</td> <td>10.2</td> <td>33.5</td> <td>4.4</td> <td>11.6</td> <td>21.0</td> <td>20.3</td> <td>10.0</td> <td>1,242</td>	Far-western	23.4	15.8	21.8	10.2	33.5	4.4	11.6	21.0	20.3	10.0	1,242
Central mountain       20.8       19.0       20.7       9.5       39.7       7.2       12.9       21.2       16.9       11.8       256         Western mountain       21.9       12.1       25.0       11.5       23.9       4.8       6.7       11.3       5.7       4.9       315         Eastern hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1.563         Western hill       18.6       13.4       15.9       13.0       40.2       3.1       9.7       20.5       17.7       9.1       1.513         Gentral hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       648         Far-western hill       20.4       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       400         Gentral terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       2.445         Western terai       17.1       12.6       12.3       9.3       32.9       3.3       15.3	Subregion		10 5	00 F				40.0	10.0			
Western mountain $21.9$ $12.1$ $25.0$ $11.5$ $23.9$ $4.8$ $6.7$ $11.3$ $5.7$ $4.9$ $312$ Eastern hill $15.2$ $12.0$ $17.9$ $7.2$ $48.6$ $3.4$ $10.8$ $19.2$ $18.4$ $6.7$ $956$ Central hill $19.0$ $15.7$ $14.3$ $6.8$ $35.9$ $4.8$ $17.6$ $34.5$ $36.5$ $18.2$ $1,562$ Western hill $18.6$ $13.4$ $15.9$ $13.0$ $40.2$ $3.1$ $9.7$ $20.5$ $17.7$ $9.1$ $1,513$ Mid-western hill $20.7$ $15.0$ $18.0$ $17.0$ $37.3$ $4.6$ $7.5$ $14.7$ $12.2$ $5.4$ $646$ Far-western hill $20.7$ $15.3$ $13.9$ $7.5$ $36.8$ $5.8$ $20.3$ $42.8$ $44.8$ $21.2$ $1.8^{-2}$ Central terai $8.2$ $6.1$ $7.4$ $3.5$ $17.7$ $1.6$ $9.2$ $22.7$ $23.3$ $8.5$ $24.45$ Western terai $17.1$ $12.6$ $12.3$ $9.3$ $32.9$ $3.3$ $15.3$ $42.9$ $39.5$ $22.5$ $1.14^{-2}$ Mid-western terai $17.0$ $11.1$ $12.6$ $9.2$ $34.1$ $3.3$ $10.4$ $21.9$ $32.5$ $3.8$ $5.1$ $66$ Central terai $7.2$ $3.8$ $6.1$ $14.0$ $2.0$ $4.7$ $11.3$ $11.7$ $5.4$ $5.6$ Far-western terai $17.0$ $11.1$ $12.6$ $9.2$ $5.6$												
Eastern hill       15.2       12.0       17.9       7.2       48.6       3.4       10.8       19.2       18.4       6.7       956         Central hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1,563         Western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       648         Far-western hill       20.4       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       402         Eastern terai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1.87         Western terai       17.1       12.6       12.3       9.3       32.9       3.3       15.3       42.9       39.5       22.5       1.147         Mid-western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       666         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1 </td <td></td>												
Central hill       19.0       15.7       14.3       6.8       35.9       4.8       17.6       34.5       36.5       18.2       1,563         Western hill       18.6       13.4       15.9       13.0       40.2       3.1       9.7       20.5       17.7       9.1       1,563         Mid-western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       643         Far-western hill       20.4       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       402         Eastern terai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1,873         Central terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       26.5       14.4         Western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       566         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1 <td></td>												
Western hill       18.6       13.4       15.9       13.0       40.2       3.1       9.7       20.5       17.7       9.1       15.13         Mid-western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       646         Far-western hill       20.4       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       400         Eastern terai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1.873         Central terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       2.445         Western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       666         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1       32.6       33.8       15.1       676         ducation       9.2       5.9       8.0       4.6       14.0       2.0       4.7 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
Mid-western hill       20.7       15.0       18.0       17.0       37.3       4.6       7.5       14.7       12.2       5.4       649         Far-western hill       20.4       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       4.6         Eastern terai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1.873         Central terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       2.445         Western terai       17.1       12.6       12.3       9.3       32.9       3.3       10.4       21.9       91.5       9.5       666         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1       32.6       33.8       15.1       676         ducation       9.2       5.9       8.0       4.6       14.0       2.0       4.7       11.3       11.7       5.4       5.04         Suc cand above       28.9       22.9       23.0       12.1       50.5       5.4       17.3												
Far-western hill       20.4       13.1       22.1       8.3       25.3       3.8       5.1       6.6       4.6       3.8       4.0         Eastern terai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1,873         Central terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       24.45         Western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       668         Far-western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       668         ducation       9.2       5.9       8.0       18.2       11.0       39.1       4.7       16.1       32.6       33.8       15.1       676         ducation       9.2       5.9       8.0       4.6       14.0       2.0       4.7       11.3       11.7       5.4       5.0         Stome secondary       22.3       18.0       19.0       12.1       50.5       5.4       17.3 <td></td>												
Eastern terai       17.8       15.3       13.9       7.5       36.8       5.8       20.3       42.8       44.8       21.2       1,873         Central terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       2.415         Western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       666         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1       32.6       33.8       15.1       676         ducation       No       education       9.2       5.9       8.0       4.6       14.0       2.0       4.7       11.3       11.7       5.4       5.045         Primary       14.0       10.6       13.7       7.7       30.9       3.5       10.1       23.6       23.6       9.9       2.209         Some secondary       22.3       18.0       19.0       12.1       50.5       5.4       17.3       39.3       36.4       17.2       3.088         SLC and above       28.9       22.9       23.0       12.5       56.6												
Central terai       8.2       6.1       7.4       3.5       17.7       1.6       9.2       22.7       23.3       8.5       2.415         Western terai       17.1       12.6       12.3       9.3       32.9       3.3       15.3       42.9       39.5       22.5       1,147         Mid-western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       666         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1       32.6       33.8       15.1       676         ducation       9.2       5.9       8.0       4.6       14.0       2.0       4.7       11.3       11.7       5.4       5.0       606         Primary       14.0       10.6       13.7       7.7       30.9       3.5       10.1       23.6       23.6       9.9       2.0       2.9       2.0       2.9       2.0       2.9       2.0       2.1       2.6       2.1       3.6       4.17.2       3.08       3.5       2.1       3.6       4.4       17.2       3.08       3.5       2.1       3.6       3.1       17.2												
Western terai       17.1       12.6       12.3       9.3       32.9       3.3       15.3       42.9       39.5       22.5       1,147         Mid-western terai       17.0       11.1       12.6       9.2       34.1       3.3       10.4       21.9       21.5       9.5       666         Far-western terai       23.4       18.0       18.2       11.0       39.1       4.7       16.1       32.6       33.8       15.1       676         ducation       9.2       5.9       8.0       4.6       14.0       2.0       4.7       11.3       11.7       5.4       5.045         Primary       14.0       10.6       13.7       7.7       30.9       3.5       10.1       23.6       23.6       9.9       2.205         Some secondary       22.3       18.0       19.0       12.1       50.5       5.4       17.3       39.3       36.4       17.2       3.085         SLC and above       28.9       22.9       23.0       12.5       56.6       6.2       27.4       50.5       51.1       25.9       2.301         Veath quintile       Lowest       11.7       8.2       11.5       6.7       24.1       2.5 <td></td>												
Mid-western terai         17.0         11.1         12.6         9.2         34.1         3.3         10.4         21.9         21.5         9.5         666           Far-western terai         23.4         18.0         18.2         11.0         39.1         4.7         16.1         32.6         33.8         15.1         666           ducation         No education         9.2         5.9         8.0         4.6         14.0         2.0         4.7         11.3         11.7         5.4         5.045           Primary         14.0         10.6         13.7         7.7         30.9         3.5         10.1         23.6         23.6         9.9         2.209           Some secondary         22.3         18.0         19.0         12.1         50.5         5.4         17.3         39.3         36.4         17.2         3.088           SLC and above         28.9         22.9         23.0         12.5         56.6         6.2         27.4         50.5         51.1         25.9         2.331           Vealth quintile         Lowest         11.7         8.2         11.5         6.7         24.1         2.5         2.1         3.6         3.1         1.3												
Far-western terai         23.4         18.0         18.2         11.0         39.1         4.7         16.1         32.6         33.8         15.1         676           ducation         9.2         5.9         8.0         4.6         14.0         2.0         4.7         11.3         11.7         5.4         5.9           Primary         14.0         10.6         13.7         7.7         30.9         3.5         10.1         23.6         23.6         9.9         2.20         2.00         2.21         23.6         23.6         9.9         2.20         2.00         12.1         50.5         5.4         17.3         39.3         36.4         17.2         3.08         SLC and above         28.9         22.9         23.0         12.5         56.6         6.2         27.4         50.5         51.1         25.9         2.31           Vealth quintile         Lowest         11.7         8.2         11.5         6.7         24.1         2.5         2.1         3.6         3.1         1.3         2.120         2.30           Vealth quintile         Lowest         11.7         8.2         11.5         6.7         24.1         2.5         2.1         3.6         3.1 </td <td></td>												
ducationNo education9.25.98.04.614.02.04.711.311.75.45.045Primary14.010.613.77.730.93.510.123.623.69.92.205Some secondary22.318.019.012.150.55.417.339.336.417.23.086SLC and above28.922.923.012.556.66.227.450.551.125.92.331Veath quintileLowest11.78.211.56.724.12.52.13.63.11.32.120Second15.010.513.97.731.43.14.79.89.33.52.303Middle15.111.313.98.131.72.88.921.420.99.22.600Fourth19.215.516.79.639.75.119.344.841.718.52.722Highest21.516.815.49.338.85.325.249.051.627.02.830												
No education         9.2         5.9         8.0         4.6         14.0         2.0         4.7         11.3         11.7         5.4         5.045           Primary         14.0         10.6         13.7         7.7         30.9         3.5         10.1         23.6         23.6         9.9         2.208           Some secondary         22.3         18.0         19.0         12.1         50.5         5.4         17.3         39.3         36.4         17.2         3.088           SLC and above         28.9         22.9         23.0         12.5         56.6         6.2         27.4         50.5         51.1         25.9         2.331           Veath quintile         Lowest         11.7         8.2         11.5         6.7         24.1         2.5         2.1         3.6         3.1         1.3         2.125           Second         15.0         10.5         13.9         7.7         31.4         3.1         4.7         9.8         9.3         3.5         2.300           Fourth         19.2         15.5         16.7         9.6         39.7         5.1         19.3         44.8         41.7         18.5         2.722         2.600												2.0
Primary       14.0       10.6       13.7       7.7       30.9       3.5       10.1       23.6       23.6       9.9       2.205         Some secondary       22.3       18.0       19.0       12.1       50.5       5.4       17.3       39.3       36.4       17.2       3.085         SLC and above       28.9       22.9       23.0       12.5       56.6       6.2       27.4       50.5       51.1       25.9       23.0         Veath quintile          6.7       24.1       2.5       2.1       3.6       3.1       1.3       2,120         Second       15.0       10.5       13.9       7.7       31.4       3.1       4.7       9.8       9.3       3.5       2,300         Middle       15.1       11.3       13.9       8.1       31.7       2.8       8.9       21.4       20.9       9.2       2,600         Fourth       19.2       15.5       16.7       9.6       39.7       5.1       19.3       44.8       41.7       18.5       2.720       2,830         Highest       21.5       16.8       15.4       9.3       38.8       5.3       25.2       49.0		9.2	59	8.0	4.6	14.0	2.0	47	11 3	117	54	5 045
Some secondary         22.3         18.0         19.0         12.1         50.5         5.4         17.3         39.3         36.4         17.2         3.086           SLC and above         28.9         22.9         23.0         12.5         56.6         6.2         27.4         50.5         51.1         25.9         23.3           Vealth quintile         Lowest         11.7         8.2         11.5         6.7         24.1         2.5         2.1         3.6         3.1         1.3         2,120           Second         15.0         10.5         13.9         7.7         31.4         3.1         4.7         9.8         9.3         3.5         2,393           Middle         15.1         11.3         13.9         8.1         31.7         2.8         8.9         21.4         20.9         9.2         2,600           Fourth         19.2         15.5         16.7         9.6         39.7         5.1         19.3         44.8         41.7         18.5         2,722           Highest         21.5         16.8         15.4         9.3         38.8         5.3         25.2         49.0         51.6         27.0         2,836												
SLC and above       28.9       22.9       23.0       12.5       56.6       6.2       27.4       50.5       51.1       25.9       2,331         Vealth quintile       Lowest       11.7       8.2       11.5       6.7       24.1       2.5       2.1       3.6       3.1       1.3       2,120         Second       15.0       10.5       13.9       7.7       31.4       3.1       4.7       9.8       9.3       3.5       2,330         Widdle       15.1       11.3       13.9       8.1       31.7       2.8       8.9       21.4       20.9       9.2       2,600         Fourth       19.2       15.5       16.7       9.6       39.7       5.1       19.3       44.8       41.7       18.5       2,722         Highest       21.5       16.8       15.4       9.3       38.8       5.3       25.2       49.0       51.6       27.0       2,836												
Lowest11.78.211.56.724.12.52.13.63.11.32.120Second15.010.513.97.731.43.14.79.89.33.52.300Middle15.111.313.98.131.72.88.921.420.99.22.600Fourth19.215.516.79.639.75.119.344.841.718.52.722Highest21.516.815.49.338.85.325.249.051.627.02.836												2,331
Lowest11.78.211.56.724.12.52.13.63.11.32.120Second15.010.513.97.731.43.14.79.89.33.52.300Middle15.111.313.98.131.72.88.921.420.99.22.600Fourth19.215.516.79.639.75.119.344.841.718.52.722Highest21.516.815.49.338.85.325.249.051.627.02.836	/ealth quintile											
Second         15.0         10.5         13.9         7.7         31.4         3.1         4.7         9.8         9.3         3.5         2.393           Middle         15.1         11.3         13.9         8.1         31.7         2.8         8.9         21.4         20.9         9.2         2.600           Fourth         19.2         15.5         16.7         9.6         39.7         5.1         19.3         44.8         41.7         18.5         2.722           Highest         21.5         16.8         15.4         9.3         38.8         5.3         25.2         49.0         51.6         27.0         2.839		11.7	8.2	11.5	6.7	24.1	2.5	2.1	3.6	3.1	1.3	2,120
Middle         15.1         11.3         13.9         8.1         31.7         2.8         8.9         21.4         20.9         9.2         2,600           Fourth         19.2         15.5         16.7         9.6         39.7         5.1         19.3         44.8         41.7         18.5         2,722           Highest         21.5         16.8         15.4         9.3         38.8         5.3         25.2         49.0         51.6         27.0         2,835												
Fourth         19.2         15.5         16.7         9.6         39.7         5.1         19.3         44.8         41.7         18.5         2,722           Highest         21.5         16.8         15.4         9.3         38.8         5.3         25.2         49.0         51.6         27.0         2,836												
Highest         21.5         16.8         15.4         9.3         38.8         5.3         25.2         49.0         51.6         27.0         2,839												
	÷											12,674

SLC = School Leaving Certificate

#### Table 3.6.2 Exposure to specific health programs on radio and television: Men

Percentage of men age 15-49 who have heard or seen specific health programs on the radio and television, according to background characteristics, Nepal 2011

Background characteristic	Jana swasthya radio karyakram	Janasankhya chetanaka swore haru radio karyakram	Hamro swastha radio karyakram	Ama radio karyakram	Sathi sanga manka kura radio karyakram	Jeevan jyoti radio karyakram	Hamro swastha TV karyakram	Jeevan chakra TV karyakram	Thorai bhaye pugi sari TV karyakram	Ama TV karyakram	Number of men
Age											
15-19	28.4	20.9	21.5	14.7	58.5	5.3	17.5	40.5	34.3	21.0	978
20-24	31.5	21.5	26.6	11.6	60.1	8.0	20.6	35.3	38.9	20.1	685
25-29	25.0	15.8	18.4	8.9	44.9	6.7	15.5	26.0	29.9	13.2	581
30-34	27.2	20.9	16.7	11.2	37.5	7.9	19.9	28.5	29.2	15.4	499
35-39	31.5	21.0	19.3	14.2	33.2	8.6	24.7	28.0	33.6	20.6	542
40-44	31.3	20.7	22.4	16.0	30.2	7.3	17.0	20.3	26.3	13.9	438
45-49	26.8	21.3	27.8	13.3	30.6	4.6	19.5	24.2	30.6	18.9	399
Residence											
Urban	28.7	21.4	21.8	10.5	45.6	7.0	27.4	37.8	46.3	25.3	717
Rural	28.9	20.1	21.7	13.4	45.2	6.8	17.4	29.3	29.6	16.5	3,404
Ecological zone											
Mountain	36.8	23.0	31.3	18.4	47.6	10.0	11.9	14.5	11.3	7.0	245
Hill	32.3	21.4	24.7	15.5	52.7	6.7	17.5	27.7	31.4	19.7	1,658
Terai	25.4	19.2	18.4	10.3	39.4	6.6	21.2	34.9	35.7	18.1	2,218
Development region											
Eastern	27.5	22.0	19.5	9.8	49.3	8.8	19.9	35.4	36.9	16.2	996
Central	29.3	20.2	20.3	10.5	44.2	7.3	20.4	32.2	38.4	21.1	1,448
Western	26.9	18.1	20.8	15.9	46.0	4.0	21.2	32.5	31.7	24.5	798
Mid-western	33.2	17.8	28.8	19.6	44.2	7.5	15.5	21.1	17.9	8.9	493
Far-western	29.0	24.2	25.7	14.9	38.9	4.7	12.6	22.1	19.7	9.8	385
Subregion											
Eastern mountain	23.2	16.7	18.8	7.1	56.0	8.1	5.5	11.8	12.7	8.8	66
Central mountain	31.7	24.1	26.5	10.9	51.1	9.6	15.1	19.0	18.3	10.7	69
Western mountain	48.2	26.1	41.7	29.8	40.4	11.5	13.8	13.3	6.0	3.7	110
Eastern hill	33.4	23.8	21.8	9.4	62.3	11.2	14.0	23.8	29.9	12.7	293
Central hill	30.8	19.8	20.9	9.7	48.1	6.7	20.8	33.5	43.7	23.5	616
Western hill	31.0	23.5	26.6	21.9	56.5	3.6	21.1	31.2	30.3	26.8	440
Mid-western hill	39.8	17.5	38.1	28.8	52.2	8.2	11.3	17.2	12.9	10.5	189
Far-western hill	30.7	21.5	24.0	16.0	40.2	4.5	5.6	10.8	5.0	4.9	120
Eastern terai	25.3	21.7	18.6	10.2	42.6	7.9	24.1	43.2	42.6	18.6	638
Central terai	27.9	20.1	19.3	11.2	40.4	7.6	20.6	32.3	35.9	20.1	763
Western terai	21.8	11.5	13.7	8.6	33.0	4.6	21.4	34.1	33.3	21.6	358
Mid-western terai Far-western terai	25.5 22.4	18.4 22.4	18.4 22.8	10.1 10.6	39.2 37.4	5.6 3.7	18.7 17.0	25.7 30.9	25.1 30.5	9.3 13.5	242 217
	22.4	22.4	22.0	10.0	07.4	0.7	11.0	00.0	00.0	10.0	217
Education	16.9	10.4	12.7	9.5	19.0	4.5	3.0	6.6	6.5	2.4	567
No education Primary	16.8 21.6	10.4 16.2	13.7 18.2	8.5 10.3	18.9 31.3	4.5 5.8	3.0 10.1	6.6 19.1	6.5 20.9	2.4 9.3	567 814
	21.6	20.9	23.7	10.3	52.4	5.8 8.4	19.0	34.0	20.9 33.1	9.3 17.5	1,437
Some secondary SLC and above	28.4 39.1	20.9	23.7 25.4	16.2	52.4 57.6	6.8	31.9	34.0 45.0	50.4	30.9	1,437
Wealth quintile											
Lowest	25.2	16.6	20.4	12.2	33.5	7.1	2.7	4.2	4.1	2.6	610
Second	23.5	15.7	18.2	11.2	45.2	5.7	6.6	15.1	13.5	6.8	695
Middle	31.5	22.8	26.7	14.2	44.1	5.7	16.6	24.8	24.0	12.0	830
Fourth	32.9	23.2	25.4	16.4	52.8	10.1	27.3	48.4	50.3	25.8	920
Highest	28.8	21.0	17.8	10.3	46.5	5.5	31.6	45.6	52.5	32.3	1,066
Total 15-49	28.8	20.3	21.7	12.9	45.3	6.8	19.1	30.8	32.5	18.1	4,121

About one in three (34 percent) women and 45 percent of men age 15-49 listened to *Sathi sanga manka kura*, which is the most popular radio program among women and men in Nepal, especially the younger generation. There is minimal urban-rural variation in women and men listening to this program. The next most popular radio program among women and men is *Jana swasthya radio karyakram* (17 percent and 29 percent, respectively). Among the four TV programs, *Thorai bhaye pugi sari* and *Jeevan chakra* are the most popular. Young women and men are more likely to view television programs than older women and men.

Overall, urban women are slightly more likely than rural women to access both radio and television programs. Urban women more often listen to *Jana swastha radio karyakram* (19 percent versus 17 percent) and *Janasankhaya chetanaka swore haru radio karyakram* (15 percent versus 12 percent).

Not surprisingly, respondents' level of education and economic status are directly associated with their exposure to specific health programs. Respondents who are highly educated and come from the wealthiest households are more likely to have heard or seen these programs than their counterparts in the other education and wealth categories.

### 3.4.2 Preferred Media Source for Health-Related Programs

In 2011 the NDHS, for the first time, collected information on the media source preferred by women and men for receiving health-related information. This information, important for targeting health-related messages more effectively, is presented in Tables 3.7.1 and 3.7.2.

characteristic         Radio Nepal         FM station         Television         magazine         Poster         billboard         Other         Total         wom           Age         15-19         13.6         39.3         40.9         4.2         0.8         0.1         1.0         100.0         2.72           20-24         15.0         36.8         44.1         2.4         0.5         0.3         0.8         100.0         2.72           30-34         14.6         35.3         46.7         1.5         0.7         0.0         1.2         100.0         1.73           35-39         15.2         34.6         45.7         1.5         0.4         0.0         1.2         100.0         1.28           45-49         17.8         31.0         46.0         0.3         2.5         0.2         2.1         100.0         1.88           Reidence         Uhan         13.1         21.1         58.6         5.4         0.4         0.2         1.1         100.0         10.85           Bourdal         15.0         38.1         42.6         1.7         1.1         0.1         1.5         0.0         1.20         100.0         5.05	2011	r women with p	referred med	ia source to r	eceive health-re	elated inform	nation, accordir	ng to backgro	bund charact	eristics, Nep
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Radio Nepal	FM station	Television		Poster		Other	Total	Number o women
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Age									
25-29       14.1       35.0       46.2       2.3       1.0       0.1       1.1       100.0       21.7         35-39       15.2       34.6       45.7       1.5       1.4       0.0       1.5       100.0       1.75         35-39       15.2       34.6       45.7       1.5       1.4       0.0       1.2       100.0       1.22         45-49       17.8       31.0       46.0       0.3       2.5       0.2       2.1       100.0       1.22         45-49       17.8       31.0       46.0       0.3       2.5       0.2       2.1       100.0       1.22         Urban       13.1       21.1       58.6       5.4       0.4       0.2       1.1       100.0       10.83         Rural       15.0       38.1       42.6       1.7       1.1       0.1       1.3       100.0       10.65         Hill       18.8       35.9       40.2       2.8       1.0       0.1       1.5       100.0       6.77         Development region       Eastern       1.1       100.0       45.2       5.0       3.2.4       0.6       0.1       2.0       100.0       4.22         West	15-19	13.6	39.3	40.9	4.2	0.8	0.1	1.0	100.0	2,753
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20-24	15.0	36.8	44.1	2.4	0.5	0.3	0.8	100.0	2,297
35-39       15.2       34.6       45.7       1.5       1.4       0.0       1.5       100.0       1.5         45-49       17.8       31.0       46.0       0.3       2.5       0.2       2.1       100.0       1.22         45-49       17.8       31.0       46.0       0.3       2.5       0.2       2.1       100.0       1.28         Residence       Urban       13.1       21.1       58.6       5.4       0.4       0.2       1.1       100.0       100.0       1.08         Ecological zone         Mountain       18.1       41.9       35.6       1.3       2.1       0.0       1.0       100.0       50.6         Ferai       11.2       36.7       46.1       2.7       1.2       0.3       0.8       100.0       4.22         Westerm       12.1       36.7       46.1       2.7       1.2       0.3       0.8       100.0       4.22         Westerm       9.4       36.2       50.3       2.1       0.8       1.3       100.0       1.42         Westerm       9.4       36.2       51.2       1.4       0.1       1.1       100.0       1.22	25-29	14.1	35.0	46.2	2.3	1.0	0.1	1.1	100.0	2,101
40-44       14.8       32.2       48.3       0.7       1.5       0.0       2.2       100.0       1/24         45-49       17.8       31.0       46.0       0.3       2.5       0.2       2.1       100.0       1/24         Residence       Uban       13.1       21.1       58.6       5.4       0.4       0.2       1.1       100.0       1.84         Rural       15.0       38.1       42.6       1.7       1.1       0.1       1.3       100.0       1.85         Ecological zone	30-34	14.6	35.3	46.7	1.5			1.2	100.0	1,734
45-49       17.8       31.0       46.0       0.3       2.5       0.2       2.1       100.0       94         Residence         Urban       13.1       21.1       58.6       5.4       0.4       0.2       1.1       100.0       108         Rural       15.0       38.1       42.6       1.7       1.1       0.1       1.3       100.0       10.85         Ecological zone         Mountain       18.1       41.9       35.6       1.3       2.1       0.0       1.0       100.0       60.6         Terai       11.2       34.8       49.5       1.9       1.0       0.1       1.5       100.0       6.77         Ocentral       10.6       35.8       48.5       2.4       0.6       0.1       2.0       100.0       4.20         Western       9.4       36.2       50.3       2.1       0.8       0.0       1.3       100.0       1.42         Subregion       Eastern       2.1       1.4       0.0       0.7       100.0       22         Central hill       20.0       2.3       51.3       4.6       0.4       0.2       0.8       100.	35-39						0.0			1,557
Residence         Urban         13.1         21.1         58.6         5.4         0.4         0.2         1.1         100.0         1.81           Rural         15.0         38.1         42.6         1.7         1.1         0.1         1.3         100.0         1.88           Ecological zone <t< td=""><td>40-44</td><td>14.8</td><td>32.2</td><td>48.3</td><td>0.7</td><td>1.5</td><td>0.0</td><td>2.2</td><td>100.0</td><td>1,285</td></t<>	40-44	14.8	32.2	48.3	0.7	1.5	0.0	2.2	100.0	1,285
Urban         13.1         21.1         58.6         5.4         0.4         0.2         1.1         100.0         1.81           Rural         15.0         38.1         42.6         1.7         1.1         0.1         1.3         100.0         1.81           Scological zone                  Mountain         18.1         41.9         35.6         1.3         2.1         0.0         1.0         1.1         100.0         5.0           Terai         11.2         34.8         49.5         1.9         1.0         0.1         1.5         100.0         6.77           Development region         Eastern         12.1         36.7         46.1         2.7         1.2         0.3         0.8         100.0         4.37           Western         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         2.66           Mid-western         2.6.0         35.8         33.4         1.2         2.4         0.1         1.1         100.0         1.24           Vestern mountain         14.5         37.2         45.0	45-49	17.8	31.0	46.0	0.3	2.5	0.2	2.1	100.0	947
Rural         15.0         38.1         42.6         1.7         1.1         0.1         1.3         100.0         10,85           Ecological zone         Mountain         18.1         41.9         35.6         1.3         2.1         0.0         1.0         100.0         60           Hill         18.8         35.9         40.2         2.8         1.0         0.1         1.1         100.0         5.00           Terai         11.2         34.8         49.5         1.9         1.0         0.1         1.5         100.0         6.7           Development region         Eastern         12.1         36.7         46.1         2.7         1.2         0.3         0.8         100.0         4.22           Western         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         1.44           Far-western         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1.2           Vestern mountain         14.5         42.6         38.6         1.7         0.6         0.0         2.0         100.0         22           Western mountain         14.5 <td>Residence</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Residence									
Ecological zone         Mountain         18.1         41.9         35.6         1.3         2.1         0.0         1.0         100.0         86           Hill         18.8         35.9         40.2         2.8         1.0         0.1         1.1         100.0         6,00           Terai         11.2         34.8         49.5         1.9         1.0         0.1         1.5         100.0         6,77           Development region         Eastern         12.1         36.7         7.66.1         2.0         0.8         100.0         4,22           Western         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         2,47           Farwestern         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1,24           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Vester mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central huill         13.1	Urban	13.1	21.1	58.6	5.4	0.4	0.2	1.1	100.0	1,819
Mountain         18.1         41.9         35.6         1.3         2.1         0.0         1.0         100.0         86           Hill         18.8         35.9         40.2         2.8         1.0         0.1         1.1         100.0         5.00           Terai         11.2         34.8         49.5         1.9         1.0         0.1         1.1         100.0         5.00           Development region         Eastern         12.1         36.7         46.1         2.7         1.2         0.3         0.8         100.0         2.62           Central         10.6         35.8         48.2         50.3         2.1         0.8         0.0         1.3         100.0         2.64           Mid-western         26.0         35.8         33.4         1.2         2.4         0.1         1.1         100.0         1.24           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         1.6           Western munut	Rural	15.0	38.1	42.6	1.7	1.1	0.1	1.3	100.0	10,855
Hill         18.8         35.9         40.2         2.8         1.0         0.1         1.1         100.0         5.07           Terai         11.2         34.8         49.5         1.9         1.0         0.1         1.5         100.0         6,77           Development region         Eastern         12.1         36.7         46.1         2.7         1.2         0.3         0.8         100.0         4,23           Vestern         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         4,22           Mid-western         26.0         35.8         33.4         1.2         2.4         0.1         1.1         100.0         1,47           Farwestern         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1.2           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central mountain         23.6         45.1         25.8         1.1         0.0         1.5         100.0         1.5           Mid-western hill         35.4 <t< td=""><td>Ecological zone</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Ecological zone									
Hill       18.8       35.9       40.2       2.8       1.0       0.1       1.1       100.0       5.00         Terai       11.2       34.8       49.5       1.9       1.0       0.1       1.5       100.0       6,77         Development region       Eastern       12.1       36.7       46.1       2.7       1.2       0.3       0.8       100.0       4,02         Central       10.6       35.8       48.5       2.4       0.6       0.1       2.0       100.0       4,22         Western       9.4       36.2       50.3       2.1       0.8       0.0       1.3       100.0       1,47         Farwestern       33.1       31.8       31.8       1.7       1.1       0.0       0.5       100.0       1,22         Subregion       Eastern mountain       14.5       37.2       45.0       1.2       1.4       0.0       0.7       100.0       22         Western mountain       13.1       48.7       34.0       3.0       0.3       0.0       0.8       100.0       1.5         Gentral mountain       14.5       37.2       45.0       1.2       1.4       0.0       1.5       100.0       1.5		18.1	41.9	35.6	1.3	2.1	0.0	1.0	100.0	805
Terai         11.2         34.8         49.5         1.9         1.0         0.1         1.5         100.0         6,77           Development region         Eastern         12.1         36.7         46.1         2.7         1.2         0.3         0.8         100.0         4,73           Central         10.6         35.8         48.5         2.4         0.6         0.1         2.0         100.0         4,23           Western         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         2,46           Mid-western         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1,24           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central hill         20.0         22.3         51.3         4.6         0.4         0.2         0.8         100.0         165           Western hill <th< td=""><td>Hill</td><td>18.8</td><td>35.9</td><td>40.2</td><td>2.8</td><td>1.0</td><td>0.1</td><td>1.1</td><td>100.0</td><td>5,090</td></th<>	Hill	18.8	35.9	40.2	2.8	1.0	0.1	1.1	100.0	5,090
Eastern       12.1       36.7       46.1       2.7       1.2       0.3       0.8       100.0       3.00         Central       10.6       35.8       48.5       2.4       0.6       0.1       2.0       100.0       4.23         Western       9.4       36.2       50.3       2.1       0.8       0.0       1.3       100.0       2.66         Mid-western       26.0       35.8       33.4       1.2       2.4       0.1       1.1       100.0       1.47         Far-western       33.1       31.8       31.8       1.7       1.1       0.0       0.5       100.0       1.24         Subregion       Eastern mountain       14.5       37.2       45.0       1.2       1.4       0.0       0.7       100.0       22         Western hill       13.1       48.7       34.0       3.0       0.3       0.0       0.8       100.0       1.5         Western hill       23.6       45.1       25.8       1.1       3.7       0.0       0.5       100.0       1.6         Western hill       35.4       34.5       24.2       0.7       3.5       0.1       1.6       100.0       1.64	Terai	11.2	34.8	49.5	1.9	1.0	0.1		100.0	6,779
Central       10.6       35.8       48.5       2.4       0.6       0.1       2.0       100.0       4.23         Western       9.4       36.2       50.3       2.1       0.8       0.0       1.3       100.0       2,66         Mid-western       33.1       31.8       31.8       1.2       2.4       0.1       1.1       100.0       1,47         Far-western       33.1       31.8       31.8       1.7       1.1       0.0       0.5       100.0       1,24         Subregion       Eastern mountain       14.5       42.6       38.6       1.7       0.6       0.0       2.0       100.0       22         Central mountain       14.5       42.6       38.6       1.7       0.6       0.0       0.7       100.0       25         Western mountain       13.1       48.7       34.0       30       0.3       0.0       0.8       100.0       1,56         Central hill       20.0       22.3       51.3       4.6       0.4       0.2       0.8       100.0       1,56         Western hill       37.7       35.9       23.1       1.7       0.5       0.0       1.1       100.0       42	Development region	1								
Central         10.6         35.8         48.5         2.4         0.6         0.1         2.0         100.0         4.23           Western         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         2,66           Mid-western         33.1         31.8         31.8         1.2         2.4         0.1         1.1         100.0         1,47           Far-western         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1,24           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central mountain         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         1,55           Central hill         20.0         22.3         51.3         4.6         0.4         0.2         0.8         100.0         1,55           Western hill         8.9         42.6         44.2         0.7         3.5         0.1         1.6         100.0         64           Far-western hill         37.7 <t< td=""><td></td><td></td><td>36.7</td><td>46.1</td><td>2.7</td><td>1.2</td><td>0.3</td><td>0.8</td><td>100.0</td><td>3,057</td></t<>			36.7	46.1	2.7	1.2	0.3	0.8	100.0	3,057
Western         9.4         36.2         50.3         2.1         0.8         0.0         1.3         100.0         2,66           Mid-western         26.0         35.8         33.4         1.2         2.4         0.1         1.1         100.0         1,47           Far-western         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1,24           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Central mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         25           Western mountain         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         92           Central hill         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         1.56           Western hill         85.4         34.5         24.2         0.7         3.5         0.1         1.6         100.0         4.6           Far-western hill         37.7				48.5	2.4	0.6		2.0		4,236
Mid-western         26.0         35.8         33.4         1.2         2.4         0.1         1.1         100.0         1,47           Far-western         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1,24           Subregion         Eastern mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Western mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Western mountain         23.6         45.1         25.8         1.1         3.7         0.0         0.5         100.0         33           Eastern hill         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         46           Western hill         8.9         42.6         44.2         1.8         1.1         0.0         1.5         100.0         1.5           Mid-western hill         35.4         34.5         24.2         0.7         3.5         0.1         1.6         100.0         40           Earwestern hill         37.7										2,660
Far-western         33.1         31.8         31.8         1.7         1.1         0.0         0.5         100.0         1,24           Subregion         Eastern mountain         14.5         37.2         45.6         1.2         1.4         0.0         0.7         100.0         22           Central mountain         23.6         45.1         25.8         1.1         3.7         0.0         0.5         100.0         31           Eastern mountain         23.6         45.1         25.8         1.1         3.7         0.0         0.5         100.0         33           Central hill         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         95           Central hill         20.0         22.3         51.3         4.6         0.4         0.2         0.8         100.0         46           Western hill         8.9         42.6         44.2         1.8         1.1         0.0         1.5         100.0         1.66           Western terai         13.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         44           Mid-western hill         37.7										1,478
Eastern mountain         14.5         42.6         38.6         1.7         0.6         0.0         2.0         100.0         22           Central mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Western mountain         23.6         45.1         25.8         1.1         3.7         0.0         0.5         100.0         31           Eastern hill         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         1,5           Western hill         8.9         42.6         44.2         1.8         1.1         0.0         1.5         100.0         1,5           Mid-western hill         37.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         40           Far-western hill         37.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         4,6           Central terai         1.3         29.8         53.3         2.7         1.7         0.4         0.7         100.0         1,44           Mid-western terai         17.3         36.9 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1,242</td>										1,242
Eastern mountain         14.5         42.6         38.6         1.7         0.6         0.0         2.0         100.0         22           Central mountain         14.5         37.2         45.0         1.2         1.4         0.0         0.7         100.0         22           Western mountain         23.6         45.1         25.8         1.1         3.7         0.0         0.5         100.0         31           Eastern hill         13.1         48.7         34.0         3.0         0.3         0.0         0.8         100.0         1,5           Western hill         8.9         42.6         44.2         1.8         1.1         0.0         1.5         100.0         1,5           Mid-western hill         37.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         40           Far-western hill         37.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         4,6           Central terai         1.3         29.8         53.3         2.7         1.7         0.4         0.7         100.0         1,44           Mid-western terai         17.3         36.9 </td <td>Subregion</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Subregion									
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		14.5	42.6	38.6	1.7	0.6	0.0	2.0	100.0	229
Eastern hill       13.1       48.7       34.0       3.0       0.3       0.0       0.8       100.0       95         Central hill       20.0       22.3       51.3       4.6       0.4       0.2       0.8       100.0       1,55         Western hill       8.9       42.6       44.2       1.8       1.1       0.0       1.5       100.0       1,51         Mid-western hill       35.4       34.5       24.2       0.7       3.5       0.1       1.6       100.0       64         Far-western hill       37.7       35.9       23.1       1.7       0.5       0.0       1.1       100.0       40         Eastern terai       11.3       29.8       53.3       2.7       1.7       0.4       0.7       100.0       1,87         Western terai       10.1       27.7       58.3       2.5       0.4       0.0       1.0       100.0       1,14         Mid-western terai       17.3       36.9       43.0       1.7       0.4       0.1       0.6       100.0       66         Far-western terai       17.3       36.9       43.0       1.7       0.4       0.1       0.6       100.0       2,02 <tr< td=""><td>Central mountain</td><td>14.5</td><td>37.2</td><td>45.0</td><td>1.2</td><td>1.4</td><td>0.0</td><td>0.7</td><td>100.0</td><td>258</td></tr<>	Central mountain	14.5	37.2	45.0	1.2	1.4	0.0	0.7	100.0	258
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Western mountain	23.6	45.1	25.8	1.1	3.7	0.0	0.5	100.0	319
Western hill         8.9         42.6         44.2         1.8         1.1         0.0         1.5         100.0         1,51           Mid-western hill         35.4         34.5         24.2         0.7         3.5         0.1         1.6         100.0         64           Far-western hill         37.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         44           Eastern terai         11.3         29.8         53.3         2.7         1.7         0.4         0.7         100.0         1,87           Central terai         4.1         44.4         47.0         1.0         0.6         0.0         2.9         100.0         2,41           Western terai         10.1         27.7         58.3         2.5         0.4         0.0         1.0         100.0         1,44           Mid-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         6,64           Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         2,64           Primary         13.5         35.8	Eastern hill	13.1	48.7	34.0	3.0	0.3	0.0	0.8	100.0	956
Western hill         8.9         42.6         44.2         1.8         1.1         0.0         1.5         100.0         1,51           Mid-western hill         35.4         34.5         24.2         0.7         3.5         0.1         1.6         100.0         64           Far-western hill         37.7         35.9         23.1         1.7         0.5         0.0         1.1         100.0         44           Eastern terai         11.3         29.8         53.3         2.7         1.7         0.4         0.7         100.0         1,87           Central terai         4.1         44.4         47.0         1.0         0.6         0.0         2.9         100.0         2,41           Western terai         10.1         27.7         58.3         2.5         0.4         0.0         1.0         100.0         1,44           Mid-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         67           Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         5.04           Primary         13.5         35.8	Central hill	20.0	22.3	51.3	4.6	0.4	0.2	0.8	100.0	1,563
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$						1.1		1.5		1,513
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mid-western hill	35.4	34.5	24.2	0.7	3.5	0.1	1.6		649
Eastern terai         11.3         29.8         53.3         2.7         1.7         0.4         0.7         100.0         1,87           Central terai         4.1         44.4         47.0         1.0         0.6         0.0         2.9         100.0         2,41           Western terai         10.1         27.7         58.3         2.5         0.4         0.0         1.0         100.0         1,41           Mid-western terai         17.3         36.9         43.0         1.7         0.4         0.1         0.6         100.0         66           Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         67           Education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         2,03           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,12           Second         16.0         45.7         34										409
Central terai         4.1         44.4         47.0         1.0         0.6         0.0         2.9         100.0         2.41           Western terai         10.1         27.7         58.3         2.5         0.4         0.0         1.0         100.0         1,14           Mid-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         66           Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         67           Education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,20           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         3,20           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,32           Wealth quintile         Lowest         28.3										1,873
Western terai         10.1         27.7         58.3         2.5         0.4         0.0         1.0         100.0         1,14           Mid-western terai         17.3         36.9         43.0         1.7         0.4         0.1         0.6         100.0         66           Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         67           Education         S.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         5,04           No education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,22           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         2,33           Midt quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,33           Middle         9.9         4										2,415
Mid-western terai         17.3         36.9         43.0         1.7         0.4         0.1         0.6         100.0         66           Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         66           Education         No education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,20           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         2,20           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,33           Wealth quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,42           Second					2.5					1,147
Far-western terai         32.7         24.1         39.5         1.8         1.6         0.0         0.3         100.0         67           Education         No education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,20           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         2,33           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,33           Wealth quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,36           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,36           Fourth         10.7<										668
No education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,22           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         3,08           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,32           Wealth quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,32           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,32           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,36           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,42						1.6				676
No education         15.9         38.1         41.6         0.1         1.8         0.0         2.4         100.0         5,04           Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,22           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         3,08           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,33           Wealth quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,33           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.7         100.0         2,33           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,42	Education									
Primary         13.5         35.8         47.3         1.6         0.8         0.2         0.7         100.0         2,20           Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         3,06           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,32           Weath quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,32           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,36           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,72		15.9	38.1	41.6	0.1	1.8	0.0	2.4	100.0	5,045
Some secondary         13.6         36.4         45.5         3.6         0.4         0.1         0.5         100.0         3,08           SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,33           Wealth quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,33           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,12           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,62										2,209
SLC and above         14.6         29.7         49.0         5.5         0.4         0.3         0.7         100.0         2,33           Wealth quintile         Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,63           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,63           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,72										3.088
Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,32           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,66           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,72										2,331
Lowest         28.3         41.2         24.5         1.2         2.4         0.0         2.1         100.0         2,12           Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,32           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,66           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,72	Nealth quintile									
Second         16.0         45.7         34.1         1.2         1.2         0.0         1.7         100.0         2,39           Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,60           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,72		28.3	41 2	24.5	12	24	0.0	21	100.0	2.120
Middle         9.9         41.6         45.0         1.3         0.9         0.0         1.4         100.0         2,60           Fourth         10.7         32.7         53.1         1.7         0.7         0.2         0.8         100.0         2,72										2,393
Fourth 10.7 32.7 53.1 1.7 0.7 0.2 0.8 100.0 2,72										2,600
										2,000
										2,839
Fotal 15-49 14.7 35.7 44.9 2.2 1.0 0.1 1.3 100.0 12.67	0									12,674

SLC = School Leaving Certificate

Among the different types of electronic and print media, television is the most preferred source of information among women and men. Forty-five percent of women and 43 percent of men prefer television, while only 15 percent of women and men prefer Radio Nepal, a government-supported radio channel. Approximately one-third of women and men prefer FM radio stations for receiving health-related messages. While the preference for print media is negligible among women, 7 percent of men prefer newspapers and magazines over other sources.

#### Table 3.7.2 Preferred media source for health-related information: Men

Percent distribution of men with preferred media source to receive health-related information, according to background characteristics, Nepal 2011

Background characteristic	Radio Nepal	EM station	Television	Newspaper/ magazine	Poster	Hoarding/ billboard	Other	Total	Number o men
Characteristic		T IN Station	Television	magazine	1 03161	Diliboard	Outer	Total	men
Age									
15-19	12.0	33.2	46.0	6.3	0.3	0.3	2.0	100.0	978
20-24	15.7	32.5	40.2	10.3	0.1	0.1	1.1	100.0	685
25-29	16.7	33.8	41.1	7.2	0.5	0.1	0.5	100.0	581
30-34	12.9	34.7	44.5	7.4	0.0	0.0	0.4	100.0	499
35-39	14.6	31.8	45.3	7.3	0.5	0.0	0.4	100.0	542
40-44	19.4	31.6	42.1	6.1	0.2	0.4	0.2	100.0	438
45-49	18.1	35.2	41.2	3.9	0.8	0.0	0.4	100.0	399
Residence									
Urban	12.4	18.1	56.8	10.8	0.2	0.1	1.4	100.0	717
Rural	15.7	36.4	40.3	6.3	0.3	0.1	0.8	100.0	3,404
Ecological zone									
Mountain	21.3	43.4	31.2	2.9	0.2	0.0	0.8	100.0	245
Hill	13.9	36.0	41.4	7.1	0.2	0.3	1.0	100.0	1,658
Terai	15.3	30.0	45.8	7.6	0.4	0.0	0.9	100.0	2,218
					••••				_,_ · · ·
Development regior Eastern	10.9	33.7	44.6	9.4	0.6	0.2	0.6	100.0	996
Central	12.9	33.3	44.0	9.4 8.0	0.0	0.2	0.8	100.0	1.448
					0.2		0.8		
Western	10.8 30.9	30.6 34.8	51.9 28.7	5.6	0.0	0.2 0.2	0.9	100.0 100.0	798 493
Mid-western				4.3					
Far-western	23.0	34.9	34.1	4.6	0.8	0.3	2.3	100.0	385
Subregion									
Eastern mountain	6.7	57.8	31.4	3.0	0.0	0.0	1.2	100.0	66
Central mountain	19.4	28.7	44.8	5.4	0.8	0.0	0.2	100.0	69
Western mountain	31.2	44.0	22.5	1.4	0.0	0.0	0.9	100.0	110
Eastern hill	7.7	55.2	30.4	5.9	0.3	0.3	0.0	100.0	293
Central hill	11.4	24.6	51.0	11.5	0.0	0.0	1.4	100.0	616
Western hill	11.7	36.0	46.8	4.4	0.0	0.4	0.6	100.0	440
Mid-western hill	30.6	37.0	26.6	3.6	0.0	0.4	1.7	100.0	189
Far-western hill	23.6	45.9	23.2	2.7	2.2	1.0	1.5	100.0	120
Eastern terai	12.8	21.4	52.5	11.6	0.8	0.1	0.8	100.0	638
Central terai	13.6	40.7	39.7	5.4	0.3	0.0	0.3	100.0	763
Western terai	9.7	23.8	58.2	7.2	0.0	0.0	1.1	100.0	358
Mid-western terai	31.2	32.3	30.4	5.4	0.3	0.0	0.3	100.0	242
Far-western terai	20.5	25.1	44.4	6.8	0.2	0.0	3.0	100.0	217
Education									
No education	18.0	53.6	26.3	0.5	1.2	0.0	0.4	100.0	567
Primary	17.1	38.5	41.7	2.4	0.1	0.1	0.1	100.0	814
Some secondary	14.2	33.4	45.1	6.3	0.2	0.2	0.6	100.0	1,437
SLC and above	13.6	20.8	49.4	13.9	0.3	0.1	1.9	100.0	1,303
	1010	2010			0.0	0.1			1,000
Wealth quintile Lowest	21.2	55.4	18.8	3.3	0.6	0.0	0.6	100.0	610
Second	16.4	55.4 47.9	30.0	3.3 4.1	0.6	0.0	0.6	100.0	695
Middle	15.5	39.5	38.7	5.1	0.2	0.1	1.0	100.0	830
Fourth	14.9	24.6	51.4	8.0	0.3	0.2	0.6	100.0	920
Highest	10.7	13.4	62.1	12.0	0.1	0.1	1.5	100.0	1,066
Total 15-49	15.1	33.2	43.2	7.1	0.3	0.1	0.9	100.0	4,121

Note: Total includes two men who prefer brochures/leaflets who are not shown separately. SLC = School Leaving Certificate

Television and FM radio stations are popular in all age groups of women and men, while Radio Nepal is most popular among women age 45-49. Women in the terai, Western region, and Central terai subregion are less likely to prefer Radio Nepal than women in other areas.

Education and income status are directly related to the preferred media source for health-related information. Women and men with no education and those in the lowest wealth quintile are more likely to prefer Radio Nepal than those with an SLC and higher level of education and those in the highest wealth quintile.

#### 3.5 EMPLOYMENT

#### 3.5.1 **Employment Status**

The 2011 NDHS asked respondents a number of questions regarding their employment status, including whether they were working in the seven days preceding the survey and, if not, whether they had worked in the 12 months before the survey. The results for women and men are presented in Tables 3.8.1 and 3.8.2. At the time of the survey, 60 percent of women were currently employed and 15 percent were not employed but had worked sometime during the past 12 months (Figure 3.1).

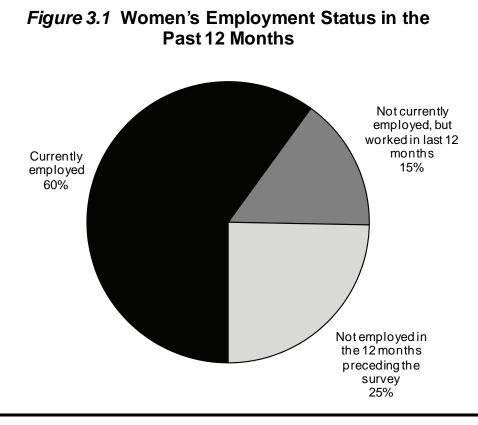
### Table 3.8.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Nepal 2011

_		the 12 months the survey	Not employed in the 12 months		
Background characteristic	Currently employed <sup>1</sup>	Not currently employed	preceding the survey	Total	Number of women
Age	40.4	10.1	05.4	100.0	0.750
15-19 20-24	48.4 52.4	16.4 17.2	35.1 30.3	100.0 100.0	2,753 2,297
20-24 25-29	52.4 59.4	14.6	25.9	100.0	2,297
30-34	65.4	15.3	19.4	100.0	1,734
35-39	71.0	13.4	15.6	100.0	1,557
40-44	71.4	13.9	14.7	100.0	1,285
45-49	70.2	14.1	15.7	100.0	947
Marital status	50.0	44.0	04.0	100.0	0 700
Never married Married	53.6	14.6	31.8	100.0	2,708
Divorced/separated/widowed	61.0 83.7	15.8 6.9	23.2 9.4	100.0 100.0	9,608 358
•	03.7	0.9	9.4	100.0	300
Number of living children	52.2	16.3	31.5	100.0	3,823
1-2	58.9	13.9	27.3	100.0	4,591
3-4	67.3	16.2	16.6	100.0	3,207
5+	71.5	15.4	13.1	100.0	1,053
Residence	45.0	11.0	40.0	100.0	4 040
Urban Rural	45.3 62.5	11.9 15.9	42.8 21.6	100.0	1,819 10,855
Ecological zone					
Mountain	88.8	6.6	4.5	100.0	805
Hill	74.7	9.7	15.6	100.0	5,090
Terai	45.6	20.6	33.8	100.0	6,779
Development region	50.0	44.0	00.0	100.0	0.057
Eastern Central	59.2 50.8	14.0	26.8	100.0	3,057
Western	50.8 64.1	17.5 13.9	31.8 22.0	100.0 100.0	4,236 2,660
Mid-western	68.6	14.5	16.9	100.0	1,478
Far-western	74.7	15.2	10.1	100.0	1,242
Subregion					
Eastern mountain	89.9	4.5	5.7	100.0	229
Central mountain	90.8	5.3	3.8	100.0	258
Western mountain	86.4	9.3	4.3	100.0	319
Eastern hill	78.6	14.3	7.1	100.0	956
Central hill	64.3	8.6	27.1	100.0	1,563
Western hill Mid-western hill	78.1 75.9	9.3 8.4	12.5 15.7	100.0 100.0	1,513 649
Far-western hill	90.7	6.1	3.2	100.0	409
Eastern terai	45.6	15.0	39.4	100.0	1,873
Central terai	37.7	24.5	37.8	100.0	2,415
Western terai	45.6	20.0	34.5	100.0	1,147
Mid-western terai	58.1	20.9	21.0	100.0	668
Far-western terai	61.3	22.8	15.9	100.0	676
Education	05.0	10.0	47.0	400.0	5.045
No education	65.2	16.9 14.7	17.8 21.4	100.0	5,045
Primary Some secondary	63.9 55.9	14.7	21.4 28.7	100.0 100.0	2,209
SUC and above	55.9 50.4	12.4	37.1	100.0	3,088 2,331
Wealth quintile					
Lowest	79.5	14.6	5.9	100.0	2,120
Second	70.5	16.1	13.4	100.0	2,393
Middle	60.3	18.4	21.4	100.0	2,600
Fourth	52.6	17.0	30.4	100.0	2,722
Highest	43.5	10.8	45.7	100.0	2,839
Fotal	60.0	15.3	24.7	100.0	12,674

<sup>1</sup> "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason. SLC = School Leaving Certificate

The proportion of women currently employed increases with age. Current employment is lowest among women age 15-19 (48 percent) and highest among those age 35-49 (70 percent or higher). Women who are divorced, separated, or widowed are more likely to be currently employed than other women (84 percent versus 61 percent or lower). Women who have five or more children are more likely to be employed (72 percent) than those with no children (52 percent).



Notable variations are seen in the proportion of women currently employed by place of residence and region. Rural women are more likely to be currently employed than urban women (63 percent versus 45 percent). Women in the mountain zone are more likely to be economically active than women residing in the other ecological zones. Women in the Far-western, Mid-western, and Western regions are more likely to be currently employed (75 percent, 69 percent, and 64 percent, respectively) than those living in the Eastern and Central regions (59 percent and 51 percent, respectively).

The proportion of women currently employed decreases with level of education. For example, 65 percent of women with no education are currently employed, compared with 50 percent of women with an SLC or higher level of education. Women living in the poorest households are much more likely to be employed (80 percent) than women in the wealthiest households (44 percent). This could partly be due to the economic needs of poorer households that drive women to seek employment.

The proportion currently employed is higher among men than women (Table 3.8.2). The percentage of currently employed men rises with age, from 46 percent among men age 15-19 to 92 percent among men age 45-49. Ever-married men, those living in the mountain zone, those residing in the Eastern mountain and Eastern hill subregions, those with little or no education, and those living in the poorest households are more likely to be employed than their counterparts. Twenty-five percent of women and 13 percent of men were not employed during the 12 months preceding the survey.

### Table 3.8.2 Employment status: Men

Dereent distribution of mon ago 15 10 h	v omploviment status accordin	a to bookground oborgotoristics. Nonal 2011
Fercent distribution of men ade 15-49 b	V EITIDIOVITIETII SIAIUS. ACCUTUITI	g to background characteristics, Nepal 2011

Background characteristic		the survey	the 12 months			
sharaotonotio	Currently employed <sup>1</sup>	Not currently employed	preceding the survey	Total	Number of mer	
Age						
15-19	46.0	15.2	38.8	100.0	978	
20-24	75.5	11.2	13.3	100.0	685	
25-29	88.9	7.5	3.6	100.0	581	
30-34	89.6	8.1	2.3	100.0	499	
35-39	90.9	7.8	1.4	100.0	542	
40-44 45-49	91.7 92.3	7.0 4.9	1.3 2.9	100.0 100.0	438 399	
Marital status						
Never married	53.1	13.7	33.1	100.0	1,433	
Married	90.8	7.4	1.8	100.0	2,626	
Divorced/separated/widowed	(75.1)	(16.0)	(8.9)	100.0	62	
Number of living children						
0	58.4	13.5	28.0	100.0	1,755	
1-2	90.9	6.7	2.4	100.0	1,232	
3-4	92.3	7.3	0.5	100.0	836	
5+	92.4	6.8	0.8	100.0	298	
Residence	=0.4					
Urban Rural	76.1 77.8	6.2 10.5	17.7 11.8	100.0 100.0	717 3,404	
Ecological zone	11.0	10.0	11.0	100.0	0,101	
Mountain	83.4	13.4	3.2	100.0	245	
Hill	78.2	10.4	11.4	100.0	1,658	
Terai	76.3	8.8	14.9	100.0	2,218	
Development region						
Eastern	80.7	9.1	10.2	100.0	996	
Central	80.5	6.9	12.5	100.0	1,448	
Western	72.8	8.8	18.4	100.0	798	
Mid-western	68.5	21.1	10.4	100.0	493	
Far-western	78.7	9.2	12.1	100.0	385	
Subregion						
Eastern mountain	92.3	5.9	1.8	100.0	66	
Central mountain	86.6	7.4	6.0	100.0	69	
Western mountain	76.1	21.6	2.3	100.0	110	
Eastern hill	91.9	5.0	3.1	100.0	293	
Central hill	80.2	6.6	13.2	100.0	616	
Western hill	73.2	9.1	17.7	100.0	440	
Mid-western hill	57.3	33.8	8.9	100.0	189	
Far-western hill	85.7	11.5	2.9	100.0	120	
Eastern terai	74.4	11.2	14.4	100.0	638	
Central terai	80.3	7.2	12.5	100.0	763	
Western terai	72.3	8.5	19.2	100.0	358	
Mid-western terai Far-western terai	79.5 70.6	6.8 10.0	13.6 19.4	100.0 100.0	242 217	
Education					2	
No education	90.2	8.7	1.1	100.0	567	
Primary	90.9	6.1	3.0	100.0	814	
Some secondary	90.9 71.0	10.9	18.2	100.0	1,437	
SLC and above	70.7	11.2	18.1	100.0	1,303	
Wealth quintile						
Lowest	83.4	12.7	3.9	100.0	610	
Second	81.8	8.8	9.4	100.0	695	
Middle	80.2	9.9	9.9	100.0	830	
Fourth	73.8	10.0	16.2	100.0	920	
Highest	72.3	8.3	19.4	100.0	1,066	
Total 15-49	77.5	9.7	12.8	100.0	4,121	

Note: Figures in parentheses are based on 25-49 unweighted cases. <sup>1</sup> "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason. SLC = School Leaving Certificate

# 3.5.2 Occupation

Respondents who were currently employed or had worked in the 12 months preceding the survey were asked to specify their occupation. The results are presented in Table 3.9.1 and Table 3.9.2, which show data on employed women and men, respectively, by occupation according to background characteristics.

#### Table 3.9.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nepal 2011

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other/ missing	Total	Number of women
Age									
15-19	2.5	1.0	7.0	4.1	2.2	83.0	0.2	100.0	1,786
20-24	7.9	2.1	11.2	5.5	3.1	70.0	0.2	100.0	1,600
25-29	6.5	1.2	14.7	6.3	2.5	68.5	0.3	100.0	1,556
30-34	3.5	1.0	15.2	5.9	3.1	71.0	0.3	100.0	1,398
35-39	4.4	1.5	13.7	3.7	3.0	73.8	0.1	100.0	1,314
40-44	2.2	0.4	14.1	2.4	2.4	78.4	0.0	100.0	1,096
45-49	1.4	0.3	9.4	1.2	2.1	85.4	0.1	100.0	798
Aarital status									
Never married	7.6	1.7	10.2	6.1	2.3	71.6	0.4	100.0	1,846
Married	3.6	0.9	12.2	4.2	2.7	76.3	0.1	100.0	7,378
Divorced/separated/widowed	2.5	2.4	20.3	2.7	3.4	67.8	0.9	100.0	324
lumber of living children	7.4	1.7	10.8	6.3	2.2	71.2	0.4	100.0	2,619
1-2	5.7	1.7	16.4	5.3	3.0	67.8	0.4	100.0	3,339
3-4	1.0	0.4	10.4	3.1	2.7	82.6	0.2	100.0	2,675
5-4 5+	0.0	0.4	5.8	0.4	2.7	02.0 91.0	0.0	100.0	2,675
esidence	0.0	0.0	0.0	0.7	2.0	51.0	0.1	100.0	515
Urban	12.0	4.2	33.2	10.1	5.9	33.6	1.0	100.0	1.041
Rural	3.4	4.2 0.8	33.2 9.5	3.8	2.3	80.2	0.1	100.0	8,508
	5.4	0.0	5.5	0.0	2.0	00.2	0.1	100.0	0,000
cological zone Mountain	2.7	0.5	6.5	1.2	0.9	88.2	0.0	100.0	769
Hill	5.3	1.3	11.0	4.3	1.7	76.0	0.3	100.0	4,294
Terai	3.7	1.0	14.1	5.2	3.8	72.0	0.1	100.0	4,485
evelopment region									
Eastern	4.2	1.0	15.9	5.6	2.2	70.9	0.1	100.0	2,239
Central	5.8	1.8	13.1	6.5	2.6	69.7	0.6	100.0	2,891
Western	4.1	0.7	11.2	3.2	2.3	78.4	0.0	100.0	2,075
Mid-western	2.7	0.9	9.8	1.8	3.1	81.7	0.0	100.0	1,228
Far-western	3.1	0.7	5.8	2.3	3.8	84.2	0.1	100.0	1,116
ubregion									
Eastern mountain	2.7	0.3	10.2	0.8	0.3	85.5	0.2	100.0	216
Central mountain	3.2	0.6	3.5	2.5	0.2	90.1	0.0	100.0	248
Western mountain	2.2	0.7	6.3	0.3	1.8	88.7	0.0	100.0	305
Eastern hill	3.5	0.3	7.7	2.5	0.8	85.2	0.0	100.0	888
Central hill	10.7	3.5	21.3	11.0	2.6	49.8	1.1	100.0	1,140
Western hill	3.5	0.5	8.0	2.0	1.7	84.4	0.0	100.0	1,323
Mid-western hill	3.7	1.3 0.2	9.3	1.7 0.7	1.7	82.4 94.5	0.0	100.0	547
Far-western hill Eastern terai	1.5 5.0	0.2	1.6 23.5	0.7 9.1	1.5 3.7	94.5 57.0	0.0 0.1	100.0 100.0	396 1,135
Central terai	5.0 2.4	0.7	23.5 8.5	9.1 3.7	3.7	57.0 81.3	0.1	100.0	1,135
Western terai	5.1	1.2	17.0	5.2	3.4	68.0	0.2	100.0	752
Mid-western terai	1.9	0.5	10.2	2.3	4.9	80.1	0.0	100.0	528
Far-western terai	4.3	1.0	9.5	4.1	6.0	74.8	0.2	100.0	568
ducation									
No education	0.1	0.3	6.6	2.4	3.0	87.3	0.2	100.0	4,146
Primary	0.2	0.9	11.3	6.4	4.1	77.0	0.1	100.0	1,736
Some secondary	1.2	0.6	14.5	7.0	2.0	74.5	0.2	100.0	2,201
SLC and above	25.9	4.5	24.8	4.3	0.7	39.3	0.4	100.0	1,465
lealth quintile									
Lowest	0.5	0.2	0.9	0.5	2.0	95.8	0.0	100.0	1,993
Second	1.1	0.3	2.7	1.9	3.3	90.7	0.1	100.0	2,073
Middle	2.1	0.5	6.1	3.7	3.2	84.3	0.1	100.0	2,045
Fourth	5.0	1.3	17.2	7.4	2.8	65.9	0.3	100.0	1,895
Highest	15.8	3.9	40.8	10.6	1.7	26.7	0.6	100.0	1,542
otal	4.3	1.1	12.1	4.5	2.6	75.1	0.2	100.0	9,548

In Nepal, the agricultural sector remains the main employer, with 75 percent of women and 35 percent of men engaged in agricultural occupations. These figures are lower than those in the 2006 NDHS, when 86 percent of women and 52 percent of men were employed in agricultural occupations. The survey indicates that 7 percent of employed women are manual workers (skilled and unskilled), while 4 percent are in professional, technical, and managerial fields. Sales and services is an emerging sector, with more than one-tenth (12 percent) of women and more than one-fifth (22 percent) of men engaged in this sector. This is an increase since 2006, when 7 percent of women and 13 percent of men were involved in the sales and service sector.

Type of occupation varies greatly by gender. As women are less likely than men to be highly educated or to have attended vocational or technical schools, their employment in the professional, technical, and managerial sector is somewhat lower than men's (4 percent compared with 8 percent). Twenty-eight percent of men age 15-49 do manual work (skilled and unskilled), while only 7 percent of women work in this field. Men are also more likely than women to be engaged in clerical work (6 percent versus 1 percent).

### Table 3.9.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nepal 2011

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other/ missing	Total	Number men
Age									
15-19	3.0	4.6	14.2	14.9	11.3	49.1	2.9	100.0	598
20-24	9.8	9.4	27.1	15.1	9.3	27.7	1.5	100.0	594
25-29	6.2	5.5	23.7	21.5	12.3	30.6	0.3	100.0	560
30-34	9.1	6.4	27.4		12.3	26.3	0.3	100.0	488
				19.6					
35-39	6.8	5.1	26.7	20.7	9.3	31.2	0.1	100.0	534
40-44 45-49	9.5 11.3	3.7 6.9	20.0 15.4	18.3 13.7	11.2 7.1	37.3 45.6	0.0 0.0	100.0 100.0	432 387
	11.5	0.9	15.4	13.7	7.1	45.0	0.0	100.0	307
Aarital status	7.0	C 4	00.0	44.0	10.4	20.0	2.4	100.0	050
Never married	7.9	6.4	22.3	14.6	10.1	36.2	2.4	100.0	958
Married Divorced/separated/widowed	7.7 (3.5)	5.9 (3.1)	22.6 (9.1)	18.9 (19.2)	10.1 (24.3)	34.6 (40.8)	0.2 (0.0)	100.0 100.0	2,579 56
•	(3.5)	(3.1)	(9.1)	(19.2)	(24.3)	(40.8)	(0.0)	100.0	50
lumber of living children	7.4	0.5	00.0	44.0	40.4			400.0	4 000
0	7.4	6.5	22.8	14.9	10.1	36.2	2.0	100.0	1,263
1-2	10.7	5.7	26.4	18.2	11.2	27.5	0.2	100.0	1,202
3-4	5.6	6.4	19.4	21.2	8.7	38.6	0.0	100.0	832
5+	2.8	3.7	11.4	18.2	12.1	51.9	0.0	100.0	296
Residence									
Urban	14.4	9.8	35.5	19.5	9.3	10.2	1.3	100.0	590
Rural	6.4	5.2	19.7	17.4	10.5	40.0	0.7	100.0	3,003
cological zone									
Mountain	6.3	3.7	12.0	8.4	10.4	58.9	0.3	100.0	237
Hill	9.6	6.2	20.7	16.7	7.6	38.6	0.7	100.0	1.469
Terai	6.4	6.1	24.8	19.8	12.5	29.4	1.0	100.0	1,887
Development region									
Eastern	7.9	4.8	26.4	16.2	7.4	35.1	2.1	100.0	895
Central	7.7	8.1	22.8	18.4	11.9	30.5	0.6	100.0	1,267
Western	9.3	5.4	23.4	20.5	11.3	30.0	0.0	100.0	652
Mid-western	5.7	3.2	18.3	16.7	13.5	42.6	0.2	100.0	442
Far-western	6.7	6.1	12.6	15.4	6.6	52.5	0.0	100.0	338
ubragion									
Subregion Eastern mountain	6.8	4.1	8.7	5.8	7.9	65.5	1.2	100.0	65
Central mountain	8.5	5.6	14.1	7.9	12.9	51.0	0.0	100.0	65
Western mountain	4.7	2.3	12.7	10.3	10.3	59.6	0.0	100.0	107
Eastern hill	4.7	0.7	21.4	12.1	3.5	56.1	2.0	100.0	284
Central hill	14.2	11.8	25.8	17.1	8.9	21.5	0.8	100.0	535
Western hill	8.4	4.1	18.1	22.3	6.5	40.6	0.0	100.0	362
Mid-western hill	8.7	1.9	17.4	14.2	12.2	45.6	0.0	100.0	172
Far-western hill	6.2	6.7	8.8	12.0	7.7	58.5	0.0	100.0	117
Eastern terai	10.0	7.0	31.1	19.6	9.4	20.7	2.2	100.0	546
Central terai	2.4	5.3	21.2	20.5	14.2	35.7	0.6	100.0	667
Western terai	10.5	7.1	30.1	18.1	16.8	16.8	0.5	100.0	290
Mid-western terai	4.7	5.1	20.2	20.5	13.6	35.9	0.0	100.0	209
Far-western terai	6.1	5.9	15.6	19.3	7.1	45.8	0.1	100.0	175
ducation									
No education	0.5	5.7	6.7	19.0	22.5	45.7	0.0	100.0	561
Primary	0.6	5.8	12.3	25.7	13.6	41.5	0.6	100.0	789
Some secondary	2.6	5.1	23.5	19.7	9.0	39.4	0.9	100.0	1,176
SLC and above	22.4	7.3	36.6	9.2	3.1	20.2	1.3	100.0	1,068
Vealth quintile									
Lowest	0.9	1.4	4.1	14.1	14.9	64.6	0.1	100.0	586
Second	3.7	5.5	7.6	15.5	13.5	54.1	0.1	100.0	629
Middle	3.2	5.2	17.1	25.3	12.3	35.7	1.2	100.0	748
Fourth	7.6	6.8	27.2	22.2	9.7	25.6	1.0	100.0	740
Highest	19.3	9.4	45.6	11.5	3.8	9.2	1.2	100.0	859
-									
otal 15-49	7.7	6.0	22.3	17.8	10.3	35.1	0.8	100.0	3,593

SLC = School Leaving Certificate

The relationship between occupation and age is mixed. One notable finding is that relatively high percentages of women age 25-29 and 30-34 (15 percent) and men age 20-24, 30-34, and 35-39 (27 percent each) are employed in sales and services. In addition, 8 percent of women age 20-24 are employed in professional, technical, and managerial positions, indicating a gradual shift in occupation among the younger generation.

Residence has a significant effect on type of occupation. As expected, a high proportion of respondents in rural areas—80 percent of employed women and 40 percent of employed men—are engaged in agricultural work. Urban women and men (33 percent and 36 percent, respectively) are more likely to be engaged in sales and services than in other occupations.

Women in the mountain zone and those in the Far-western region are more likely to be involved in agriculture (88 percent and 84 percent, respectively). However, since 2006 employment in agriculture has

declined by 6 percent and 12 percent in these regions, respectively, with a shift to other occupations. A similar pattern is observed among men. The lowest proportion of women engaged in the agricultural sector live in the Central hill subregion, and the lowest proportion of men in this sector live in the Western terai region.

There is a positive relationship between women's education and their involvement in sales and services. For example, one-fourth of women with an SLC and higher level of education are involved in this sector, as compared with 15 percent of women or less in the other education categories. A similar pattern is found among men. This is probably because both women and men with no education have few employment opportunities except in the agricultural sector, in contrast to educated women and men, who find it easier to obtain employment in the nonagricultural sector. Almost all employed women (96 percent) in the lowest wealth quintile work in agriculture, whereas only 27 percent of women in the highest wealth quintile do so. Agricultural work is also less common among men with an SLC or higher and men in the highest wealth quintile.

There has been an increase since 2006 in the proportion of individuals involved in the nonagricultural sector, from 14 percent to 25 percent among women and from 48 percent to 64 percent among men. This is partly due to urbanization and partly due to greater opportunities in the nonagricultural sector.

### 3.5.3 Earnings, Employers, and Continuity of Employment

Tables 3.10.1 and 3.10.2 show the percent distribution of women and men by type of earnings and employment characteristics. These tables also present data on whether respondents are involved in agricultural or nonagricultural occupations.

More than three-quarters (76 percent) of women engaged in agricultural work are unpaid, and women working in this sector are most likely to be employed by family members. Ten percent of women employed in the agricultural sector are paid in-kind only. Women are more likely to be paid in cash if they are employed in the nonagricultural sector: 80 percent of women employed in this sector are paid in cash, compared with 13 percent of women who are employed in agriculture (including cash and in-kind).

Table 3.10.1 Type of employment: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey
by type of earnings, type of employer, and continuity of employment, according to type of
employment (agricultural or nonagricultural), Nepal 2011

	· ·		
Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	5.9	80.0	24.3
Cash and in-kind	7.3	3.4	6.3
In-kind only	10.4	0.7	8.0
Not paid	76.4	15.9	61.4
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	82.8	26.0	68.7
Employed by nonfamily member	14.6	42.4	21.5
Self-employed	2.6	31.6	9.8
Total	100.0	100.0	100.0
Continuity of employment			
All year	45.8	77.8	53.8
Seasonal	47.4	8.6	37.7
Occasional	6.8	13.5	8.5
Total Number of women employed	100.0	100.0	100.0
during the last 12 months	7,172	2,375	9,548

Note: Total includes one woman with missing information on type of employment who is not shown separately.

#### Table 3.10.2 Type of employment: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Nepal 2011

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	11.7	92.0	63.8
Cash and in-kind	27.4	4.5	12.6
In-kind only	18.2	0.4	6.7
Not paid	42.7	3.0	17.0
Total	100.0	100.0	100.0
Continuity of employment			
All year	40.6	76.4	63.9
Seasonal	51.2	16.4	28.6
Occasional	8.2	7.2	7.5
Total Number of men employed during	100.0	100.0	100.0
the last 12 months	1,262	2,331	3,593

Overall, 61 percent of employed women are not paid at all, while 31 percent earn cash or cash and inkind payment for their work. In contrast, 17 percent of employed men are unpaid (Table 3.10.2). Forty-three percent of men who work in agriculture are unpaid, as compared with 3 percent who work in the nonagricultural sector.

Sixty-nine percent of women work for a family member and 10 percent are self-employed. Twenty-two percent of employed women work for someone outside the family. More than four in five women employed in the agricultural sector are working for a family member, compared with 26 percent of women employed in the nonagricultural sector. The proportion of women employed by someone outside the family is higher among those working in the nonagricultural sector than among those in the agricultural sector (42 percent versus 15 percent). Only 3 percent of employed women working in the agricultural sector are self-employed, compared with 32 percent in the nonagricultural sector.

### 3.6 USE OF TOBACCO

Smoking and other forms of tobacco use can cause a wide variety of diseases and can lead to death. Smoking is a risk factor for cardiovascular disease, lung cancer, and other forms of cancer, and it contributes to the severity of pneumonia, emphysema, and chronic bronchitis symptoms. Also, secondhand smoke may adversely affect the health of children and aggravate childhood illnesses.

In the 2011 NDHS, women and men age 15-49 were asked whether they currently smoked cigarettes and, if so, how many cigarettes they had smoked in the past 24 hours. Those who reported not currently smoking cigarettes were asked whether they use any other forms of tobacco, such as a pipe, chewing tobacco, or snuff. Tables 3.11.1 and 3.11.2 show the percentage of women and men who smoke cigarettes or use other tobacco products according to background characteristics. Table 3.11.2 also shows the percent distribution of male cigarette smokers by number of cigarettes smoked in the preceding 24 hours.

### Table 3.11.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products, according to background characteristics and maternity status, Nepal 2011

haracteristic Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49 Maternity status	Cigarettes 0.5 1.9 5.7 9.4 15.5 22.2 24.9	0.0 0.3 0.4 1.1	Other tobacco 0.7 1.7	tobacco 98.7 96.5	women 2,753
15-19 20-24 25-29 30-34 35-39 40-44 45-49 Maternity status	1.9 5.7 9.4 15.5 22.2	0.3 0.4 1.1	1.7		2,753
20-24 25-29 30-34 35-39 40-44 45-49 Maternity status	1.9 5.7 9.4 15.5 22.2	0.3 0.4 1.1	1.7		2,753
25-29 30-34 35-39 40-44 45-49 Maternity status	5.7 9.4 15.5 22.2	0.4 1.1		96 5	
25-29 30-34 35-39 40-44 45-49 Maternity status	5.7 9.4 15.5 22.2	0.4 1.1		30.0	2,297
30-34 35-39 40-44 45-49 <b>/aternity status</b>	9.4 15.5 22.2	1.1	5.5	89.7	2,101
35-39 40-44 45-49 <b>/aternity status</b>	15.5 22.2		6.8	85.1	1,734
40-44 45-49 Maternity status	22.2	1.2	9.9	77.3	1,757
45-49 <i>M</i> aternity status					
laternity status		1.4 1.9	13.6 15.1	68.3 64.6	1,285 947
	21.0	1.0	10.1	01.0	011
Pregnant	5.0	0.9	4.1	91.6	621
Breastfeeding (not pregnant)	6.8	0.9	6.2	88.1	2,859
Neither	9.6	0.9	6.1	85.9	2,839 9,193
Residence	010	0.0	0.11	0010	0,100
Urban	4.6	0.1	2.7	93.3	1,819
Rural	9.4	0.8	6.6	85.6	10,855
Ecological zone					
Mountain	18.2	4.1	7.1	76.1	805
Hill	11.0	0.8	7.8	83.4	5,090
Terai	5.9	0.2	4.5	90.4	6,779
Development region					
Eastern	5.0	0.0	9.3	87.2	3,057
Central	9.4	0.4	4.0	88.0	4,236
Western	7.2	0.1	5.9	88.2	2,660
Mid-western	15.6	4.5	6.6	79.6	1,478
Far-western	10.5	0.4	4.4	86.4	1,242
Subregion					
Eastern mountain	7.7	0.0	9.4	85.7	229
Central mountain	22.0	2.4	9.8	75.0	258
Western mountain	22.8	8.3	3.3	70.0	319
Eastern hill	7.4	0.0	18.3	77.7	956
Central hill	11.9	0.0	3.2	86.6	1,563
Western hill	8.8	0.1	6.2	86.1	1,513
Mid-western hill	17.5	5.2	10.9	77.0	649
Far-western hill	13.7	0.1	1.8	84.5	409
Eastern terai	3.4	0.0	4.7	92.2	1,873
Central terai	6.5	0.2	3.9	90.3	2,415
Western terai	5.1	0.0	5.5	90.9	1,147
Mid-western terai	11.2	0.9	3.7	86.0	668
Far-western terai	6.6	0.7	5.7	89.8	676
ducation					
No education	17.9	1.7	10.8	74.5	5,045
Primary	7.1	0.1	6.8	86.9	2,209
Some secondary	1.4	0.0	2.0	96.7	3,088
SLC and above	0.1	0.0	0.2	99.6	2,331
Vealth guintile					
Lowest	20.1	3.0	14.4	69.6	2,120
Second	11.6	0.6	7.5	83.1	2,393
Middle	7.0	0.4	5.0	88.8	2,600
Fourth	5.2	0.0	4.0	91.5	2,722
Highest	2.7	0.0	1.4	96.0	2,839
otal	8.7	0.7	6.0	86.7	12,674

#### Table 3.11.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Nepal 2011

Background Other use Number cigarette		Us	ses tobac	со	Does not			es by nui	ution of n mber of c e last 24	igarettes		– Total	Number of
	0	Cigarettes	Pipe		use		0				10+		cigarette smokers
20-24         26.5         0.3         28.8         66.2         68.5         8.4         32.7         26.6         9.7         72.5         100.0         122           30-34         32.0         0.6         50.6         35.8         499         8.5         24.7         30.2         12.2         24.4         100.0         160           40-44         42.5         0.9         51.5         30.8         438         7.6         17.9         26.9         20.0         27.7         100.0         186           45-49         46.0         0.9         47.5         30.1         399         4.9         19.0         29.9         13.1         33.2         100.0         186           Residence         Uthan         25.0         0.0         30.3         55.7         717         8.8         26.6         31.0         12.8         27.7         100.0         180           Mountain         40.4         4.6         28.1         12.6         53         10.9         25.1         11.6         47.2         40.0         482           Hui         29.1         0.4         31.3         51.7         12.8         12.4         17.7         100.0         1													
25-29       36.4       0.3       50.1       35.7       581       10.2       30.3       29.5       10.7       19.3       100.0       212         35-39       33.0       0.7       55.3       31.5       542       12.7       19.2       30.0       8.2       29.9       100.0       176         40-44       42.5       0.9       51.5       30.8       383       7.6       17.9       26.9       20.0       27.7       100.0       186         45-49       46.0       0.9       47.5       30.1       399       4.9       19.0       28.9       13.1       33.2       100.0       186         Constant of the state o													
30-34       32.0       0.6       50.6       35.8       499       8.5       24.7       30.2       12.2       24.4       100.0       160         40-44       42.5       0.9       51.5       30.8       438       7.6       17.9       20.0       8.2       29.9       100.0       178         46-49       46.0       0.9       47.5       30.1       399       4.9       19.0       26.9       20.0       27.7       100.0       186         Residence													
35-39       33.0       0.7       55.3       31.5       542       12.7       19.2       30.0       8.2       29.9       100.0       178         45-49       46.0       0.9       47.5       30.1       399       4.9       19.0       29.9       13.1       33.2       100.0       186         Association of the second of the se													
$\begin{array}{cccccccccccccccccccccccccccccccccccc$													
45-9       46.0       0.9       47.5       30.1       399       4.9       19.0       29.9       13.1       33.2       100.0       184         Residence         Urban       25.0       0.0       30.3       55.7       717       8.8       26.6       31.0       12.8       20.7       100.0       1,00.9         Rural       30.8       0.5       39.6       46.4       3,404       9.0       24.8       28.1       12.8       20.7       100.0       1,00.9         Becological zone        40.4       4.6       28.1       46.6       245       5.3       10.9       25.1       11.6       47.2       100.0       482         Terai       29.2       0.0       44.0       45.5       2,218       12.3       31.7       29.1       9.3       17.6       100.0       463         Western       23.2       0.0       36.9       46.4       1,448       10.7       28.0       22.4       14.2       24.7       100.0       463         Western       23.4       0.0       39.1       50.8       38.5       50.2       38.5       6.6       12.4       17.6       10.0       17.1													
Residence Naral         25.0         0.0         39.3         55.7         717         8.8         26.6         31.0         12.8         20.7         100.0         1,049           Evelogical zone Muntain         40.4         4.6         28.1         46.6         24.5         5.3         10.9         25.1         11.6         47.2         100.0         48.9           Hill         29.1         0.4         31.3         51.7         1,658         5.3         10.9         25.1         11.6         47.2         100.0         48.9           Development region Central         23.0         0.0         38.5         48.3         996         11.1         21.5         33.4         11.5         22.5         100.0         48.9           Western         23.6         0.5         38.5         48.3         996         41.1         21.5         33.4         1.5         22.5         100.0         24.4           Western         23.6         0.5         38.3         50.2         38.5         48.3         996         41.2         21.7         33.1         4.5         26.3         100.0         11.1           Far western         34.6         69         34.4         68 <td></td>													
Urban         25.0         0.0         30.3         55.7         717         8.8         26.6         31.0         12.8         20.7         100.0         180           Rural         30.8         0.5         39.6         46.4         3,404         9.0         24.8         28.1         12.8         25.3         100.0         1,049           Ecological zone         Muntain         40.4         4.6         28.1         46.6         245         5.3         19.1         28.4         17.8         29.4         10.0         482           Terai         29.2         0.0         44.0         45.5         2,218         12.3         31.7         29.1         9.3         17.6         100.0         468           Development region         Eastern         29.5         0.2         38.5         48.3         996         11.1         21.5         33.4         11.5         22.5         100.0         240           Western         23.4         0.0         36.9         46.4         1.448         10.7         28.0         22.4         14.2         24.7         100.0         38.0         100.1         17.1           Far-western         23.6         0.5         38.	45-49	46.0	0.9	47.5	30.1	399	4.9	19.0	29.9	13.1	33.2	100.0	184
Rural         30.8         0.5         39.6         46.4         3,404         9.0         24.8         28.1         12.8         25.3         100.0         1,049           Ecological zone Hill         29.1         0.4         31.3         51.7         1,658         5.3         10.9         25.1         11.6         47.2         100.0         482           Terai         29.2         0.0         44.0         45.5         2,218         12.3         31.7         29.1         9.3         17.6         100.0         482           Development region Central         29.5         0.2         38.5         48.3         996         11.1         21.5         33.4         11.5         22.5         100.0         463           Western         23.4         0.0         39.1         50.8         788         99.24.0         29.0         18.9         18.2         100.0         171           Far-western         29.6         0.5         38.3         50.2         385         66         14.2         17.6         26.5         15.9         25.8         100.0         21           Gentral mountain         35.1         0.6         28.3         48.0         69         34.6													
Ecological zone Muntain         40.4         4.6         28.1         46.6         245         5.3         10.9         25.1         11.6         47.2         100.0         99           Hill         29.1         0.4         31.3         51.7         1658         53.3         19.1         28.4         17.8         29.4         100.0         648           Development region         Eastern         29.5         0.2         38.5         48.3         996         11.1         21.5         33.4         11.5         22.5         100.0         648           Development region         Eastern         29.5         0.2         38.5         48.3         996         24.0         29.0         18.9         18.2         100.0         463           Western         23.4         0.0         39.1         50.8         798         9.9         24.0         29.0         18.9         18.2         100.0         187           Mid-western         23.4         0.0         37.6         46.3         493         1.4         21.7         33.1         10.0         33.8         100.0         114           Subregion         Eastern mountain         30.5         1.0         27.3         <													
Mountain Hill         40.4         4.6         28.1         46.6         245         5.3         19.1         25.1         11.6         47.2         100.0         99           Hill         29.2         0.0         44.0         45.5         2,218         12.3         31.7         29.1         9.3         17.6         100.0         482           Terai         29.2         0.0         44.0         45.5         2,218         12.3         31.7         29.1         9.3         17.6         100.0         482           Central         32.0         0.0         36.9         46.4         1,448         10.7         28.0         22.4         14.2         24.7         100.0         483           Western         23.4         0.0         39.1         50.8         798         9.9         24.0         29.0         18.9         18.2         100.0         171           Far-western         29.6         0.5         38.3         50.2         385         6.6         29.5         33.1         4.5         26.3         100.0         24           Western mountain         35.1         0.6         28.3         48.0         68         34.6         68         1	Rural	30.8	0.5	39.6	46.4	3,404	9.0	24.8	28.1	12.8	25.3	100.0	1,049
Hill       29.1       0.4       31.3       51.7       1,658       5.3       19.1       28.4       17.8       29.4       100.0       482         Development region       Eastern       29.5       0.2       38.5       48.3       996       11.1       21.5       33.4       11.5       22.5       100.0       483         Western       23.4       0.0       36.9       46.4       1,448       10.7       28.0       22.4       14.2       24.7       100.0       183         Mid-western       23.4       0.3       31.5       50.7       98       9.9       24.0       22.0       18.9       18.2       100.0       187         Mid-western       23.4       0.3       50.2       38.5       66       29.5       33.1       10.0       33.8       100.0       171         Far-western       29.6       0.5       38.3       50.2       385       66       12.2       10.0       38.8       100.0       20         Central mountain       30.5       1.0       27.3       54.0       66       14.2       17.6       26.5       15.9       25.8       100.0       24.8         Central hill       31.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Terai         29.2         0.0         44.0         45.5         2,218         12.3         31.7         29.1         9.3         17.6         100.0         648           Development region         Eastern         32.0         0.0         36.9         46.4         1.448         10.7         28.0         22.4         14.2         24.7         100.0         463           Western         34.8         2.9         37.6         46.3         493         1.4         21.7         33.1         10.0         33.8         100.0         117           Farwestern         29.6         0.5         38.3         50.2         385         6.6         29.5         31.4         4.5         25.8         100.0         117           Farwestern         30.5         1.0         27.3         54.0         66         14.2         17.6         26.5         15.9         25.8         100.0         24           Western mountain         35.1         0.6         28.3         48.0         69         34.4         6.8         13.6         15.9         25.8         100.0         24           Western mountain         31.0         0.3         36.1         46.9         293         6													
Development region         Eastern         29.5         0.2         38.5         48.3         996         11.1         21.5         33.4         11.5         22.5         100.0         294           Central         32.0         0.0         36.9         46.1         44.44         10.7         28.0         22.4         14.2         24.7         100.0         463           Western         34.8         2.9         37.6         46.3         493         1.4         21.7         33.1         10.0         33.8         100.0         171           Far-western         29.6         0.5         38.3         50.2         385         6.6         29.5         31.1         4.5         26.3         100.0         114           Subregion													
Eastern       29.5       0.2       38.5       48.3       996       11.1       21.5       33.4       11.5       22.5       100.0       294         Central       32.0       0.0       36.9       46.4       1,448       10.7       28.0       22.4       14.2       24.7       100.0       463         Western       23.4       0.0       39.1       50.8       798       9.9       24.0       29.0       18.9       18.2       100.0       187         Mid-western       23.4       0.5       38.3       50.2       385       6.6       29.5       33.1       10.0       23.8       100.0       171         Far-western       29.6       0.5       38.3       50.2       385       6.6       29.5       33.1       10.0       23         Western mountain       35.1       0.6       28.3       48.0       69       34.4       6.8       13.6       15.8       23.9       100.0       24         Western mountain       35.1       0.6       28.4       41.3       110       2.8       10.2       296       6.5       50.9       100.0       55         Eastern hill       31.0       0.3       36.1	Terai	29.2	0.0	44.0	45.5	2,218	12.3	31.7	29.1	9.3	17.6	100.0	648
Central       32.0       0.0       36.9       46.4       1.448       10.7       28.0       22.4       14.2       24.7       100.0       483         Western       23.4       0.0       39.1       50.8       798       99       24.0       29.0       18.9       18.2       100.0       187         Mid-western       23.6       0.5       38.3       50.2       385       6.6       29.5       33.1       10.0       33.8       100.0       111         Subregion       Eastern mountain       30.5       1.0       27.3       54.0       66       14.2       17.6       26.5       15.9       25.8       100.0       24.0         Western mountain       35.1       0.6       28.4       41.3       110       2.8       102       29.6       6.5       50.9       100.0       54         Eastern hill       33.0       0       21.5       56.0       616       55.1       18.8       13.4.0       100.0       205         Western hill       29.2       3.0       37.1       48.9       189       15.1       18.5       35.6       14.7       29.8       100.0       25         Far-western hill       29.2													
Western         23.4         0.0         39.1         50.8         798         9.9         24.0         29.0         18.9         18.2         100.0         187           Mid-western         34.8         2.9         37.6         46.3         493         1.4         21.7         33.1         10.0         33.8         100.0         171           Far-western         29.6         0.5         38.3         50.2         385         6.6         29.5         33.1         4.5         26.3         100.0         114           Subregion         Eastern mountain         30.5         1.0         27.3         54.0         66         14.2         17.6         26.5         15.9         25.8         100.0         20           Central mountain         35.1         0.6         28.3         48.0         69         34.4         6.8         13.6         15.8         50.9         100.0         24           Central mountain         33.0         0.0         21.5         56.0         616         5.5         14.8         23.3         34.0         100.0         255           Farwestern hill         29.2         3.0         37.1         48.9         189         1.5													
Mid-western         34.8         2.9         37.6         46.3         493         1.4         21.7         33.1         1.0.0         33.8         100.0         171           Far-western         29.6         0.5         38.3         50.2         385         6.6         29.5         33.1         4.5         26.3         100.0         111           Subregion         Eastern mountain         35.1         0.6         28.3         48.0         69         3.4         6.8         13.6         19.5         56.7         100.0         24           Western mountain         31.0         0.3         36.1         46.9         293         6.6         22.1         31.6         15.8         23.9         100.0         91           Central hill         33.3         0.0         21.5         56.0         616         5.5         14.8         26.3         19.3         34.0         100.0         205           Western hill         29.2         3.0         37.1         48.9         189         1.5         18.5         35.6         14.7         29.8         100.0         55           Eastern hill         29.2         0.5         38.8         48.7         120         <													
Far-western29.60.538.350.23856.629.533.14.526.3100.0114SubregionEastern mountain30.51.027.354.06614.217.626.515.925.8100.020Central mountain49.59.228.441.31102.810.229.66.550.9100.054Eastern hill31.00.366.146.92936.622.131.615.823.9100.091Central hill33.30.021.556.06165.514.826.319.334.0100.0205Western hill29.23.037.148.91891.518.535.614.729.8100.055Far-western hill29.20.538.848.71205.128.521.212.532.7100.035Eastern terai28.70.040.748.463813.021.735.08.921.4100.0183Central terai30.60.050.238.576315.941.819.89.213.310.024Western terai25.40.041.250.635813.925.630.017.912.6100.035Eastern terai25.90.140.145.724.21.773.645.210.033Mid-western													
Subregion         Eastern mountain         30.5         1.0         27.3         54.0         66         14.2         17.6         26.5         15.9         25.8         100.0         20           Western mountain         35.1         0.6         28.3         48.0         69         3.4         6.8         13.6         19.5         56.7         100.0         24           Western mountain         49.5         9.2         28.4         41.3         110         2.8         10.2         29.6         6.5         50.9         100.0         54           Eastern hill         31.0         0.3         36.1         46.9         293         6.6         22.1         31.6         15.8         23.9         100.0         90           Central hill         33.3         0.0         21.5         56.0         616         5.5         14.8         26.3         19.3         34.0         100.0         205           Mid-western hill         29.2         0.5         38.8         48.7         120         5.1         28.5         21.2         12.5         32.7         100.0         35           Eastern terai         26.4         0.0         41.2         50.6         358													
Eastern mountain       30.5       1.0       27.3       54.0       66       14.2       17.6       26.5       15.9       25.8       100.0       20         Central mountain       35.1       0.6       28.3       48.0       69       3.4       6.8       13.6       19.5       56.7       100.0       24         Western mountain       49.5       9.2       28.4       41.3       110       2.8       10.2       29.6       6.5       50.9       100.0       54         Eastern hill       31.0       0.3       36.1       46.9       293       6.6       22.1       31.6       15.8       23.9       100.0       94         Central hill       33.3       0.0       21.5       56.0       616       5.5       14.8       26.3       19.9       23.5       100.0       96         Mid-western hill       29.2       3.0       37.1       48.9       189       1.5       18.5       35.6       14.7       29.8       100.0       35         Eastern terai       28.7       0.0       40.7       48.4       638       13.0       21.7       35.0       8.9       21.4       100.0       33.2         Western terai	Far-western	29.6	0.5	38.3	50.2	385	6.6	29.5	33.1	4.5	26.3	100.0	114
Central mountain         35.1         0.6         28.3         48.0         69         3.4         6.8         13.6         19.5         56.7         100.0         24           Western mountain         49.5         9.2         28.4         41.3         110         2.8         10.2         29.6         6.5         50.9         100.0         54           Eastern hill         31.0         0.3         36.1         46.9         293         6.6         22.1         31.6         15.8         23.9         100.0         91           Central hill         21.8         0.0         37.3         51.0         440         6.1         22.4         28.0         19.9         23.5         100.0         96           Mid-western hill         29.2         0.5         38.8         48.7         120         5.1         28.5         21.2         12.5         32.7         100.0         35           Eastern terai         28.7         0.0         40.7         48.4         638         13.0         21.7         35.0         8.9         21.4         100.0         183           Central terai         30.6         0.0         50.2         32.7         7.7         35.6         <									~~ -				
Western mountain         49.5         9.2         28.4         41.3         110         2.8         10.2         29.6         6.5         50.9         100.0         54           Eastern hill         31.0         0.3         36.1         46.9         293         6.6         22.1         31.6         15.8         23.9         100.0         91           Central hill         33.3         0.0         21.5         56.0         616         5.5         14.8         26.3         19.3         34.0         100.0         205           Mid-western hill         29.2         3.0         37.1         48.9         189         1.5         18.5         35.6         14.7         29.8         100.0         55           Far-western hill         29.2         0.5         38.8         48.7         120         5.1         28.5         21.2         12.5         32.7         100.0         183           Central terai         30.6         0.0         50.2         38.5         763         15.9         41.8         19.8         9.2         13.3         100.0         234           Western terai         25.4         0.0         41.2         50.6         358         13.9													
Eastern hill31.00.336.146.92936.622.131.615.823.9100.091Central hill33.30.021.556.06165.514.826.319.334.0100.0205Western hill21.80.037.351.04406.122.428.019.923.5100.096Mid-western hill29.23.037.148.91891.518.555.614.729.8100.055Far-western hill29.20.538.848.71205.128.521.212.532.7100.035Eastern terai28.70.040.748.463813.021.735.08.921.4100.0183Central terai30.60.050.238.576315.941.819.89.213.3100.0234Western terai35.90.140.145.72421.929.931.06.930.2100.087Far-western terai24.70.040.552.92177.735.645.20.511.0100.0286Primary40.40.752.330.58144.618.132.416.328.7100.0329Some secondary26.40.434.154.51.43712.425.229.411.521.5100.0379SLC and													
Central hill33.30.021.556.06165.514.826.319.334.0100.0205Western hill21.80.037.351.04406.122.428.019.923.5100.096Mid-western hill29.23.037.148.91891.518.535.614.729.8100.035Far-western hill29.20.538.848.71205.128.521.212.532.7100.035Eastern terai28.70.040.748.463813.021.735.08.921.4100.0183Central terai30.60.050.238.576315.941.819.89.213.3100.0234Western terai25.40.041.250.635813.925.630.017.912.6100.091Mid-western terai35.90.140.145.72421.929.931.06.930.2100.087Far-western terai24.70.040.552.92177.735.645.20.511.0100.054EducationSome secondary26.40.434.154.51.43712.425.229.411.521.5100.0379SLC and above18.10.223.364.11.30311.530.027.011.220.3100.0<													
Western hill       21.8       0.0       37.3       51.0       440       6.1       22.4       28.0       19.9       23.5       100.0       96         Mid-western hill       29.2       3.0       37.1       48.9       189       1.5       18.5       35.6       14.7       29.8       100.0       55         Far-western hill       29.2       0.5       38.8       48.7       120       5.1       28.5       21.2       12.5       32.7       100.0       35         Eastern terai       28.7       0.0       40.7       48.4       638       13.0       21.7       35.0       8.9       21.4       100.0       183         Central terai       30.6       0.0       50.2       38.5       763       15.9       41.8       19.8       9.2       13.3       100.0       234         Western terai       25.4       0.0       41.2       50.6       358       13.9       25.6       30.0       17.9       12.6       100.0       87         Far-western terai       24.7       0.0       40.5       52.9       217       7.7       35.6       45.2       0.5       11.0       100.0       56         Far-western tera													
Mid-western hill       29.2       3.0       37.1       48.9       189       1.5       18.5       35.6       14.7       29.8       100.0       55         Far-western hill       29.2       0.5       38.8       48.7       120       5.1       28.5       21.2       12.5       32.7       100.0       35         Eastern terai       28.7       0.0       40.7       48.4       638       13.0       21.7       35.0       8.9       21.4       100.0       183         Central terai       30.6       0.0       50.2       38.5       763       15.9       41.8       19.8       9.2       13.3       100.0       234         Western terai       35.9       0.1       40.1       45.7       242       1.9       29.9       31.0       6.9       30.2       100.0       87         Far-western terai       24.7       0.0       40.5       52.9       217       7.7       35.6       45.2       0.5       11.0       100.0       286         Education       No education       50.4       1.0       60.8       19.9       567       7.5       29.1       24.2       11.7       27.6       100.0       286													
Far-western hill29.20.538.848.71205.128.521.212.532.7100.035Eastern terai28.70.040.748.463813.021.735.08.921.4100.0183Central terai30.60.050.238.576315.941.819.89.213.3100.0234Western terai25.40.041.250.635813.925.630.017.912.6100.091Mid-western terai35.90.140.145.72421.929.931.06.930.2100.087Far-western terai24.70.040.552.92177.735.645.20.511.0100.054EducationNo education50.41.060.819.95677.529.124.211.727.6100.0329Some secondary26.40.434.154.51.43712.425.229.411.521.5100.0379SLC and above18.10.223.364.11.30311.530.027.011.220.3100.0238Second34.20.641.844.06958.719.631.915.024.8100.0237Middle32.80.247.840.783013.329.726.010.620.4100													
Eastern terai28.70.040.748.463813.021.735.08.921.4100.0183Central terai30.60.050.238.576315.941.819.89.213.3100.0234Western terai25.40.041.250.635813.925.630.017.912.6100.091Mid-western terai35.90.140.145.72421.929.931.06.930.2100.087Far-western terai24.70.040.552.92177.735.645.20.511.0100.054EducationNo education50.41.060.819.95677.529.124.211.727.6100.0286Primary40.40.752.330.58144.618.132.416.328.7100.0379SLC and above18.10.223.364.11,30311.530.027.011.220.3100.0236Wealth quintileLowest39.02.245.635.36102.221.725.916.134.2100.0237Second34.20.641.844.06958.719.631.915.024.8100.0237Fourth25.00.034.454.19208.930.132.88.9<													
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Western terai       25.4       0.0       41.2       50.6       358       13.9       25.6       30.0       17.9       12.6       100.0       91         Mid-western terai       35.9       0.1       40.1       45.7       242       1.9       29.9       31.0       6.9       30.2       100.0       87         Far-western terai       24.7       0.0       40.5       52.9       217       7.7       35.6       45.2       0.5       11.0       100.0       54         Education       No education       50.4       1.0       60.8       19.9       567       7.5       29.1       24.2       11.7       27.6       100.0       286         Primary       40.4       0.7       52.3       30.5       814       4.6       18.1       32.4       16.3       28.7       100.0       329       Some secondary       26.4       0.4       34.1       54.5       1,437       12.4       25.2       29.4       11.5       21.5       100.0       379       SLC and above       18.1       0.2       23.3       64.1       1,303       11.5       30.0       27.0       11.2       20.3       100.0       238         Such and above <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													
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SLC and above         18.1         0.2         23.3         64.1         1,303         11.5         30.0         27.0         11.2         20.3         100.0         236           Wealth quintile													
Wealth quintile           Lowest         39.0         2.2         45.6         35.3         610         2.2         21.7         25.9         16.1         34.2         100.0         238           Second         34.2         0.6         41.8         44.0         695         8.7         19.6         31.9         15.0         24.8         100.0         237           Middle         32.8         0.2         47.8         40.7         830         13.3         29.7         26.0         10.6         20.4         100.0         272           Fourth         25.0         0.0         34.4         54.1         920         8.9         30.1         32.8         8.9         19.3         100.0         230           Highest         23.7         0.0         26.3         58.5         1,066         11.2         24.0         26.5         13.6         24.8         100.0         252													
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Second         34.2         0.6         41.8         44.0         695         8.7         19.6         31.9         15.0         24.8         100.0         237           Middle         32.8         0.2         47.8         40.7         830         13.3         29.7         26.0         10.6         20.4         100.0         272           Fourth         25.0         0.0         34.4         54.1         920         8.9         30.1         32.8         8.9         19.3         100.0         230           Highest         23.7         0.0         26.3         58.5         1,066         11.2         24.0         26.5         13.6         24.8         100.0         252		30.0	2.2	15.6	35.3	610	2.2	21.7	25.0	16 1	34.2	100.0	228
Middle32.80.247.840.783013.329.726.010.620.4100.0272Fourth25.00.034.454.19208.930.132.88.919.3100.0230Highest23.70.026.358.51,06611.224.026.513.624.8100.0252													
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Iotal 15-49 29.8 0.5 37.9 48.1 4,121 9.0 25.1 28.5 12.8 24.6 100.0 1,229	0												
	1 otal 15-49	29.8	0.5	37.9	48.1	4,121	9.0	25.1	28.5	12.8	24.6	100.0	1,229

Tobacco use is more common among Nepalese men than women (52 percent compared with 13 percent). Thirty percent of men smoke cigarettes, while 38 percent consume other forms of tobacco. The other forms of tobacco include smokeless tobacco, mainly the chewing tobacco locally known as *khaini, gutcha,* or *zarda*. Among women, 9 percent smoke cigarettes and 6 percent consume other forms of tobacco. Among men, use of tobacco is more common among older men, those living in rural areas, those with no education, and those in the lowest wealth quintile. A similar pattern is observed among women. Five percent of pregnant women and 7 percent of breastfeeding women smoke cigarettes. Additionally, 4 percent of pregnant women and 6 percent of breastfeeding women consume other forms of tobacco.

Men and women living in the mountain zone are more likely to smoke cigarettes than those in the hill or terai zone. Regional variations are notable, with smoking among men being highest in the Mid-western region (35 percent) and lowest in the Western region (23 percent). Regional and subregional variations are also common among women. For example, nearly one-fourth (23 percent) of women in the Western mountain subregion smoke cigarettes, compared with about 3 percent in the Eastern terai subregion.

Among men who smoke cigarettes, 9 percent had not smoked a cigarette in the last 24 hours, 25 percent had smoked 1-2 cigarettes, 29 percent had smoked 3-5 cigarettes, 13 percent had smoked 6-9 cigarettes, and 25 percent had smoked 10 or more cigarettes. Among women who smoke, 24 percent had smoked more than 10 cigarettes in the 24 hours before the survey (data not shown).

### **Key Findings:**

- There is clear evidence of a rising age at marriage among women and men in Nepal.
- The percentage of never-married women and men has increased in the past 10 years. Among women age 15-19, this proportion has grown from 60 percent in 2001 to 71 percent in 2011; among men in the same age group, it has increased from 89 percent to 93 percent.
- The percentage of women married by age 15 declines from 24 percent among those age 45-49 to 5 percent among those age 15-19. A similar trend is seen among men.
- Nepalese men marry four years later than women. The median age at first marriage among women age 25-49 is 17.5 years, and the median age among men is 21.6 years.
- Nepalese women generally initiate sexual intercourse at the time of their first marriage. In contrast, men initiate intercourse a year earlier than their first marriage.

This chapter discusses the principal factors other than contraception that affect women's chances of becoming pregnant. These factors include marriage and sexual activity. Marriage signals the onset of exposure to the risk of pregnancy for most women, and thus it is an important fertility indicator. In the context of the 2011 NDHS, marriage also includes living with partners in a consensual but informal union. In addition, this chapter includes information on more direct measures of the beginning of exposure to pregnancy and level of exposure, for example, age at first sexual intercourse and frequency of recent sexual intercourse.

# 4.1 CURRENT MARITAL STATUS

Table 4.1 shows current marital status by age and sex. Seventy-six percent of women and 64 percent of men age 15-49 are currently married. A higher proportion of men (35 percent) than women (21 percent) have never been married. In combination, divorce, separation, and widowhood are almost twice as high among women as among men (3 percent and less than 2 percent, respectively).

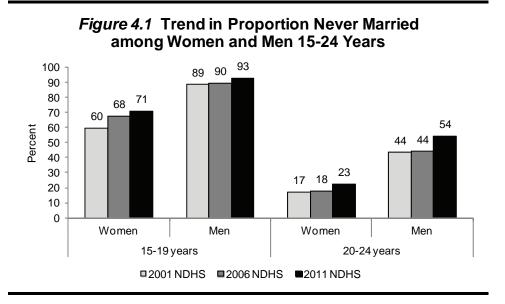
15-19 20-24 25-29 30-34	Never married	Married	Divorced				of respondents	
20-24 25-29 30-34			Divolced	Separated	Widowed	Total	currently in union	Number of respondents
20-24 25-29 30-34				WOMEN	1			
35-39 40-44 45-49 Total 15-49	71.0 22.6 7.0 2.0 1.4 1.2 1.3 21.4	28.8 76.6 91.1 95.7 93.8 92.6 87.9 75.8	0.0 0.1 0.2 0.1 0.1 0.1 0.2 0.1	0.2 0.3 0.6 1.0 1.0 2.3 0.7	0.0 0.2 1.2 1.6 3.6 5.0 8.3 2.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	28.8 76.6 91.1 95.7 93.8 92.6 87.9 75.8	2,753 2,297 2,101 1,734 1,557 1,285 947 12,674
				MEN				
15-19 20-24 25-29 30-34 35-39 40-44 45-49	92.9 54.4 17.3 6.4 2.4 1.4 0.2	6.9 44.7 81.0 91.9 95.3 96.6 96.3	0.0 0.2 0.4 1.5 0.3 0.6 0.0	0.2 0.7 1.1 0.0 0.9 0.2 1.1	0.0 0.0 0.2 0.1 1.1 1.2 2.4	100.0 100.0 100.0 100.0 100.0 100.0 100.0	6.9 44.7 81.0 91.9 95.3 96.6 96.3	978 685 581 499 542 438 399

The results further show that more teenage girls age 15-19 (29 percent) are in formal marriage than teenage boys (7 percent). The proportion of married women increases rapidly from 29 percent among women age 15-19 to 77 percent among those age 20-24 and more than 90 percent among women age 25-44. A slightly

lower percentage of women age 45-49 are in a union, primarily due to widowhood at older ages. Among men, the percentage married also rapidly increases from 7 percent in the youngest age group to 45 percent among those age 20-24 and 81 percent among those age 25-29; marriage is nearly universal among those age 30 and above.

The proportion never married decreases sharply with age for both women and men. Among women, the proportion decreases from 71 percent in the 15-19 age group to less than 2 percent among those age 35 or above; among men, it decreases from 93 percent in the 15-19 age group to less than 2 percent in the 40-49 age group.

The proportion never married has increased gradually over time, from 18 percent in 2001 to 21 percent in 2011 among women and from 32 percent in 2001 to 35 percent in 2011 among men. Figure 4.1 shows the trend in proportion never married for women and men age 15-19 and 20-24. Among women age 15-19 the proportion never married increased from 60 percent in 2001 to 71 percent in 2011 and for men it increased from 89 percent to 93 percent. A similar trend can be seen for women and men in the 20-24 age group.



# 4.2 POLYGYNY

Marital unions are predominantly of two types, those that are monogamous and those that are polygynous. The distinction has social significance and probable fertility implications, although the association between union type and fertility is complex and not well understood. Polygyny, the practice of having more than one wife, has connotations for the frequency of sexual intercourse and thus may have an effect on fertility. The extent of polygyny was measured in the 2011 NDHS by asking all currently married female respondents whether their husband or partner had other wives (co-wives) and, if so, how many. Currently married men were also asked whether they had one or more wives or partners with whom they were living.

Table 4.2 shows the percent distribution of currently married women with co-wives and the percentage of currently married men with two or more wives. The data show that the majority of Nepalese women and men are in monogamous unions. Four percent of married women and 2 percent of married men are in polygynous unions. At least 6 percent of women age 35 or above report that they have co-wives. In contrast, less than 1 percent of men age 20-39 report having more than one wife, with this percentage rising to 2 percent among men age 40-44 and 5 percent among men age 45-49.

Polygyny is more practiced in the hill zone, with 5 percent of women and 2 percent of men reporting being in a polygynous union. Polygyny is highest in the Eastern hill subregion (6 percent of women and 3 percent of men). Education is negatively associated with polygyny, with the proportion of women in a

polygynous union decreasing from 6 percent among those with no education to 1 percent among those with a School Leaving Certificate (SLC) or above. There are no notable differences among men by education.

Although the proportion of currently married women in a polygynous union declined between 1996 and 2001 (from 6 percent to 4 percent), there has been little change in the last decade. The proportion of currently married men who have more than one wife also has changed only minimally during the past 10 years.

Table 4.2 Number of co-wives and wives

	Won	000	Men			
Background	Percentage	Number of	Percentage	Number of		
characteristic	with co-wives	women	with 2+ wives	men		
Age						
15-19	1.1	792	0.0	67		
20-24	2.3	1,761	0.9	306		
25-29	3.0	1,914	0.6	471		
30-34	3.3	1,659	0.9	459		
35-39	6.0	1,461	0.6	516		
40-44	6.5	1,190	2.4	423		
45-49	6.6	832	5.2	384		
Residence						
Urban	3.6	1,261	1.4	425		
Rural	4.0	8,346	1.7	2,201		
Ecological zone						
Mountain	3.9	630	0.5	179		
Hill	4.7	3,784	2.2	1,057		
Terai	3.4	5,193	1.4	1,390		
Development region						
Eastern	3.6	2,293	0.9	607		
Central	4.0	3,210	2.3	950		
Western	4.2	2,031	1.8	482		
Mid-western	4.5	1,149	1.3	340		
Far-western	3.8	925	1.2	247		
Subregion						
Eastern mountain	3.1	169	0.8	42		
Central mountain	4.1	190	0.0	50		
Western mountain	4.3	271	0.6	87		
Eastern hill	6.3	702	2.8	191		
Central hill	4.8	1,103	2.3	385		
Western hill	4.7	1,164	1.9	270		
Mid-western hill Far-western hill	3.8 2.6	510	1.4 2.3	133		
Eastern terai	2.0	305 1,421	2.3	77 374		
Central terai	3.5	1,918	2.4	515		
Western terai	3.6	867	1.7	211		
Mid-western terai	5.3	499	1.4	157		
Far-western terai	4.4	488	0.9	133		
Education						
No education	5.5	4,580	1.4	504		
Primary	3.5	1,844	1.9	640		
Some secondary	2.9	1,833	2.1	799		
SLC and above	0.9	1,350	1.1	684		
Wealth guintile						
Lowest	4.6	1,664	0.9	439		
Second	3.8	1,846	1.7	452		
Middle	4.6	2,022	1.5	569		
Fourth	3.8	2,052	2.5	541		
Highest	3.2	2,023	1.6	626		
Total	4.0	9,608	1.7	2,626		

# 4.3 AGE AT FIRST MARRIAGE

Whether or not the start of marriage coincides with the initiation of sexual intercourse, and thus the beginning of exposure to the risk of pregnancy, it is an important social and demographic indicator and, in most societies, represents the point in a person's life when childbearing first becomes acceptable. Duration of exposure to the risk of pregnancy depends primarily on the age at which women first marry. Women who marry early, on average, are more likely to have their first child at a young age and give birth to more children overall, contributing to higher fertility.

Table 4.3 shows the percentage of women and men who have married by specific ages, according to current age. Age at first marriage is defined as the age at which the respondent began living with her or his first spouse/partner. Marriage occurs relatively early in Nepal; among women age 25-49, 55 percent were married by age 18, and 74 percent were married by age 20. The median age at first marriage among women age 25-49 is 17.5 years. The proportion of women married by age 15 declines from 24 percent among those age 45-49 to 5 percent among those age 15-19 indicating clear evidence of a rising age at first marriage.

Table 4.3 A	ge at first	marriag
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Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Nepal 2011

	Р	ercentage fi	rst married	by exact ag	le:	Percentage never	Number of	Median age at first			
Current age	15	18	20	22	25	married	respondents	marriage			
WOMEN											
15-19	5.0	na	na	na	na	71.0	2,753	а			
20-24	10.1	40.7	59.8	na	na	22.6	2,297	18.9			
25-29	15.3	50.9	69.2	80.4	89.7	7.0	2,101	17.9			
30-34	16.6	55.1	73.5	84.7	93.0	2.0	1,734	17.6			
35-39	18.7	56.5	74.4	86.4	95.4	1.4	1,557	17.4			
40-44	19.5	59.4	78.1	87.4	95.5	1.2	1,285	17.2			
45-49	23.5	58.7	76.7	87.2	95.0	1.3	947	17.2			
20-49	16.2	52.0	70.5	na	na	7.6	9,921	17.8			
25-49	18.0	55.4	73.7	84.6	93.2	3.1	7,624	17.5			
				MEN							
15-19	0.0	na	na	na	na	92.9	978	а			
20-24	0.0	11.1	23.7	na	na	54.4	685	а			
25-29	0.0	17.1	33.8	49.5	70.3	17.3	581	22.1			
30-34	0.0	19.5	37.7	50.5	66.9	6.4	499	21.9			
35-39	0.0	16.7	36.3	53.2	73.4	2.4	542	21.6			
40-44	0.0	20.5	39.2	56.6	76.8	1.4	438	21.0			
45-49	0.1	23.0	37.5	55.2	79.7	0.2	399	21.3			
20-49	0.0	17.3	33.9	na	na	16.7	3,143	а			
25-49	0.0	19.1	36.7	52.7	73.0	6.2	2,458	21.6			

Note: Age at first marriage is defined as the age at which the respondent began living with her/his first spouse or partner.

na = Not applicable due to censoring

a = Omitted because less than 50 percent of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

Men in Nepal marry more than four years later than women. The median age at first marriage among men age 25-49 is 21.6 years. Thirty-four percent of men age 25-29 were married by age 20, compared with 69 percent of women in the same age group. Only 11 percent of men age 20-24 were married by age 18, as compared with 41 percent of women in the same age group. By age 25, 80 percent of men age 45-49 are married, compared with 95 percent of women.

# 4.4 MEDIAN AGE AT FIRST MARRIAGE

Table 4.4 shows the median age at first marriage for women age 20-49, women age 25-49, and men age 25-49 according to background characteristics.

Urban women age 25-49 marry one year later than rural women, and women from the hill zone marry about one year later than women from the terai and mountain zones. Similarly, there is a two-year difference in median age at marriage between women age 25-49 living in the Eastern development region (18.7 years) and women living in the Far-western region (16.6 years). There is a three-year difference in median age at first marriage between women age 25-49 living in the Central terai (16.1 years) and women living in the Eastern hill subregion (19.3 years). A positive association is seen between median age at first marriage and level of education. Women with an SLC and higher education marry five years later than those with no education (21.8 years and 16.6 years, respectively). In addition, women from the highest wealth quintile marry about two years later than those from the other quintiles. Education and wealth clearly are delaying factors for age at first marriage.

A similar pattern is seen among men age 25-49. Urban men marry two years later than rural men. Men from the hill zone marry one year later than men from the terai and mountain zones. Men in the Eastern region marry nearly three years later than men in the Far-western and Mid-western regions. Median age at first marriage among men living in the Far-western hill subregion is three years earlier than among men in the Central hill subregion.

Education and wealth quintile have the same association on age at first marriage for men as for women.

Table 4.4	Median	age at	first	marriage	e by	background
characteri	stics	-		-		-

Median age at first marriage among women age 20-49 and age 25-49, and median age at first marriage among men age 25-49, according to background characteristics, Nepal 2011

Background	Wo	men age:	Men age
characteristic	20-49	25-4	
Residence			
Urban	19.0	18.5	
Rural	17.7	17.4	4 21.2
Ecological zone			
Mountain Hill	17.5 18.4	17.4 18.0	
Terai	16.4	17.2	
	17.0	17.4	21.0
Development region Eastern	18.9	18.7	7 22.6
Central	17.4	17.0	
Western	17.9	17.7	
Mid-western	17.2	17.1	
Far-western	17.0	16.6	
Subregion			
Eastern mountain	19.1	19.2	2 22.3
Central mountain	17.7	17.4	4 20.3
Western mountain	16.4	16.3	
Eastern hill	19.5	19.3	
Central hill	19.4	18.8	
Western hill	18.0	17.8	
Mid-western hill Far-western hill	17.0 16.7	16.9 16.5	
Eastern terai	18.6	18.3	
Central terai	16.5	16.1	
Western terai	17.9	17.5	
Mid-western terai	17.5	17.3	
Far-western terai	17.4	16.9	
Education			
No education	16.6	16.6	6 20.1
Primary	17.4	17.3	3 20.5
Some secondary	18.5	18.5	
SLC and above	а	21.8	в а
Wealth quintile			
Lowest	17.0	17.0	
Second	17.2	17.1	
Middle	17.2	17.0	
Fourth Highest	17.9 19.7	17.5 19.1	
0			
Total	17.8	17.5	5 21.6
Note: Age at first marri			
the respondent began partner.	living wit	n ner or h	is first spouse of
a = Omitted becaus	e less	than 50	percent of the

a = Omitted because less than 50 percent of the respondents began living with their spouse or partner for the first time before reaching the beginning of the age group

SLC = School Leaving Certificate

There has been a marked increase in median age at marriage among women age 20-49 over the last 15 years, from 16.4 years in 1996 to 17.8 years in 2011. In case of men age 25-49, the median age at marriage increased over the last 5 years, from 20.2 years in 2006 to 21.6 years in 2011. This is another clear indication of a continuing shift to later marriage in Nepal for both men and women.

## 4.5 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is often used as a proxy for the onset of women's exposure to the risk of pregnancy. However, because some women are sexually active before marriage, the age at which women initiate sexual intercourse more precisely marks the beginning of their exposure to pregnancy. Table 4.5 shows the percentage of women and men who had first sexual intercourse by specific ages and the median age at first intercourse, irrespective of marital status. This information allows an assessment of the age at which women and men start having sexual intercourse and its trend across age cohorts.

### Table 4.5 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, Nepal 2011

	Perc	entage who	ourse	Percentage who never had sexual		Median age at first sexual					
Current age	15	18	20	22	25	intercourse	Number	intercourse			
WOMEN											
15-19	4.6	na	na	na	na	71.0	2,753	а			
20-24	9.9	40.4	58.7	na	na	22.6	2,297	19.0			
25-29	14.7	49.4	67.5	79.2	88.0	7.0	2,101	18.1			
30-34	14.4	53.0	71.8	82.7	91.1	2.0	1,734	17.7			
35-39	17.0	55.4	73.1	84.8	93.6	1.5	1,557	17.5			
40-44	17.1	57.0	75.7	84.7	92.3	1.3	1,285	17.4			
45-49	21.1	57.4	75.8	85.8	93.9	1.3	947	17.4			
20-49	14.8	50.6	68.9	na	na	7.6	9,921	17.9			
25-49	16.3	53.7	72.0	na	na	3.1	7,624	17.7			
15-24	7.0	na	na	na	na	49.0	5,050	а			
				MEN							
15-19	3.7	na	na	na	na	79.3	978	а			
20-24	2.2	22.2	43.6	na	na	32.4	685	а			
25-29	2.1	25.0	44.5	62.0	81.2	9.2	581	20.6			
30-34	3.0	27.0	49.4	60.7	76.4	2.9	499	20.1			
35-39	2.2	24.2	45.0	58.7	76.4	2.0	542	20.7			
40-44	2.5	25.8	44.1	62.1	77.2	1.4	438	20.6			
45-49	1.5	24.0	41.9	58.2	79.5	0.1	399	20.8			
20-49	2.2	24.6	44.8	na	na	9.8	3,143	а			
25-49	2.3	25.2	45.1	na	na	3.5	2,458	20.5			
15-24	3.1	na	na	na	na	59.9	1,663	а			

na = Not applicable due to censoring

a =Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group

Sixteen percent of women age 25-49 had first sexual intercourse by age 15, 54 percent by age 18, and 72 percent by age 20. The median age at first intercourse among women age 25-49 (17.7 years) is only marginally higher than the median age at marriage (17.5 years), suggesting that Nepalese women in general initiate sexual intercourse at the time of their first marriage, with few exceptions.

The median age at first sexual intercourse among men age 25-49 (20.5 years) is three years higher than among women in the same group (17.7 years), mostly because men tend to marry later than women. Two percent of men age 25-49 had first sexual intercourse by age 15, 25 percent by age 18, and 45 percent by age 20, much later than among women age 25-49. The median age at first sexual intercourse among men age 25-49 is one year earlier than the median age at marriage, suggesting premarital sexual intercourse among men. Furthermore, the data show that 3 percent of women and 4 percent of men age 25-49 have never had sexual intercourse. It is noteworthy that half of women and three-fifths of men age 15-24 have not had sexual intercourse.

### 4.6 MEDIAN AGE AT FIRST SEXUAL INTERCOURSE

Table 4.6 shows median age at first sexual intercourse among women and men age 25-49 by background characteristics. The variation in the median age at first sexual intercourse among women according to background characteristics is nearly identical to the variation in the median age at first marriage, and therefore it is not discussed separately here.

For the most part, differences in the median age at first sexual intercourse among men age 25-49 by background characteristics are similar to those discussed for median age at first marriage. However, it is worth noting that the differences in median age at sexual intercourse by development region and subregion are substantial. Men in the Mid-western region (19.0 years) commence sexual intercourse 2.7 years earlier than men in the Eastern region (21.7 years), two years earlier than men in the Central region (20.9 years) and one year earlier than men in the Western (20.2 years) and Far-western (19.9 years) regions. Men residing in the Western mountain subregion (19.2 years) initiate sexual intercourse three years earlier than men in the Eastern mountain (21.9 years) and Central hill (22.1 years) subregions. Men with an SLC or higher education initiate sexual intercourse about four years later than men with no education (23.2 years and 19.4 years, respectively). Similarly, men from the highest wealth quintile (22.8 years) initiate sexual intercourse about three years later than men from the lowest and second quintiles (19.6 years each).

# 4.7 RECENT SEXUAL ACTIVITY

In the absence of contraception, the possibility of pregnancy is related to the frequency of sexual intercourse. Thus, information on intercourse is important for refining measurement of exposure to pregnancy. All women and men were asked how long ago their last sexual contact occurred. Tables 4.7.1 and 4.7.2 show the percent distribution of women and men age 15-49 by the timing of their last sexual intercourse, according to background characteristics.

Table 4.6 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, and median age at first sexual intercourse among men age 25-49, according to background characteristics, Nepal 2011

	Momo	en age:	
Background	20-49	25-49	_ Men age 25-49
Characteristic	20-49	23-49	25-49
<b>Residence</b> Urban Rural	19.1 17.8	18.6 17.5	22.5 20.2
<b>Ecological zone</b> Mountain Hill Terai	17.6 18.5 17.6	17.5 18.2 17.3	20.1 21.0 20.3
Development region Eastern Central Western Mid-western Far-western	19.0 17.6 18.0 17.4 17.1	18.9 17.2 17.8 17.3 16.7	21.7 20.9 20.2 19.0 19.9
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	19.2 17.9 16.6 19.5 19.6 18.1 17.2 16.8 18.7 16.6 17.9 17.7 17.5	19.2 17.7 16.5 19.3 19.1 17.9 17.1 16.6 18.6 16.2 17.6 17.5 17.0	21.9 19.6 19.2 21.4 22.1 20.7 19.2 19.9 21.9 20.1 19.6 18.8 19.9
Education No education Primary Some secondary SLC and above	16.7 17.5 18.6 a	16.7 17.5 18.6 21.8	19.4 19.7 20.1 23.2
Wealth quintile Lowest Second Middle Fourth Highest Total	17.2 17.4 17.4 18.1 19.8 17.9	17.1 17.2 17.1 17.7 19.3 17.7	19.6 19.6 19.3 20.9 22.8 20.5
10101	11.5		20.0

a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group SLC = School Leaving Certificate

Table 4.7.1 shows that half of women age 15-49 were sexually active during the four weeks preceding the survey. Eighteen percent had been sexually active in the 12 months preceding the survey, but not in the past month, and 12 percent had not been sexually active for one or more years. One in every five women (21 percent) has never had sexual intercourse. The percentage of women age 15-19 who reported never having had sexual intercourse increased from 68 percent in the 2006 NDHS to 71 percent in the 2011 NDHS.

The proportion of women who were sexually active in the four weeks preceding the survey increases with age; from 18 percent at age 15-19 to 68 percent by age 40-44, and then decreases to 59 percent at age 45-49. The majority of women age 15-19 have never had sexual intercourse, which is not surprising. Also as expected, practically all never-married women have never had sexual intercourse (99 percent). About two-thirds (65 percent) of women who are currently in a union were sexually active in the four weeks preceding the survey. Women married for less than 15 years were less likely to be sexually active in the four weeks preceding the survey than women married for longer periods. Women who have been married more than once were much more likely than women married just once to be sexually active in the four weeks preceding the survey.

### Table 4.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Nepal 2011

		f last sexual inte		Never had		
Background characteristic	Within the past 4 weeks	Within 1 year <sup>1</sup>	One or more years	sexual intercourse	Total	Number of women
Age						
15-19	17.7	9.2	2.2	71.0	100.0	2,753
20-24	43.8	22.7	10.9	22.6	100.0	2,297
25-29	56.5	22.2	14.4	7.0	100.0	2,101
30-34	63.7	21.2	13.1	2.0	100.0	1,734
35-39	64.7	16.9	17.0	1.5	100.0	1,557
40-44 45-49	67.5 59.4	15.8 20.6	15.4 18.6	1.3 1.3	100.0 100.0	1,285 947
Marital status		2010	1010		10010	0.11
Never married	0.4	0.1	0.2	99.3	100.0	2,708
Married	64.6	23.4	11.9	0.1	100.0	9,608
Divorced/separated/widowed	0.3	6.5	92.3	0.9	100.0	358
Marital duration <sup>2</sup>						
0-4 years	60.3	29.6	9.5	0.6	100.0	1,975
5-9 years	59.9	25.4	14.6	0.0	100.0	1,722
10-14 years	60.3	24.8	14.9	0.0	100.0	1,593
15-19 years	69.4	19.1	11.5	0.0	100.0	1,423
20-24 years	70.0	16.7	13.3	0.0	100.0	1,144
25+ years	69.8	20.4	9.7	0.0	100.0	1,301
Married more than once	73.3	21.6	5.2	0.0	100.0	451
Residence						
Urban	49.4	14.7	8.5	27.4	100.0	1,819
Rural	49.0	18.4	12.2	20.3	100.0	10,855
Ecological zone						
Mountain	55.3	16.4	9.6	18.7	100.0	805
Hill	47.1	17.8	12.6	22.5	100.0	5,090
Terai	49.8	18.1	11.2	20.8	100.0	6,779
Development region						
Eastern	46.6	15.9	14.9	22.5	100.0	3,057
Central	53.1	16.1	9.0	21.7	100.0	4,236
Western	43.8	20.8	14.9	20.5	100.0	2,660
Mid-western	53.5	19.0	8.5	19.1	100.0	1,478
Far-western	47.5	21.6	9.4	21.6	100.0	1,242
Subregion						
Eastern mountain	46.1	14.8	15.1	24.1	100.0	229
Central mountain	49.4	18.0	8.6	24.0	100.0	258
Western mountain	66.7	16.3	6.5	10.5	100.0	319
Eastern hill	44.6	16.4	15.2	23.8	100.0	956
Central hill	53.7	10.7	8.7	26.8	100.0	1,563
Western hill	41.6	23.0	16.2	19.2	100.0	1,513
Mid-western hill	49.8	21.7	10.1	18.5	100.0	649
Far-western hill	44.1	23.4	11.7	20.8	100.0	409
Eastern terai	47.6	15.8	14.8	20.8	100.0	1,873
Central terai	53.1	19.4	9.3	18.2	100.0	2,415
Western terai	46.7	17.8	13.2	22.3	100.0	1,147
Mid-western terai Far-western terai	53.0 45.9	17.1 21.6	7.9 8.1	21.9 24.3	100.0 100.0	668 676
Education	10.0	21.0	0.1	2 %0	100.0	0/0
No education	60.2	20.4	14.7	4.7	100.0	5,045
Primary	50.6	21.3	13.9	14.2	100.0	2,209
Some secondary					100.0	
SUC and above	37.2 39.3	14.2 14.1	9.4 6.0	39.2 40.6	100.0	3,088 2,331
			0.0			2,001
Wealth quintile Lowest	50.4	19.1	12.3	18.1	100.0	2,120
Second	48.6	20.1	11.2	20.0	100.0	2,393
Middle	48.5	20.1	12.0	19.5	100.0	2,600
Fourth	46.6	17.6	13.9	21.9	100.0	2,000
Highest	40.0 51.4	13.4	9.1	21.9 26.1	100.0	2,722 2,839
-						
Total	49.1	17.9	11.7	21.4	100.0	12,674

<sup>1</sup> Excludes women who had sexual intercourse within the last four weeks

<sup>2</sup> Excludes women who are not currently married

SLC = School Leaving Certificate

The results show that there is no noticeable variation in sexual activity within the last four weeks preceding the survey by urban-rural residence. Recent sexual activity is relatively lower among women who live in the hill zone (47 percent) than women who live in the terai (50 percent) and mountain (55 percent) zones. Forty-four percent of women living in the Western region had recent sexual intercourse, compared with 54 percent in the Mid-western region and 53 percent in the Central region. Recent sexual intercourse is highest in the Western mountain subregion (67 percent) and lowest in the Western hill subregion (42 percent). Women

with no education (60 percent) are more likely to have been sexually active in the past four weeks than those with a primary education (51 percent). Women with some secondary education and an SLC and higher education are least likely to have been sexually active in the past four weeks (37 percent and 39 percent, respectively).

More than half (57 percent) of men age 15-49 were sexually active in the four weeks preceding the survey, 12 percent were sexually active in the past year but not in the past four weeks, and 5 percent had not been sexually active for one or more years (Table 4.7.2). One in four men had never had sexual intercourse.

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Nepal 201								
	Timing	of last sexual inte	ercourse	Never had				
Background characteristic	Within the past 4 weeks	Within 1 year <sup>1</sup>	One or more years	sexual intercourse	Total	Number of men		
Age								
15-19	7.8	8.0	5.0	79.3	100.0	978		
20-24	43.3	17.3	7.0	32.4	100.0	685		
25-29	72.5	13.7	4.5	9.2	100.0	581		
30-34 35-39	84.1 87.5	9.1 7.5	3.9 3.0	2.9 2.0	100.0 100.0	499 542		
40-44	83.6	11.8	3.2	1.4	100.0	438		
45-49	78.4	15.5	6.0	0.1	100.0	399		
Marital status								
Never married	3.7	12.4	8.4	75.4	100.0	1,433		
Married	87.9	10.6	1.5	0.0	100.0	2,626		
Divorced/separated/widowed	(8.3)	(30.6)	(61.0)	(0.0)	100.0	62		
Marital duration <sup>2</sup>		10.0						
0-4 years	85.8	13.2	0.9	0.1	100.0	536		
5-9 years	89.1	10.4	0.5	0.0	100.0	460		
10-14 years 15-19 years	92.3 87.6	7.3 9.6	0.4 2.8	0.0 0.0	100.0 100.0	407 391		
20-24 years	88.3	8.7	2.0	0.0	100.0	328		
25+ years	84.4	15.3	0.4	0.0	100.0	261		
Married more than once	86.3	10.0	3.7	0.0	100.0	243		
Residence								
Urban	51.3	13.8	4.1	30.8	100.0	717		
Rural	58.7	11.1	4.9	25.3	100.0	3,404		
Ecological zone								
Mountain	67.0	9.7	2.6	20.7	100.0	245		
Hill Terai	56.7 56.9	12.8 10.8	4.3 5.4	26.2 26.9	100.0 100.0	1,658 2,218		
	00.0	10.0	0.4	20.5	100.0	2,210		
Development region Eastern	52.3	13.9	4.7	29.1	100.0	996		
Central	57.9	12.6	5.2	24.3	100.0	1,448		
Western	56.8	9.9	4.6	28.7	100.0	798		
Mid-western	64.9	9.4	4.8	20.9	100.0	493		
Far-western	60.8	7.6	3.8	27.9	100.0	385		
Subregion								
Eastern mountain	56.9	12.4	1.7	29.0	100.0	66		
Central mountain	64.1	10.9	3.2	21.7	100.0	69		
Western mountain	74.8	7.3	2.8	15.1	100.0	110		
Eastern hill Central hill	54.9 52.8	13.7 17.2	5.0 3.9	26.3 26.1	100.0 100.0	293 616		
Western hill	57.3	9.8	4.6	28.4	100.0	440		
Mid-western hill	67.3	9.1	4.7	18.9	100.0	189		
Far-western hill	62.7	4.8	2.7	29.8	100.0	120		
Eastern terai	50.6	14.2	4.9	30.3	100.0	638		
Central terai	61.5	9.0	6.4	23.1	100.0	763		
Western terai	56.1	10.0	4.6	29.2	100.0	358		
Mid-western terai Far-western terai	60.6 56.4	9.6 9.8	5.2 4.8	24.6 29.0	100.0 100.0	242 217		
	55.4	0.0	<del>т.</del> 0	20.0	100.0	211		
Education No education	77.5	12.1	5.0	5.3	100.0	567		
Primary	69.6	12.3	4.2	13.9	100.0	814		
Some secondary	49.8	10.1	4.4	35.7	100.0	1,437		
SLC and above	49.5	12.4	5.5	32.7	100.0	1,303		
Wealth quintile								
Lowest	63.6	10.3	4.9	21.2	100.0	610		
Second	60.2	11.2	3.4	25.2	100.0	695		
Middle	63.5	9.7	4.2	22.6	100.0	830		
Fourth Highest	49.0 54.6	13.9 11.9	7.7 3.6	29.4 29.9	100.0 100.0	920 1,066		
-								
Total 15-49	57.4	11.5	4.8	26.2	100.0	4,121		

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Excludes men who had sexual intercourse within the last four weeks
 <sup>2</sup> Excludes men who are not currently married
 SLC = School Leaving Certificate

Men in urban areas (51 percent), those in the hill zone and terai (57 percent each), those in the Eastern development region (52 percent), and those in the Eastern terai subregion (51 percent) were less likely to have been sexually active in the four weeks prior to the survey than their counterparts in the other areas. Men with some secondary education and SLC and higher level of education (50 percent each) and men in the fourth wealth quintile (49 percent) also reported less sexual activity in the four weeks prior to the interview than their counterparts.

A comparison of data from the 2001, 2006, and 2011 NDHS for currently married women shows gradual decreases in the percentage of women sexually active in the four weeks preceding the survey, from 71 percent in 2001 to 70 percent in 2006 and 65 percent in 2011. However, married men show the reverse pattern, with an increase from 82 percent in 2001 to 88 percent in 2006 and in 2011.

The 2011 NDHS data show that 4 percent of never-married men were sexually active in the four weeks preceding the survey, as compared with less than 1 percent of never-married women. Overall, one in four never-married men had ever had sexual intercourse, compared with one percent of never-married women.

### Key Findings:

- The total fertility rate for the three years preceding the survey is 2.6 births per woman, with rural women having about one child more than urban women.
- Fertility has decreased from 4.6 births per woman in 1996 to 2.6 births per woman in 2011, a two-child decline in the past 15 years.
- Childbearing begins early in Nepal, with almost one quarter of women giving birth by age 18 and nearly half by age 20.
- Seventeen percent of adolescent women age 15-19 are already mothers or pregnant with their first child. In the last five years, teenage pregnancy has fallen by 10 percent.
- Half of births occur within three years of a previous birth, with 21 percent occurring within 24 months.

A major objective of the 2011 NDHS was to examine fertility levels, trends, and differentials in Nepal. This is important in view of the government's policy to reduce the total fertility rate to replacement level by the end of 2017 through empowerment of women and poverty alleviation (National Planning Commission, 2007). Fertility is one of the three principal components of population dynamics that determine the size, structure, and composition of the population in any country. This chapter focuses on a number of fertility indicators including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women begin childbearing. Birth intervals are important because short intervals are associated with high childbood mortality. The age at which childbearing begins can also have a major impact on the health and wellbeing of both the mother and the child.

To generate data on fertility, a pregnancy history was collected from each woman interviewed in the 2011 NDHS. Women were asked to report on the total number of sons and daughters to whom they had given birth in their lifetime. To ensure that all information was reported, women were asked separately about children still living at home, those living elsewhere, and those who had died. The sex, date of birth, and survival status of each child were obtained, and age at death for dead children was recorded. In addition to information on live births, the pregnancy history section incorporated questions on all pregnancies that did not end in a live birth, including information on the month and year the pregnancy ended, the duration of the pregnancy, and whether something was done deliberately to end the pregnancy.

# 5.1 CURRENT FERTILITY

Measures of current fertility are presented in Table 5.1 for the three-year period preceding the survey, corresponding to the calendar period 2008-2010. A three-year period was chosen for calculating these rates to provide the most current information while also allowing the rates to be calculated for a sufficient number of cases so as not to compromise the statistical precision of the estimate. Age-specific fertility rates (ASFRs), expressed as the number of births per thousand women in a specified age group, show the age pattern of fertility. Numerators for ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey classified according to the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period. The total fertility rate (TFR) is the number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (15-49 years). The general fertility rate (GFR) is the number of live births per 1,000 population during a specified period.

Table 5.1 shows current fertility in Nepal at the national level and by urban-rural residence. The TFR for the three years preceding the 2011 NDHS is 2.6 births per woman. Fertility is considerably higher in rural areas (2.8 births per woman) than in urban areas (1.6 births per woman), where fertility is below replacement level. As the ASFRs show, the pattern of higher rural fertility is prevalent in all age groups. The urban-rural difference in fertility is most pronounced for women in the 35-39 age group (16 births per 1,000 women in urban areas versus 39 births per 1,000 women in rural areas).

The overall age pattern of fertility, as reflected in the ASFRs, indicates that childbearing begins early. Fertility is low among adolescents, increases to a peak of 187 births per 1,000 among women age 20-24, and declines thereafter.

### 5.2 FERTILITY DIFFERENTIALS

This section examines the association between a woman's background characteristics and her fertility. Table 5.2 presents differentials in TFRs, the percentage of women 15-49 who are currently

#### Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Nepal 2011

_	Resid	_	
Age group	Urban	Rural	Total
15-19	42	87	81
20-24	135	197	187
25-29	82	134	126
30-34	38	78	71
35-39	16	39	36
40-44	0	16	14
45-49	2	5	5
TFR (15-49)	1.6	2.8	2.6
GFR	60	102	96
CBR	16.6	25.5	24.3

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview. TFR: Total fertility rate expressed per woman

GFR: General fertility rate expressed per woman 1,000 women age 15-44

CBR: Crude birth rate expressed per 1,000 population

pregnant, and the mean number of children ever born to women age 40-49 by urban-rural residence, ecological zone, development region, education, and wealth quintile. There are considerable differentials in fertility among ecological zones, with fertility ranging from a low of 2.5 births per woman in the terai to a high of 3.4 births per woman in the mountain zone. The TFR ranges from 2.5 births per woman in the Eastern, Central, and Western regions to 3.2 births per woman in the Mid-western region. Level of fertility is inversely related to women's educational attainment, decreasing rapidly from 3.7 births among women with no education to 1.7 births among women with a School Leaving Certificate (SLC) or above. Fertility is also associated with wealth quintile. Women in the lowest wealth quintile have an average of 4.1 births, nearly three times as many as women in the highest quintile (1.5 births).

Table 5.2 also presents a crude assessment of trends in the various subgroups by comparing current fertility with a measure of completed fertility: the mean number of children ever born to women age 40-49. The mean number of children ever born to older women who are nearing the end of their reproductive period is an indicator of average completed fertility of women who began childbearing during the three decades preceding the survey. If fertility remained constant over time and the reported data on both children ever born and births during the three years preceding the survey are reasonably accurate, the TFR and the mean number of children ever born to women 40-49 are expected to be similar. When fertility levels have been falling, the TFR will be substantially lower than the mean number of children ever born among women age 40-49. The comparison suggests that fertility has fallen by nearly two births during the past 15 years, from 4.3 births per woman to 2.6 births per woman. Fertility has declined in both urban and rural areas, in all regions, at all educational levels, and for all wealth quintiles. The difference between current and completed fertility is highest in the Far-western region (2.1 births), in urban areas (1.7 births), and among women in the fourth wealth quintile (1.8 births).

The percentage of women who reported being pregnant at the time of the survey is also presented in Table 5.2. This percentage may be underreported since women may not be aware of a pregnancy, especially at the early stages, and some women who are early in their pregnancy may not want to reveal that they are pregnant. Five percent of women were pregnant at the time of the survey. Rural women are slightly more likely to be pregnant than urban women. Regionally, the proportion of women who are currently pregnant is highest in the Mid-western region and lowest in the Western region. The proportion of women currently pregnant varies by education, but the pattern is mixed. The percentage currently pregnant ranges from a low of 4 percent among women in the highest wealth quintile to a high of 6 percent among women in the lowest wealth quintile.

#### Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Nepal 2011

Background characteristic	Total fertility rate	Percentage of women age 15- 49 currently pregnant	Mean number of children ever born to women age 40-49
<b>Residence</b> Urban Rural	1.6 2.8	4.0 5.1	3.3 4.4
<b>Ecological zone</b> Mountain Hill Terai	3.4 2.6 2.5	5.7 4.7 5.0	4.8 4.2 4.2
Development region Eastern Central Western Mid-western Far-western	2.5 2.5 2.5 3.2 <sup>a</sup> 2.8	5.5 5.1 3.5 6.5 4.0	4.0 4.2 4.0 5.0 4.9
Education No education Primary Some secondary SLC and above	3.7 2.7 <sup>a</sup> 2.1 <sup>b</sup> 1.7 <sup>b</sup>	4.5 5.2 4.6 5.8	4.6 4.0 2.9 2.2
Wealth quintile Lowest Second Middle Fourth Highest	4.1 3.1 2.7 2.1 1.5	6.1 5.0 5.4 4.5 3.9	5.5 4.7 4.3 3.9 3.0
Total	2.6	4.9	4.3

Note: Total fertility rates are for the period 1-36 months prior to the interview. SLC = School Leaving Certificate <sup>a</sup> One or more of the components of age-specific fertility rates are based on

<sup>b</sup> One or more of the components of age-specific fertility rates are based on
 <sup>b</sup> One or more of the components of age-specific fertility rates are based on

fewer than 125 woman-years of exposure.

## 5.3 FERTILITY TRENDS

In addition to the comparison of current and completed fertility, trends in fertility can be assessed in two other ways. First, fertility trends can be investigated using retrospective data on pregnancy histories collected in the 2011 NDHS. Second, the TFR from the 2011 NDHS can be compared with estimates obtained in earlier surveys.

Trends in fertility over time can be examined by comparing age-specific fertility rates from the 2011 NDHS for successive five-year periods preceding the survey, as presented in Table 5.3.1. Because women age 50 or above were not interviewed in the survey, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey because these women would have been over age 50 at the time of the survey and therefore not eligible to be interviewed. Nonetheless, the results in Table 5.3.1 show that fertility has dropped substantially among all age groups over

#### Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Nepal 2011

Mother's	Numb	per of years	preceding s	urvey
age at birth	0-4	5-9	10-14	15-19
15-19	87	122	127	132
20-24	194	218	278	278
25-29	128	164	208	244
30-34	71	89	142	[172]
35-39	38	60	[95]	
40-44	19	[27]		
45-49	[5]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview.

the past two decades. The decline is steepest among the cohort age 30-34, with a 50 percent decline between the period 10-14 years before the survey and the period 0-4 years before the survey.

Age group	(1993-1995)	(1998-2000)	(2003-2005)	(2008-2010)
	NFHS 1996 <sup>a</sup>	NDHS 2001 <sup>b</sup>	NDHS 2006 <sup>c</sup>	NDHS 2011
Age-specific and 2011	c and total ferti	lity rates (TFRs	), Nepal 1996, 2	2001, 2006,

Age group	(1993-1995)	(1998-2000)	(2003-2005)	(2008-2010)
15-19	127	110	98	81
20-24	266	248	234	187
25-29	229	205	144	126
30-34	160	136	84	71
35-39	94	81	48	36
40.44	37	34	16	14
45-49	15	7	2	5
TFR	4.6	4.1	3.1	2.6

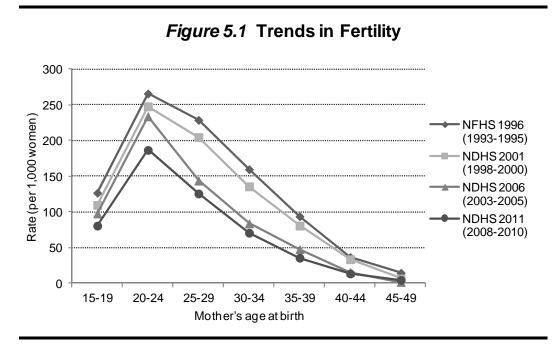
Note: Age-specific fertility rates are per 1,000 women. Rates refer to the three-year period prior to each survey. <sup>a</sup> Pradhan et al., 1997:37

<sup>b</sup> Ministry of Health, New ERA, and ORC Macro, 2002:58

<sup>o</sup> Ministry of Health and Population, New ERA, and Macro International Inc., 2007:63

Table 5.3.2 and Figure 5.1 compare fertility trends from estimates obtained in the 1996, 2001, and 2006 NDHS with information gathered in the 2011 NDHS. Fertility declined from 4.6 births per woman in the 1996 NFHS to 2.6 births per woman in the 2011 NDHS-a drop of two births per woman in the past 15 years. The decline in fertility is most pronounced in the five years between 2001 and 2006 (a one-child decline). Fertility has declined in every age group over the past 15 years, with largest decline seen among women 25-34 years. But over the past 5 years the largest decline is observed among women 20-24 years. Many factors may have contributed to this precipitous decline in Nepal, including improved communication and greater access to modern methods of contraception. Extended spousal

separations due to migrants seeking work in foreign countries, especially the Gulf countries and other Southeast Asian countries, may be another reason for the fertility decline (see Table 3.2). A decline in the ideal number of children, increasing age at marriage, and increasing use of safe abortion services are other factors that could potentially affect fertility. These are discussed in greater detail in later chapters of this report.



# 5.4 CHILDREN EVER BORN AND LIVING

Data on the number of children ever born reflect the accumulation of births over the past 30 years and therefore have limited relevance to current fertility levels, particularly when the country has experienced a decline in fertility. Moreover, the data are subject to recall error, which is typically greater for older than younger women. Nevertheless, information on children ever born (or parity) is useful in looking at a number of issues. Parity data show how average family size varies across age groups. The percentage of currently married women in their 40s who have never had children also provides an indicator of the level of primary infertility or the inability to bear children. Comparisons of differences in the mean number of children ever born and surviving reflect the cumulative effects of mortality levels during the period in which women have been bearing children.

Table 5.4 shows the percent distribution of all women and currently married women by number of children ever born, mean number of children ever born, and mean number of children living. Eighty-eight percent of women age 15-19 have never given birth. This proportion declines to 12 percent among women age 25-29 and to 5 percent or less among women age 30 or above, indicating that childbearing among Nepalese women is nearly universal. On average, Nepalese women nearing the end of their reproductive years have attained a parity of 4.6 children. This is two children more than the total fertility rate. The same pattern is replicated for currently married women, except that the mean number of children ever born is higher among currently married women in mean number of children ever born is due to the substantial proportion of young and unmarried women in the former category who exhibit lower fertility.

### Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Nepal 2011

					Number	of children	ever borr	ı					Number of	Mean number of children	Mean number of living
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	women	ever born	children
							ALL	WOMEN							
15-19	87.9	10.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,753	0.14	0.13
20-24	39.1	31.3	21.0	7.2	1.3	0.1	0.0	0.0	0.0	0.0	0.0	100.0	2,297	1.01	0.94
25-29	11.8	20.9	33.9	20.8	8.8	3.0	0.6	0.2	0.0	0.0	0.0	100.0	2,101	2.06	1.93
30-34	5.0	7.9	34.2	26.4	14.7	7.5	3.3	0.8	0.2	0.0	0.0	100.0	1,734	2.79	2.58
35-39	2.5	4.2	23.7	26.2	19.3	11.6	5.6	3.7	2.1	0.7	0.3	100.0	1,557	3.52	3.19
40-44	3.1	2.9	14.3	23.8	21.9	13.8	9.2	5.7	2.5	1.6	1.2	100.0	1,285	4.02	3.52
45-49	4.2	2.0	12.2	16.5	19.4	13.3	10.0	11.8	5.0	3.8	1.8	100.0	947	4.57	3.91
Total	29.8	13.4	19.7	15.2	9.7	5.4	2.9	2.1	0.9	0.5	0.3	100.0	12,674	2.12	1.91
						CUF	RENTLY	MARRIED	WOMEN	I					
15-19	57.9	36.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	792	0.48	0.45
20-24	21.0	40.5	27.3	9.3	1.7	0.2	0.0	0.0	0.0	0.0	0.0	100.0	1,761	1.31	1.22
25-29	5.0	22.3	36.4	22.6	9.5	3.3	0.6	0.2	0.0	0.0	0.0	100.0	1,914	2.23	2.08
30-34	2.9	7.5	35.1	27.0	15.2	7.7	3.4	0.9	0.2	0.0	0.0	100.0	1,659	2.87	2.66
35-39	0.8	3.9	23.8	27.3	20.1	11.5	5.7	3.9	2.3	0.6	0.3	100.0	1,461	3.58	3.25
40-44	1.7	2.4	14.3	24.2	22.1	14.4	9.4	6.1	2.4	1.7	1.3	100.0	1,190	4.11	3.61
45-49	2.5	1.7	11.9	16.7	19.7	13.4	10.6	11.9	5.2	4.3	2.0	100.0	832	4.71	4.02
Total	10.7	17.2	25.2	19.5	12.3	6.7	3.7	2.6	1.1	0.7	0.4	100.0	9,608	2.68	2.42

As expected, the mean number of children ever born and the mean number of children surviving rise with increasing age of women. A comparison of the mean number of children ever born with the mean number of living children reveals the experience of child loss among Nepalese women. By the end of their reproductive years (age 45-49), women in Nepal have given birth to an average of 4.6 children, with 3.9 surviving.

Voluntary childlessness is uncommon in Nepal. Currently married women with no children are likely to be those who are sterile or unable to bear children. The level of childlessness among married women at the end of their reproductive period can be used as an indicator of the level of primary sterility. In Nepal, primary sterility among older currently married women is 3 percent.

### 5.5 BIRTH INTERVALS

Birth interval is the length of time between two successive live births. Information on birth intervals provides insight into birth spacing patterns, which affect fertility as well as maternal, infant, and childhood mortality. Studies have shown that short birth intervals are associated with increased risk of death for mother and baby, particularly when the birth interval is less than 24 months.

Table 5.5 shows the percent distribution of non-first births in the five years preceding the survey by number of months since the preceding birth, according to background characteristics. The median birth interval in Nepal is 36.2 months, an increase from 31.8 months in 2001. Median number of months since a preceding birth increases significantly with age, from 33.3 months among mothers age 20-29 to 46.8 months among mothers age 40-49. There is no marked difference in the length of the median birth interval by birth order or sex of the preceding birth.

Studies have shown that the death of a preceding child leads to a shorter birth interval than when the preceding child survived. The median birth interval is almost 11 months shorter among births in which the

previous sibling is dead than among births in which the previous sibling is alive (26.2 months and 36.9 months, respectively). This difference in birth intervals may be due to the desire of parents to replace a dead child as well as the loss of the fertility-delaying effects of breastfeeding.

According to the 2011 NDHS data, birth intervals are slightly longer in urban (40.3 months) than in rural (35.9 months) areas. There are no marked differences in median birth intervals by ecological zones. The median birth interval is longest in the Western region (43.3 months) and shortest in the Far-western region (33.2 months). Birth intervals are longer in the Western terai and Western hill subregions than in the other subregions. Birth interval increases with education from 35.1 months among women with no education to 42.2 months among women with an SLC or above. Similarly, birth interval increases with wealth. The birth interval for the highest wealth quintile is nearly 4 years (46.2 months), whereas for all other quintiles it is 37.2 months or less.

#### Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Nepal 2011

Background		Мо	nths since	preceding I	oirth			Number of	Median number of months since
characteristic	7-17	18-23	24-35	36-47	48-59	60+	Total	non-first births	preceding birth
Age 15-19 20-29 30-39 40-49	(30.7) 8.2 5.4 4.2	(36.0) 16.6 8.8 4.9	(25.1) 31.0 25.4 22.9	(6.0) 23.0 17.2 21.0	(2.3) 10.3 12.0 12.1	(0.0) 10.9 31.2 35.0	100.0 100.0 100.0 100.0	45 2,134 1,148 224	(22.1) 33.3 43.0 46.8
Sex of preceding birth Male Female	7.0 7.6	13.3 13.8	27.8 29.3	19.9 21.6	12.6 9.3	19.4 18.4	100.0 100.0	1,676 1,875	36.8 35.6
Survival of preceding birth Living Dead	5.7 25.2	13.3 16.6	29.0 23.2	21.3 15.2	11.1 8.3	19.5 11.5	100.0 100.0	3,263 288	36.9 26.2
Birth order 2-3 4-6 7+	7.2 7.4 7.5	13.7 13.9 11.5	27.4 29.7 35.1	20.9 21.2 18.3	11.3 8.8 14.2	19.4 18.9 13.5	100.0 100.0 100.0	2,361 947 243	36.8 35.5 33.7
<b>Residence</b> Urban Rural	6.5 7.4	11.4 13.8	23.5 29.0	17.6 21.1	13.1 10.6	27.9 18.1	100.0 100.0	290 3,262	40.3 35.9
<b>Ecological zone</b> Mountain Hill Terai	8.3 6.7 7.7	13.9 12.3 14.5	33.1 30.7 26.1	20.9 19.0 22.2	9.3 11.0 11.0	14.4 20.4 18.5	100.0 100.0 100.0	311 1,424 1,816	34.2 36.2 36.8
Development region Eastern Central Western Mid-western Far-western	8.5 9.0 5.4 4.7 6.8	14.3 14.4 10.3 12.2 16.9	24.1 29.4 23.7 34.0 34.3	22.5 20.5 19.5 20.4 21.0	12.1 8.1 13.5 12.6 9.5	18.5 18.6 27.6 16.0 11.6	100.0 100.0 100.0 100.0 100.0	790 1,133 625 570 433	37.0 34.5 43.3 35.6 33.2
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	10.6 8.5 7.3 8.9 7.1 5.4 5.0 7.4 8.0 9.8 5.5 3.8 5.0	8.4 11.0 17.3 11.9 11.5 10.0 14.2 16.3 16.7 15.8 10.7 9.8 14.2	27.0 29.2 37.1 25.9 29.8 26.5 36.5 39.3 22.5 29.3 19.4 27.0 30.1	20.4 20.3 21.3 24.2 19.9 17.4 16.8 16.7 21.8 20.8 22.7 24.5 25.9	11.1 9.8 8.5 12.4 7.6 12.2 12.5 9.4 12.1 8.2 15.6 14.0 10.9	22.6 21.2 8.5 16.8 24.1 28.5 15.0 10.9 18.9 16.1 26.2 21.0 13.9	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	69 68 174 279 304 381 276 184 443 762 243 198 171	38.6 36.5 32.1 37.6 36.5 43.1 33.3 32.1 36.7 33.5 44.1 39.4 36.3
Education No education Primary Some secondary SLC and above	7.2 7.6 9.2 4.3	15.2 12.1 10.6 10.8	29.4 30.6 24.4 24.5	21.1 19.9 18.6 24.9	9.6 10.4 15.5 12.6	17.5 19.3 21.8 23.0	100.0 100.0 100.0 100.0	2,074 698 501 279	35.1 35.8 39.0 42.2
Wealth quintile Lowest Second Middle Fourth Highest Total	7.1 6.5 9.4 7.4 5.7 7.3	14.9 15.2 12.8 12.3 9.8 13.6	35.2 27.8 25.5 26.3 20.1 28.6	19.8 21.6 20.6 23.2 19.3 20.8	8.8 10.9 11.2 10.5 16.2 10.9	14.2 18.0 20.6 20.3 28.8 18.9	100.0 100.0 100.0 100.0 100.0 100.0	1,099 830 703 523 396 3,551	33.2 36.3 37.2 37.2 46.2 36.2

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Figures in parentheses are based on 25-49 unweighted cases. SLC = School Leaving Certificate

### 5.6 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhea is the interval between the birth of a child and the resumption of menstruation, a period during which the risk of pregnancy is much reduced. Postpartum protection from conception depends upon the intensity and duration of breastfeeding. Postpartum abstinence refers to the period of voluntary sexual inactivity after childbirth. A woman is considered insusceptible if she is not exposed to the risk of pregnancy, either because she is amenorrheic or because she is abstaining from sexual intercourse following a birth. In the 2011 NDHS, information was obtained about the duration of amenorrhea and the duration of sexual abstinence following childbirth for births in the three years preceding the survey.

Table 5.6 shows that Nepalese women are amenorrheic for a median of 6.6 months, abstain for a median of 3.0 months, and are insusceptible to pregnancy for a median of 8.2 months. In general, the proportion of women who are amenorrheic or abstaining decreases with increasing months after delivery. The proportion of women who are amenorrheic drops from 98 percent in the first two months after birth to 22 percent at 12-13 months and less than 1 percent at 22 months or later. The majority of Nepalese women (86 percent) are still abstaining in the first two months following birth. A comparison of data from earlier surveys indicates that the median duration of postpartum amenorrhea, a proximate determinant of fertility, declined from 10.3 months in 1996 to 9.3 months in 2006 and then to 6.6 months in 2011.

Table 5.6 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Nepal 2011

Months since	Percentage of	births for which	n the mother is:	Number of
birth	Amenorrheic	Abstaining	Insusceptible <sup>1</sup>	births
< 2	98.1	86.4	99.7	136
2-3	84.8	47.7	90.2	209
4-5	61.0	39.1	71.5	202
6-7	50.0	22.7	58.2	183
8-9	40.2	15.8	46.6	188
10-11	28.9	14.2	38.0	139
12-13	21.8	12.9	31.7	181
14-15	10.9	10.1	20.8	164
16-17	10.0	12.9	20.3	204
18-19	6.1	3.7	9.0	174
20-21	2.3	9.9	11.6	172
22-23	0.6	11.4	12.1	138
24-25	0.7	6.3	6.9	163
26-27	0.0	3.9	3.9	185
28-29	0.9	2.9	3.8	202
30-31	0.4	4.5	4.9	189
32-33	0.0	3.7	3.7	189
34-35	0.7	1.7	2.4	145
Total	23.4	16.9	29.9	3,163
Median	6.6	3.0	8.2	na
Mean	8.6	6.5	11.0	na

Note: Estimates are based on status at the time of the survey.

na = Not applicable

<sup>1</sup> Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

Table 5.7 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility by background characteristics. The duration of postpartum insusceptibility is substantially longer among women age 30-49 than among women age 15-29 and among rural than urban women. Also, postpartum insusceptibility is longer among women residing in the mountain zone than women in the other zones. Women in the Midwestern region have the longest median postpartum insusceptibility. Women with no education have longer duration of postpartum insusceptibility than women with SLC and higher level of education (10.7 months versus 5.7 months). Women in the lowest wealth quintile are insusceptible almost three times longer than women in the highest wealth quintile (12.1 months versus 4.7 months).

Table 5.7 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Nepal 2011

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility <sup>1</sup>
Mother's age			
15-29	6.3	2.8	7.8
30-49	9.5	3.9	10.4
Residence			
Urban	6.0	4.1	7.1
Rural	6.7	2.9	8.3
Ecological zone			
Mountain	8.6	2.3	10.1
Hill	7.1	3.2	9.4
Terai	6.2	3.0	7.4
Development region			
Eastern	5.8	3.7	7.7
Central	5.7	2.5	6.8
Western	6.8	3.5	9.2
Mid-western	9.9	2.6	10.6
Far-western	8.7	2.6	10.0
Education			
No education	9.8	2.9	10.7
Primary	7.8	3.1	8.6
Some secondary	5.5	3.2	6.6
SLC and above	4.7	2.9	5.7
Wealth quintile			
Lowest	10.8	3.4	12.1
Second	8.1	2.8	8.4
Middle	5.7	2.1	8.0
Fourth	6.0	4.8	7.0
Highest	4.0	2.9	4.7
Total	6.6	3.0	8.2

Note: Medians are based on the status at the time of the survey (current status).

SLC = School Leaving Certificate <sup>1</sup> Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

#### 5.7 **MENOPAUSE**

The risk of becoming pregnant declines with age. The term infecundity refers to a process rather than a well-defined event, and although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. Table 5.8 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 or above.

In the 2011 NDHS, women were considered menopausal if they were neither pregnant nor postpartum amenorrheic and had not had a menstrual period for at least six months preceding the survey. The proportion of women who were menopausal increased with age, from 5 percent among women age 30-34 to 50 percent among women age 48-49. Overall, 13 percent of women age 30-49 were menopausal, a decline from 16 percent in 2006. The proportion of currently married women age 48-49

### Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, Nepal 2011

Age	Percentage menopausal <sup>1</sup>	Number of women		
30-34	4.7	1,734		
35-39	7.4	1,557		
40-41	10.2	541		
42-43	16.1	521		
44-45	19.5	469		
46-47	30.8	372		
48-49	50.0	329		
Total	12.8	5,523		

<sup>1</sup> Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey

who were menopausal increased between 2001 and 2006 (from 56 percent to 64 percent) before declining to 50 percent in 2011.

#### 5.8 AGE AT FIRST BIRTH

The onset of childbearing at an early age has a major effect on the health of both mother and child. It also lengthens the reproductive period, thereby increasing the level of fertility. Table 5.9 shows the median age at first birth and the percentage of women who gave birth by exact ages, according to current age. The median age at first birth is 20.1 years for the youngest cohort of women (age 25-29) for whom a median age can be

computed. Almost one-quarter of Nepalese women (23 percent) have given birth before reaching age 18, while about half (48 percent) have given birth by age 20. The median age at first birth is about 20 years across all age cohorts, indicating virtually no change in age at first birth over time.

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Nepal 2011								
	Percentage who gave birth by exact age					Percentage who have never given	Number of	Median age
Current age	15	18	20	22	25	birth	women	at first birth
15-19	0.3	na	na	na	na	87.9	2,753	а
20-24	1.4	19.4	39.1	na	na	39.1	2,297	а
25-29	2.1	25.1	49.5	66.3	83.2	11.8	2,101	20.1
30-34	2.1	23.1	47.6	69.6	85.8	5.0	1,734	20.2
35-39	2.5	23.4	49.5	69.2	87.3	2.5	1,557	20.0
40-44	2.4	20.7	46.3	68.5	86.3	3.1	1,285	20.3
45-49	1.8	18.8	41.8	65.7	84.6	4.2	947	20.7
20-49	2.0	22.0	45.6	na	na	13.6	9,921	а
25-49	2.2	22.8	47.6	68.0	85.3	5.9	7,624	20.2

na = Not applicable due to censoring

Table 5.9 Age at first birth

a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 5.10 shows that the median age at first birth is slightly higher in urban areas than in rural areas. Likewise, median age at first birth is slightly higher in the hill zone than in the other ecological zones. Median age at first birth is highest in the Eastern region (21.1 years) and lowest in the Far-western region (19.5 years). Women living in the Far-western terai subregion have the lowest median age at first birth (19.3 years). Median age at first birth increases with education, with the impact of education more obvious among women with an SLC or higher education. Women with a primary education or no education give birth to their first child four years earlier than women who have an SLC or higher education.

### 5.9 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy and motherhood is a major social and health issue in Nepal. Early teenage pregnancy can cause severe health problems for both the mother and child. Moreover, an early start to childbearing greatly reduces women's educational and employment opportunities and is associated with higher levels of fertility.

Table 5.11 shows that 17 percent of women age 15-19 have already had a birth or are pregnant with their first child. The percentage of women who have begun childbearing increases rapidly with age, from 1 percent among women age 15 to 39 percent among women age 19. Teenage pregnancy is twice as high in rural areas as in urban areas. Teenage childbearing is lowest in the hill zone (16 percent) and highest in the terai (18 percent); however, teenage pregnancy in the terai zone has declined markedly, from 26 percent in 2001. Not surprisingly, early childbearing is inversely related to educational level. For example, teenagers with no education are about four times more likely to have begun childbearing than those with SLC and higher education (32 percent and 8 percent, respectively). The percentage of teenagers who have begun childbearing is highest (22 percent) in the middle wealth quintile and lowest in the wealthiest households (7 percent). At the national level, the proportion of teenage pregnancies has declined by about 10 percent in the last five years.

### Table 5.10 Median age at first birth

Median age at first birth among women age 25-49 years, according to background characteristics, Nepal 2011

Background characteristic	Women age 25-49				
<b>Residence</b> Urban Rural	20.7 20.1				
Ecological zone Mountain Hill Terai	20.4 20.6 19.9				
Development region Eastern Central Western Mid-western Far-western	21.1 20.0 20.1 19.7 19.5				
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	21.3 20.2 19.9 21.5 21.0 20.3 19.8 19.8 20.8 19.5 19.9 19.6 19.3				
Education No education Primary Some secondary SLC and above	19.7 19.7 20.5 23.7				
Wealth quintile Lowest Second Middle Fourth Highest Total	20.0 20.0 19.8 20.0 21.2 20.2				
SLC = School Leaving Certificate					

### Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Nepal 2011

		e of women -19 who:	Percentage who have		
Background characteristic	Have had a live birth	Are pregnant with first child	begun childbearing	Number of women	
Age	0.1	0.0	0.0	550	
15 16	0.1 2.1	0.8 2.8	0.9 4.9	550 531	
17	6.3	4.2	10.5	574	
18	19.9	8.5	28.4	558	
19	32.3	6.5	38.8	540	
Residence					
Urban	6.1	3.2	9.3	367	
Rural	13.0	4.8	17.8	2,386	
Ecological zone Mountain	12.6	4.6	17.1	182	
Hill	12.6	4.6 5.0	15.5	1,086	
Terai	13.2	4.3	17.5	1,485	
Development region					
Eastern	11.3	4.6	15.9	672	
Central	12.3	4.7	16.9	896	
Western	12.3	3.9	16.2	573	
Mid-western Far-western	13.7 11.3	6.5 3.3	20.2 14.5	333 279	
	11.5	5.5	14.5	215	
Subregion Eastern mountain	11.5	2.5	14.0	54	
Central mountain	9.4	1.3	10.7	63	
Western mountain	16.5	9.4	26.0	65	
Eastern hill	9.5	5.5	15.0	224	
Central hill	8.5	4.6	13.0	305	
Western hill	12.6	5.2	17.8	324	
Mid-western hill	10.5 12.0	5.9 3.2	16.3 15.2	140 93	
Far-western hill Eastern terai	12.0	3.2 4.4	16.6	93 394	
Central terai	12.3	4.4 5.1	19.9	528	
Western terai	11.9	2.2	14.1	248	
Mid-western terai	15.7	5.6	21.3	159	
Far-western terai	10.1	3.0	13.1	156	
Education					
No education	24.1	7.5	31.6	327	
Primary Somo socondary	20.4 9.5	7.4 3.8	27.8 13.2	456 1,368	
Some secondary SLC and above	9.5 5.3	3.8 2.7	8.0	602	
Wealth quintile					
Lowest	12.6	5.8	18.4	492	
Second	15.7	5.0	20.6	574	
Middle	15.6	6.5	22.1	597	
Fourth	10.5	3.9	14.4	588	
Highest	5.3	1.3	6.7	502	
Total	12.1	4.6	16.7	2,753	

SLC = School Leaving Certificate

### **Key Findings:**

- About three-quarters of currently married women age 15-49 and two-thirds of men want no more children or are sterilized.
- The desire to stop childbearing among married women has increased in the past 15 years, from 59 percent in 1996 to 73 percent in 2011.
- Women and men report an ideal family size of about two children. The mean ideal number of children among currently married women has declined by nearly one child in the last 15 years, from 2.9 children in 1996 to 2.2 children in 2011.
- Overall, Nepalese women have about one child more than their ideal number. This implies that the total fertility rate of 2.6 children per woman is 44 percent higher than it would be if unwanted births were avoided.

Information on fertility preferences is used to assess future fertility patterns and potential demand for contraception. Such data are also useful in constructing measures of unwanted or mistimed births.

### 6.1 DESIRE FOR MORE CHILDREN

Information about the desire for more children is important for understanding future reproductive behavior. The provision of adequate and accessible family planning services is dependent on the availability of such information. In the 2011 NDHS, currently married women (whether pregnant or not) and men were asked about their intentions to have another child and, if they had such intentions, how soon they wanted the child. The same question was phrased differently in the case of pregnant women or men whose wife or wives (or girlfriends) were pregnant at the time of the interview to ensure the wantedness of subsequent children after completion of the current pregnancy. Sterilized women and men were considered to want no more children, and therefore they were not asked questions about their desire for more children.

Table 6.1 shows that 8 percent of women and 10 percent of men want to have another child soon (within two years), while 14 percent of women and 17 percent of men want another child two or more years later. Half of women and three-fifths of men do not want any more children, and 23 percent of women and 9 percent of men have already been sterilized (includes both female and male sterilization).

The desire to limit childbearing (including by undergoing sterilization) increases with the number of living children, from 5 percent among women with no children to 94 percent among women with six or more children. Two percent of women with no children have been sterilized. A comparison of data from the 2006 and 2011 NDHS shows a slight increase in the proportion of currently married women who want no more children or have been sterilized, from 71 percent in 2006 to 73 percent in 2011. This is a 24 percent increase from 59 percent in 1996.

The desire to limit childbearing among married men increases from 2 percent among those with no children to 93 percent among those with six or more children. The proportion of currently married men (15-49) who want no more children or have been sterilized has decreased slightly from 70 percent in 2006 to 69 percent in 2011.

Women are more likely to want to limit childbearing at lower parities than men. For example, 33 percent of women with one child desire to stop childbearing or have been sterilized, compared with 25 percent of men with one child. Similarly, 88 percent of women with two children desire to stop childbearing or have been sterilized, compared with 83 percent of men with two children.

#### Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Nepal 2011

			Numbe	er of living	children			Total
Desire for children	0	1	2	3	4	5	6+	15-49
		W	OMEN <sup>1</sup>					
Have another soon <sup>2</sup> Have another later <sup>3</sup> Have another, undecided when Undecided Want no more Sterilized <sup>4</sup> Declared infecund Missing	48.7 39.0 1.9 3.0 2.7 1.8 3.0 0.0	14.3 44.8 2.2 5.2 31.0 1.5 1.0 0.0	3.4 5.1 0.8 1.7 65.7 22.3 1.1 0.0	2.2 2.0 0.5 0.8 50.8 41.7 2.0 0.0	0.7 0.6 0.0 56.3 39.4 2.4 0.0	0.2 0.7 0.5 0.3 64.1 31.2 3.1 0.0	0.7 0.0 0.5 0.0 73.0 20.7 5.1 0.0	8.4 14.0 2.0 49.7 23.0 1.9 0.0
Total Number	100.0 802	100.0 1,878	100.0 2,759 MEN <sup>5</sup>	100.0 1,996	100.0 1,155	100.0 531	100.0 487	100.0 9,608
Have another soon <sup>2</sup> Have another later <sup>3</sup> Have another, undecided when Undecided Want no more Sterilized <sup>4</sup> Declared infecund Missing	57.0 32.5 0.2 5.4 1.7 0.0 2.8 0.3	17.1 49.8 0.9 6.8 24.3 0.2 1.0 0.0	4.4 11.1 0.0 1.7 72.8 9.7 0.2 0.0	1.5 4.2 0.0 0.9 76.8 16.6 0.0 0.0	2.2 2.4 0.0 1.2 79.4 13.7 1.1 0.0	0.9 1.2 0.0 0.4 86.1 10.6 0.8 0.0	0.7 2.3 0.0 0.0 83.2 9.6 4.2 0.0	10.1 17.1 0.2 2.6 60.2 8.9 0.9 0.0
Total Number	100.0 219	100.0 522	100.0 737	100.0 537	100.0 310	100.0 133	100.0 168	100.0 2,626

The number of living children includes the current pregnancy.

 <sup>2</sup> Wants next birth within 2 years
 <sup>3</sup> Wants to delay next birth for 2 or more years Includes both female and male sterilization

<sup>5</sup> The number of living children includes one additional child if respondent's wife is pregnant (or if any

wife is pregnant for men with more than one current wife).

Fertility preference relates closely to number of living children. Almost half of women (49 percent) with no living children want to have a child soon, as compared with 1 percent of women with six or more children. Among men without children, 57 percent want to have a child soon, compared with less than 1 percent of men with six or more children. The more children a woman has, the less likely she is to want another child.

#### 6.2 **DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS**

Tables 6.2.1 and 6.2.2 provide information on differences in potential demand for fertility control by background characteristics. At parities less than four, urban women are more likely to want to limit childbearing than rural women. However, at higher parities (four or more children), rural women are more likely to want to limit childbearing than urban women. Women in the mountain and hill zones (75 and 76 percent, respectively) are more likely to want to limit childbearing than women in the terai (70 percent). Women in the Western development region are more likely to want to limit childbearing than those in the other development regions (76 percent compared with 74 percent or lower). However, women in the Far-western development region with fewer than four living children have less desire to limit childbearing than women of the same parity in other development regions.

Men in the mountain zone are more likely to want to limit childbearing than men in the hill and terai zones. Differences among men in the desire to limit childbearing by development region are relatively small.

Overall, women and men with no education have a greater desire to limit childbearing than those with higher levels of education. However, among women and men with less than four children, those who have higher levels of education are more likely to want to limit childbearing than those with lower levels of education. A similar pattern is seen among women and men according to wealth quintile.

### Table 6.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Nepal 2011

Background			Number	r of living o	children <sup>1</sup>			
characteristic	0	1	2	3	4	5	6+	Total
Residence								
Urban	5.6	37.4	91.8	95.3	94.8	89.6	77.3	72.7
Rural	4.3	31.6	87.2	92.2	95.8	95.8	94.4	72.7
Ecological zone								
Mountain	5.7	29.1	88.4	93.6	96.1	94.8	94.6	74.9
Hill	4.2	36.0	92.4	96.5	96.4	97.2	96.8	75.8
Terai	4.6	30.1	84.8	89.8	95.1	93.7	90.5	70.2
Development region								
Eastern	4.5	30.2	86.4	93.4	97.5	98.5	98.1	69.7
Central	4.5	34.8	85.6	89.9	95.5	95.0	87.8	72.6
Western	7.2	38.0	93.9	96.9	94.9	94.1	96.4	76.1
Mid-western	1.8	27.6	88.7	92.0	94.3	92.0	95.0	72.2
Far-western	1.2	23.5	86.3	90.3	95.8	97.5	98.1	73.9
Education								
No education	5.9	27.2	82.3	90.4	95.3	95.0	93.3	81.2
Primary	3.0	31.4	89.8	93.0	96.7	98.3	(97.4)	72.7
Some secondary	5.2	32.8	91.1	98.9	96.8	*	*	63.3
SLC and above	3.7	37.0	93.8	99.8	(99.4)	*	*	56.9
Wealth quintile								
Lowest	1.2	22.7	84.6	91.2	93.6	96.6	96.6	75.8
Second	1.3	29.1	82.9	91.5	97.2	95.0	94.8	72.4
Middle	3.6	23.5	82.2	91.4	93.6	97.7	88.4	69.1
Fourth	5.6	38.5	90.9	93.6	98.1	91.7	(89.2)	73.0
Highest	8.7	40.6	94.0	95.5	97.1	(95.3)	*	73.8
Total	4.5	32.4	88.0	92.5	95.7	95.3	93.7	72.7

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate <sup>1</sup> The number of living children includes the current pregnancy

### Table 6.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Nepal 2011

		Numbe	r of living o	children <sup>1</sup>			
0	1	2	3	4	5	6+	Total
3.7	27.6	88.0	96.8	97.7	*	*	66.6
1.3	23.6	81.1	92.9	92.5	96.8	93.2	69.6
(0.0)	12.8	83.5	96.9	96.0	(100.0)	(100.0)	73.2
1.1	24.3	88.7	94.9	93.8	93.6	92.0	70.2
2.4	25.8	77.5	91.9	92.3	(99.1)	92.1	67.7
(5.9)	28.7	83.5	94.6	89.7	(94.2)	(89.5)	67.7
0.0	26.2	79.1	94.8	91.4	*	(94.1)	67.8
(2.7)	19.0	90.7	93.8	(97.9)	*	*	71.4
(0.0)	16.5	76.7	91.6	96.5	(94.0)	(100.0)	71.1
(0.0)	24.9	85.4	88.3	(92.3)	(94.0)	*	70.3
*	(5.8)	67.8	94.4	92.0	97.8	96.3	77.4
(1.1)		75.7	93.3	93.6	94.4	91.6	72.8
0.0	26.0	83.1	90.3	91.3	(97.5)	*	66.3
3.3	25.2	93.9	97.1	(98.7)	*	*	62.8
(0.0)	5.6	75.6	91.0	87.9	93.2	94.2	71.9
(1.1)	10.9	76.1	90.4	97.2	(97.2)	(97.0)	68.3
(0.0)	21.7	74.8	92.3	90.2	*	(100.0)	66.8
(2.0)	37.0	79.9	95.9	92.8		*	66.7
4.3	29.0	93.7	96.8	100.0	*	*	71.8
1.7	24.5	82.5	93.4	93.1	96.7	92.8	69.1
	3.7 1.3 (0.0) 1.1 2.4 (5.9) 0.0 (2.7) (0.0) (0.0) (0.0) * (1.1) (0.0) (1.1) (0.0) (2.0) 4.3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3.7 $27.6$ $88.0$ $96.8$ $97.7$ $1.3$ $23.6$ $81.1$ $92.9$ $92.5$ $(0.0)$ $12.8$ $83.5$ $96.9$ $96.0$ $1.1$ $24.3$ $88.7$ $94.9$ $93.8$ $2.4$ $25.8$ $77.5$ $91.9$ $92.3$ $(5.9)$ $28.7$ $83.5$ $94.6$ $89.7$ $0.0$ $26.2$ $79.1$ $94.8$ $91.4$ $(2.7)$ $19.0$ $90.7$ $93.8$ $(97.9)$ $(0.0)$ $16.5$ $76.7$ $91.6$ $96.5$ $(0.0)$ $24.9$ $85.4$ $88.3$ $(92.3)$ * $(5.8)$ $67.8$ $94.4$ $92.0$ $(1.1)$ $27.6$ $75.7$ $93.3$ $93.6$ $0.0$ $26.0$ $83.1$ $90.3$ $91.3$ $3.3$ $25.2$ $93.9$ $97.1$ $(98.7)$ $(0.0)$ $5.6$ $75.6$ $91$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate <sup>1</sup> The number of living children includes one additional child if the respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

#### 6.3 **IDEAL FAMILY SIZE**

The discussion of fertility preferences earlier in this chapter focused on respondents' current childbearing preferences. These preferences are influenced by the number of children a respondent already has. The 2011 NDHS asked women and men age 15-49 about the total number of children they would like to have in their lifetime if they could choose the exact number to have at the time they had no children. Even though this question is based on a hypothetical situation, it provides two measures. First, for women and men who have not yet started a family, the data provide an idea of future fertility. Second, for older and high-parity women, the excess of past fertility over the ideal family size provides a measure of unwanted fertility. Table 6.3 shows that almost all women and men were able to provide a numeric response to the question asked to assess ideal family size.

Table 6.3 Ideal number of children by	number of living children
---------------------------------------	---------------------------

Percent distribution of women and men 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, Nepal 2011

			Num	ber of living	children			
Ideal number of children	0	1	2	3	4	5	6+	Total
			WOMEN	ļ				
0	2.9	0.4	0.3	0.3	0.0	0.1	0.2	1.0
1	21.6	26.2	10.0	3.8	0.7	2.3	0.7	13.1
2	66.8	64.0	77.3	57.2	52.1	38.7	28.3	63.0
3	7.4	7.8	10.2	33.7	33.1	43.1	41.5	17.8
4	0.8	1.2	1.4	4.0	13.0	13.2	22.5	4.1
5	0.1	0.1	0.3	0.5	0.7	2.0	0.9	0.4
6+	0.0	0.0	0.1	0.1	0.2	0.1	4.7	0.3
Non-numeric responses	0.4	0.3	0.2	0.3	0.2	0.4	1.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,550	1,934	2,851	2,068	1,199	557	515	12,674
Mean ideal number children for: <sup>2</sup>								
All women	1.8	1.8	2.0	2.4	2.6	2.7	3.1	2.1
Number of women	3,537	1,928	2,845	2,061	1,196	555	508	12,630
Currently married women	1.9	1.8	2.0	2.4	2.6	2.7	3.1	2.2
Number of currently married	1.5	1.0	2.0	2.4	2.0	2.1	0.1	2.2
women	802	1,872	2,754	1,988	1,153	529	481	9,579
			MEN <sup>3</sup>					
0	1.0	0.0	0.1	0.0	0.3	0.0	0.0	0.5
1	9.4	14.3	7.5	3.4	1.5	1.4	0.0	7.6
2	73.1	67.7	72.8	53.8	48.3	40.5	33.5	65.2
3	13.3	14.9	17.2	36.1	33.7	38.3	44.2	20.9
4	2.4	2.2	2.2	5.6	15.9	16.7	20.9	5.0
5	0.5	0.3	0.2	1.1	0.2	3.1	0.8	0.6
6+	0.2	0.7	0.0	0.0	0.0	0.0	0.7	0.2
Non-numeric responses	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,664	534	756	548	315	135	169	4,121
Mean ideal number children for: <sup>2</sup>								
All men	2.1	2.1	2.1	2.5	2.6	2.8	3.0	2.3
Number of men	1,662	534	756	548	315	135	169	4,119
Currently married men	2.2	2.1	2.1	2.5	2.6	2.8	3.0	2.3
Number of currently married men	219	522	737	537	310	133	168	2,626

The number of living children includes current pregnancy for women.

 <sup>2</sup> Means are calculated excluding respondents who gave non-numeric responses.
 <sup>3</sup> The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife)

Both women and men in Nepal prefer a small family size, with only marginal differences between them (2.1 children for women and 2.3 children for men). Nearly two-thirds of women and men want to have two children, while 13 percent of women and 8 percent of men want to have only one child. Eighteen percent of women and 21 percent of men prefer a three-child family. The proportion of women and men who want four or more children is small (5 percent of women and 6 percent of men want to have four children).

There has been a decline in the mean ideal number of children among currently married women over the last five years, from 2.4 children in 2006 to 2.2 in 2011. This finding could also explain the declining total fertility rate in Nepal.

Table 6.3 shows that the mean ideal number of children increases with the number of living children among both women and men, from two children among respondents with no children to three children among respondents with six or more children. This positive association between actual and ideal number of children is due to two factors. First, to the extent that women are able to implement their fertility desires, women who want smaller families will tend to achieve smaller families. Second, some women may have difficulty admitting their desire for fewer children if they could begin childbearing again and may in fact report their actual number as their preferred number. Despite this tendency to rationalize, the data provide evidence of unwanted fertility, with the vast majority of women with six or more children reporting an ideal family size of fewer than six children.

Table 6.4 shows that the mean ideal number of children increases with age for both women and men, ranging from 1.9 children among women age 15-19 to 2.6 among women age 45-49 and from 2.2 among men age 15-19 to 2.6 among men age 45-49. The ideal number of children for women and men is slightly lower in urban than rural areas. Differences in mean ideal number of children by ecological zone and development region are small.

characteristic         Mean         women <sup>1</sup> Mean         men <sup>2</sup> Age         15-19         1.9         2,749         2.2         975           20-24         1.9         2,291         2.1         685           25-29         2.1         2,090         2.1         581           30-34         2.2         1,731         2.3         499           35-39         2.3         1,555         2.4         542           40-44         2.5         1,275         2.4         438           45-49         2.6         940         2.6         3940           Ecological zone           716           Mural         2.2         6,761         2.2         1,658           Terai         2.2         6,761         2.2         1,648           Western         2.0         2,654         2.3         796           Mid/western         2.2         1,473         2.3         493           Far-western         2.2         1,473         2.3         493           Far-western         2.2         1,473         2.3         493           Far-western         2.2         1,24	Mean ideal number of characteristics, Nepal 20		all women and m	en age 15-49	9 by background
characteristic         Mean         women <sup>1</sup> Mean         men <sup>2</sup> Age         15-19         1.9         2,749         2.2         975           20-24         1.9         2,291         2.1         685           25-29         2.1         2,090         2.1         581           30-34         2.2         1,731         2.3         499           35-39         2.3         1,555         2.4         542           40-44         2.5         1,275         2.4         438           45-49         2.6         940         2.6         399           Residence         Urban         1.9         1,811         2.0         716           Rural         2.2         10,819         2.3         3,402           Ecological zone         Mountain         2.2         6,761         2.3         2,215           Development region         Eastern         2.1         3,054         2.2         996           Central         2.2         1,473         2.3         493         Far-western         2.2         1,448           Western         2.0         2,654         2.3         796         Mid/western         2.		W	omen	Ν	Men
15-19       1.9       2.749       2.2       975         20-24       1.9       2.291       2.1       685         25-29       2.1       2.090       2.1       581         30-34       2.2       1.731       2.3       499         35-39       2.3       1.555       2.4       434         45-49       2.6       940       2.6       399         Residence         Urban       1.9       1.811       2.0       716         Rural       2.2       805       2.4       434         Hill       2.0       5.064       2.2       1.658         Terai       2.2       805       2.4       245         Hill       2.0       5.064       2.2       1.658         Terai       2.2       4.761       2.3       2.215         Development region       Eastern       2.1       3.054       2.2       9.96         Central       2.2       1.473       2.3       493       Far-western       2.2       1.443         Western       2.0       2.654       2.3       796       Mid-western       2.2       1.24       110 <t< th=""><th></th><th>Mean</th><th></th><th>Mean</th><th>Number of men<sup>2</sup></th></t<>		Mean		Mean	Number of men <sup>2</sup>
Urban         1.9         1,811         2.0         716           Rural         2.2         10,819         2.3         3,402           Ecological zone	15-19 20-24 25-29 30-34 35-39 40-44	1.9 2.1 2.2 2.3 2.5	2,291 2,090 1,731 1,555 1,275	2.1 2.1 2.3 2.4 2.4	685 581 499 542 438
Mountain         2.2         805         2.4         245           Hill         2.0         5,064         2.2         1,658           Terai         2.2         6,761         2.3         2,215           Development region         Eastern         2.1         3,054         2.2         996           Central         2.2         4,209         2.2         1,448           Western         2.0         2,654         2.3         796           Mid-western         2.2         1,473         2.3         493           Far-western         2.2         1,240         2.2         385           Subregion         Eastern mountain         2.1         228         2.3         66           Central mountain         2.0         258         2.4         69         Western mountain         2.1         954         2.3         293           Central hill         1.9         1,547         2.0         616         Western hill         2.1         940         2.3         120           Eastern hill         2.3         409         2.3         120         Eastern terai         2.1         1,872         2.2         638         Central terai         2.0	Urban				
Eastern         2.1         3,054         2.2         996           Central         2.2         4,209         2.2         1,448           Western         2.0         2,654         2.3         796           Mid-western         2.2         1,473         2.3         493           Far-western         2.2         1,473         2.3         493           Far-western         2.2         1,240         2.2         385           Subregion         Eastern mountain         2.1         228         2.3         66           Central mountain         2.0         258         2.4         69         998         Central hill         2.1         954         2.3         293         Central hill         1.9         1,547         2.0         616           Western hill         2.0         1,508         2.3         440         Mid-western hill         2.2         638         Central terai         2.0         1,508         2.3         120           Eastern terai         2.1         1,872         2.2         638         Central terai         2.0         1,146         2.3         356           Mid-western terai         2.0         1,146         2.3 <t< td=""><td>Mountain Hill</td><td>2.0</td><td>5,064</td><td>2.2</td><td>1,658</td></t<>	Mountain Hill	2.0	5,064	2.2	1,658
Eastern mountain         2.1         228         2.3         66           Central mountain         2.0         258         2.4         69           Western mountain         2.4         319         2.4         110           Eastern hill         2.1         954         2.3         293           Central hill         1.9         1,547         2.0         616           Western hill         2.0         1,508         2.3         440           Mid-western hill         2.0         1,508         2.3         440           Mid-western hill         2.2         646         2.4         189           Far-western hill         2.3         409         2.3         120           Eastern terai         2.1         1,872         2.2         638           Central terai         2.0         1,146         2.3         356           Mid-western terai         2.0         673         2.1         217           Education         2.5         5,024         2.8         567           Primary         2.1         2,203         2.4         813           Some secondary         1.9         3,079         2.2         1,436	Eastern Central Western Mid-western	2.2 2.0 2.2	4,209 2,654 1,473	2.2 2.3 2.3	1,448 796 493
No education         2.5         5,024         2.8         567           Primary         2.1         2,203         2.4         813           Some secondary         1.9         3,079         2.2         1,436           SLC and above         1.7         2,323         2.0         1,303           Wealth quintile         Lowest         2.4         2,111         2.5         610           Second         2.3         2,388         2.4         695           Middle         2.2         2,592         2.3         830           Fourth         2.0         2,710         2.2         919	Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai	2.0 2.4 2.1 1.9 2.0 2.2 2.3 2.1 2.4 2.0 2.1	258 319 954 1,547 1,508 646 409 1,872 2,404 1,146 666	2.4 2.3 2.0 2.3 2.4 2.3 2.2 2.4 2.3 2.2 2.3 2.2	69 110 293 616 440 189 120 638 763 356 242
Lowest2.42,1112.5610Second2.32,3882.4695Middle2.22,5922.3830Fourth2.02,7102.2919	No education Primary Some secondary	2.1 1.9	2,203 3,079	2.4 2.2	813 1,436
Total         2.1         12,630         2.3         4,119	Lowest Second Middle Fourth Highest	2.3 2.2 2.0 1.9	2,388 2,592 2,710 2,829	2.4 2.3 2.2 2.0	695 830 919 1,064

Mean ideal number of children for all women and men ago 15.40 by backg

Table 6.4 Mean ideal number of children by background characteristics

SLC = School Leaving Certificate

Number of women who gave a numeric response Number of men who gave a numeric response

The mean ideal number of children varies inversely with the respondent's level of education and wealth quintile. Among women, it ranges from 1.7 children for those with an SLC or higher to 2.5 children for those with no education. Among men, it ranges from two children for those with an SLC or higher to 2.8 children for those with no education. Similarly, it ranges from 1.9 children for women and two children for men in the highest wealth quintile to 2.4 children for women and 2.5 children for men in the lowest quintile.

### 6.4 FERTILITY PLANNING

Information collected in the 2011 NDHS can also be used to estimate levels of unwanted fertility. This information provides some insight into the degree to which couples are able to control fertility. Women age 15-49 were asked a series of questions about each child born to them in the preceding five years, as well as any current pregnancy, to determine whether the birth or pregnancy was wanted then (planned), wanted later (mistimed), or not wanted at all (unplanned) at the time of conception. In assessing these results, it is important to recognize that women may declare a previously unwanted birth or current pregnancy as wanted, and this rationalization results in an underestimate of the true extent of unwanted births.

Table 6.5 shows that three in four births in the five years preceding the survey were planned, 12 percent were mistimed, and 13 percent were unwanted. The proportion of wanted births decreases and the proportion of unwanted births increases with increasing birth order. Eighty-four percent of first-order births are wanted, and 43 percent of fourth- and higher-order births are unwanted. The proportion of mistimed births is high (16-17 percent) for first- and second-order births and then declines with birth order.

Table 6.5	Fertility	planning	status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Nepal 2011

	Plan	ning status o	f birth		
Birth order and	Wanted	Wanted	Wanted		Number of
mother's age at birth	then	later	no more	Total	births
Birth order					
1	83.8	16.1	0.2	100.0	2,097
2	79.2	17.4	3.4	100.0	1,629
3	74.3	7.8	17.9	100.0	990
4+	53.1	3.5	43.4	100.0	1,297
Mother's age at birth					
<20	75.2	23.1	1.7	100.0	1,242
20-24	80.7	13.4	5.9	100.0	2,343
25-29	76.2	7.5	16.3	100.0	1,368
30-34	62.9	5.0	32.1	100.0	651
35-39	50.3	2.5	47.2	100.0	289
40-44	44.5	0.0	55.5	100.0	108
45-49	*	*	*	100.0	12
Total	74.4	12.4	13.3	100.0	6,013

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

The proportion of planned births is highest (81 percent) among mothers in the 20-24 age group. The percentage of planned births has increased from 69 percent in the 2006 NDHS to 74 percent in the 2011 NDHS. Mistimed births are more common among younger mothers (under age 30) than among older mothers (above age 30). The percentage of unwanted births increases with mother's age at birth, rising from 2 percent among mothers below age 20 to 56 percent among mothers age 40-44 years.

### 6.5 WANTED FERTILITY RATES

The wanted fertility rate measures the potential demographic impact of avoiding unwanted births. It is calculated in the same manner as the total fertility rate but excluding unwanted births from the numerator. A birth is considered wanted if the number of living children at the time of conception is less than the ideal number of children reported by the respondent. The gap between wanted and actual fertility shows how successful women are in achieving their reproductive intentions. This measure also may be an underestimate to the extent that women may not report an ideal family size lower than their actual family size.

The total wanted fertility rates in Table 6.6 represent the levels of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been avoided. Overall, Nepalese women have 0.8 children more than their ideal number of 1.8 children. This implies that the total fertility rate (TFR) is 44 percent higher than it would be if unwanted births were avoided.

The gap between wanted and observed fertility rates is higher among women who live in rural areas (one child) than among women who live in urban areas (0.4 children). Similarly, the gap is higher among women residing in the mountain zone (1.4 children) than women residing in the hill (one child) and terai (0.7 children) zones.

The difference between wanted and observed total fertility rates varies from 0.7 children per woman in the Eastern development region to one child per woman in the Far-western development region. The gap between wanted and observed total fertility rates decreases with increasing education. Women with no education have 1.2 children more than they want, compared to 0.2 children among women with at least an SLC. There is an inverse relationship between wanted fertility rate and wealth quintile. The gap between wanted and actual fertility rates ranges from 0.3 children among women in the highest wealth quintile to two children among women in the lowest wealth quintile. There has been a steady decline in the desired number of children among Nepalese women, from 2.5 children in 2001 to two in 2006 and 1.8 in 2011. The gap between wanted and actual fertility rates has narrowed over the years, from 1.1 children in 2006 to 0.8 children in 2011.

### Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Nepal 2011

	011	
Background characteristic	Total wanted fertility rate	Total fertility rate
<b>Residence</b> Urban Rural	1.2 1.8	1.6 2.8
<b>Ecological zone</b> Mountain Hill Terai	2.0 1.6 1.8	3.4 2.6 2.5
Development region Eastern Central Western Mid-western Far-western	1.8 1.7 1.7 1.8 1.8	2.5 2.5 2.5 3.2 <sup>a</sup> 2.8
Education No education Primary Some secondary SLC and above	2.5 1.9 1.6 1.5	3.7 2.7 <sup>a</sup> 2.1 <sup>b</sup> 1.7 <sup>b</sup>
Wealth quintile Lowest Second Middle Fourth Highest	2.1 2.0 2.0 1.6 1.2	4.1 3.1 2.7 2.1 1.5
Total	1.8	2.6

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

SLC = School Leaving Certificate

<sup>a</sup> One or more of the components of age-specific fertility rates are based on 125-249 woman-years of exposure.

<sup>b</sup> One or more of the components of age-specific fertility rates are based on fewer than 125 womanyears of exposure.

### **Key Findings:**

- Knowledge of contraception is universal in Nepal.
- One in two currently married women is using a method of contraception, with most women using a modern method (43 percent).
- The three most popular modern methods used by married women are female sterilization (15 percent), injectables (9 percent), and male sterilization (8 percent).
- Use of modern methods has increased by 66 percent in the past 15 years. However, there has been little change in the last five years.
- The government sector remains the major provider of contraceptive methods, catering to more than two in three users (69 percent).
- Overall, 51 percent of contraceptive users discontinued using a method within 12 months of starting its use. Twenty-six percent of episodes of discontinuation occurred because the woman's husband was away.
- Twenty-seven percent of currently married women have an unmet need for family planning services, with 10 percent having an unmet need for spacing and 17 percent having an unmet need for limiting.

Family planning continues to be a priority for the government of Nepal and is highlighted in the current three-year interim development plan (2010-2012) (National Planning Commission, 2010b). It is also considered as an essential component of Nepal Health Sector Program Implementation Plan 2010-2015 (NHSP IP-II). The objectives of the National Family Planning Program include gradually reducing the population growth rate through the promotion of a small family norm to the population in general and the rural population more specifically, working toward satisfying the demand for family planning services, providing high-quality services, and reducing unmet need. Despite the high importance placed on family planning activities in national policies, strategies and plans, lack of funds and inadequate attention to family planning in recent years has meant that progress towards targets has stalled. In light of this, the Family Health Division is taking a leadership role to revitalize the family planning program in Nepal. The National Family Planning Program also seeks to expand and sustain quality family planning services throughout the health service network, including hospitals, primary health care (PHC) centers, health posts (HP), sub-health posts (SHP), primary health care outreach clinics (PHC/ORC), and mobile voluntary surgical contraception (VSC) camps (Ministry of Health and Population [MOHP], 2009). To this end, the Family Health Division (FHD) has initiated satellite clinics in all 75 districts. The Female Community Health Volunteers play an important role in providing information and distributing condoms and resupply of pills. In addition, the private sector and nongovernmental organizations (NGOs) have been encouraged to play a more effective role in the National Family Planning Program (National Planning Commission, 2002).

This chapter presents information on knowledge of various contraceptive methods and discusses past and current prevalence. For users of periodic abstinence (rhythm method), knowledge of the ovulatory cycle is examined; for those relying on sterilization, the timing of the procedure is assessed. Also discussed are the source of modern contraceptive methods, informed choice, discontinuation rates and reasons for discontinuation, unmet need for family planning, nonuse of contraception, and intention to use contraceptive methods in the future. In addition, information is provided on exposure to family planning messages through the media and contact with family planning providers. These topics are of practical use to policymakers in formulating efficient and effective family planning strategies and policies. Although the main focus of this chapter is on women, results from the male survey are also presented because men play an important role in the realization of reproductive goals. Wherever possible, comparisons are made with findings from previous surveys in order to evaluate trends in family planning in Nepal over time.

## 7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Knowledge of contraceptive methods is an important precursor to their use. The ability to recognize a family planning method when it is described is a simple test of a respondent's knowledge but not necessarily an indication of the extent of her or his knowledge. The 2011 NDHS collected information on knowledge of contraception by asking respondents whether or not they have heard about eight modern methods (female and male sterilization, the pill, intrauterine devices [IUDs], injectables, implants, male condoms, and emergency contraception) and two traditional methods (rhythm method and withdrawal). Respondents were also asked whether they knew about any other methods in addition to those listed.

Table 7.1 shows that knowledge of at least one contraceptive method is nearly universal in Nepal among both women and men. Modern methods are more widely known than traditional methods; almost all women know of a modern method, while 67 percent know of a traditional method. Female sterilization (99 percent), injectables (98 percent), male sterilization (95 percent), the pill (93 percent), and condoms (98 percent) are the most commonly known modern methods among women, with a slightly smaller percentage mentioning IUDs (83 percent). Emergency contraception is known by a relatively smaller percentage of women (29 percent). The extent of and patterns in knowledge of a modern method of family planning among currently married and never-married women are similar except that never-married women are slightly less knowledgeable than currently married women about contraceptive methods other than emergency contraception.

Table 7.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and never-married respondents age 15-49 who know any contraceptive method, by specific method, and mean number of methods known, Nepal 2011

		Women			Men	
Method	All women	Currently married women	Never- married women	All men	Currently married men	Never- married men
Any method	99.9	100.0	99.8	99.7	99.8	99.6
Any modern method Female sterilization Male sterilization Pill IUD Injectables Implants Condom Emergency contraception	99.9 98.9 94.6 93.0 83.2 98.4 89.6 97.6 28.8	100.0 99.4 96.0 94.6 84.3 99.0 92.5 98.2 26.2	99.8 97.0 89.4 87.4 79.6 96.0 79.6 95.7 38.8	99.7 96.2 94.5 84.9 74.6 93.7 71.8 99.1 38.7	99.8 97.9 96.5 86.9 76.6 95.5 76.3 98.9 35.3	99.6 93.0 90.7 81.4 72.1 90.5 64.3 99.6 45.8
Any traditional method Rhythm Withdrawal Other Mean number of methods known by respondents 15-49	67.4 46.1 57.8 0.7 7.9	72.5 48.1 64.4 0.6 8.0	49.9 39.6 34.9 1.2 7.4	74.6 56.4 67.9 1.3 7.8	77.4 61.0 70.6 0.8 8.0	70.1 48.7 63.5 2.3 7.5
Number of respondents	12,674	9,608	2,708	4,121	2,626	1,433

With respect to traditional methods, withdrawal and the rhythm method are known by 58 and 46 percent of all women, respectively. Overall, women know 7.9 contraceptive methods on average, while men know 7.8 methods.

Because knowledge of at least one method of contraception is nearly universal, there are few differences in knowledge by background characteristics (data not shown). The high level of knowledge could be attributed to the successful dissemination of family planning messages through the mass media.

## 7.2 CURRENT USE OF CONTRACEPTION

This section presents information on the prevalence of current contraceptive use among women age 15-49 at the time of the survey. Level of current use is the most widely employed and valuable measure of the success of family planning programs. The contraceptive prevalence rate (CPR) is usually defined as the percentage of currently married women who are currently using a method of contraception. Table 7.2 shows the percent distribution by age of all women and currently married women who are currently using specific family planning methods. Fifty percent of currently married women are using a method of family planning, including 43 percent who are using a modern method and 7 percent who are using a traditional method.

Contraceptive use varies by age. Use is lower among younger women (because they are in the early stage of family building) and older women (some of whom are no longer fecund) than among those at intermediate ages. Female sterilization is the most widely used modern method (15 percent) among currently married women. Half as many currently married women report the use of male sterilization (8 percent), while injectables are used by 9 percent of women. The CPR increases from 18 percent among women age 15-19 to 68 percent among women age 40-44 and declines thereafter.

		Any modern method					Mo	odern met	hod			Any	Trac	litional met	hod			
Age	Any method		Female sterili- zation	Male sterili- zation	Pill	IUD	Inject- ables	Implants	Condom	tradi- tional method	Rhythm	With- drawal	Other	Not currently using Tota	Total	Number of women		
								ALL WOME	N									
15-19 20-24	5.1 22.8	4.2 18.4	0.0 2.8	0.0 0.6	0.8 2.9	0.0 0.9	1.4 6.5	0.0 0.6	1.9 4.1	0.9 4.4	0.3 0.7	0.7 3.7	0.0 0.0	94.9 77.2	100.0 100.0	2,753 2,297		
25-29 30-34	42.3 57.2	36.4 50.2	10.8 18.0	3.7 9.1	4.9 5.3	1.6 1.3	9.0 10.7	1.1 1.5	5.2 4.3	5.9 7.1	0.7 0.8	5.2 6.2	0.0 0.0	57.7 42.8	100.0 100.0	2,101 1,734		
35-39 40-44 45-49	64.4 63.9 49.3	57.3 56.3 44.2	23.4 25.9 21.6	12.4 14.5 13.9	4.2 2.7 1.5	1.8 1.1 0.5	10.2 8.8 5.0	2.0 1.0 0.6	3.2 2.2 1.1	7.0 7.6 5.1	1.3 1.7 1.9	5.7 5.8 3.1	0.1 0.1 0.1	35.6 36.1 50.7	100.0 100.0 100.0	1,557 1,285 947		
Total	38.2	33.2	11.9	6.0	3.2	1.0	7.0	0.9	3.3	5.0	0.9	4.1	0.0	61.8	100.0	12,674		
						(	CURRENT	'LY MARRIE	D WOME	N								
15-19 20-24 25-29	17.6 29.5 46.3	14.4 23.8 39.8	0.0 3.6 11.8	0.0 0.8 4.0	3.0 3.7 5.4	0.0 1.2 1.8	4.9 8.5 9.9	0.1 0.7 1.2	6.5 5.2 5.7	3.1 5.8 6.5	0.9 0.9 0.7	2.2 4.9 5.7	0.0 0.0 0.0	82.4 70.5 53.7	100.0 100.0 100.0	792 1,761 1,914		
30-34 35-39 40-44	59.6 67.4 68.1	52.2 59.9 59.9	18.7 23.8 27.1	9.5 13.2 15.6	5.5 4.5 3.0	1.3 1.9 1.2	11.1 10.9 9.5	1.6 2.1 1.1	4.5 3.5 2.3	7.4 7.5 8.2	0.8 1.4 1.8	6.5 6.1 6.3	0.0 0.1 0.1	40.4 32.6 31.9	100.0 100.0 100.0	1,659 1,461 1,190		
45-49	53.7	48.0	22.9	15.1	1.7	0.6	5.7	0.7	1.3	5.8	2.1	3.5	0.1	46.3	100.0	832		
Total	49.7	43.2	15.2	7.8	4.1	1.3	9.2	1.2	4.3	6.5	1.1	5.4	0.0	50.3	100.0	9,608		

One of the Millennium Development Goals (MDGs) for Nepal is to increase the CPR to 67 percent by 2015. The results of the 2011 NDHS show that modern contraceptive use has not increased in the past five years. There could be various underlying causes behind the stagnation, such as the legalization of abortion; outmigration of people of reproductive age for employment, leading to spousal separation; and increased use of traditional methods. However, such possibilities can be validated only after further analysis on this topic.

## 7.3 CURRENT USE OF CONTRACEPTION BY BACKGROUND CHARACTERISTICS

Analyzing current use of contraception by background characteristics is important because it helps identify subgroups of the population to target for family planning services. Table 7.3 presents the percent distribution of currently married women by their use of family planning methods, according to background characteristics. This table allows a comparison of levels of current contraceptive use across major population groups and an examination of differences in use in the various subgroups.

There is a direct association between use of family planning methods and the number of children women have, except in the case of women with five or more children. Only 12 percent of women with no living children use contraception; the percentage increases to 47 percent among women with one or two children and 65 percent among women with three or four children before declining to 54 percent among women with five or more children. Use of female sterilization is highest among women with three or four living children (29 percent), with a decline to 18 percent among women with five or more children. Use of injectables rises with parity, from less than 1 percent of women with no children to 13 percent of women with five or more children. Injectables are popular because they are more easily accessible, with supplies available at most health facilities (MOHP, 2009). Moreover, the expansion of the Sangini Franchising Network, which franchises injectable contraceptives through a network of pharmacies under a local brand name (*Sangini-Tin Mahine Sui*) in all 75

districts, has increased rural women's access to injectables (Nepal CRS Company, 2011). These injectable contraceptives work for a relatively longer duration, they are convenient to use, and their use can be kept private.

There is a direct relationship between contraceptive use by a woman and the presence or absence of her husband. Use of any method is almost three times higher among women whose husbands are living with them (62 percent) than among women whose husbands do not live with them (23 percent). A similar pattern is seen in use of modern methods (53 percent and 23 percent, respectively).

#### Table 7.3 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Nepal 2011

					Mo	odern met	hod			Any	Trac	ditional me	thod	_		
Background characteristic	Any method	Any modern method	Female sterili- zation	Male sterili- zation	Pill	IUD	Inject- ables	Implants	Condom	tradi- tional method	Rhythm	With- drawal	Other	Not currently using	Total	Numbe of wome
Number of living children																
0	12.2	9.0	0.0	1.3	1.3	0.0	0.6	0.0	5.7	3.3	0.4	2.9	0.0	87.8	100.0	1,075
1-2 3-4	46.8 65.4	38.8 60.0	8.7 28.9	5.7 12.7	5.3 3.7	1.6 1.0	10.1 9.7	0.9 1.7	6.3 2.1	8.0 5.5	1.1 1.3	6.9 4.1	0.0 0.1	53.2 34.6	100.0 100.0	4,442 3,09
5+	54.1	47.4	17.8	9.0	3.1	2.0	12.8	1.8	1.1	6.7	1.8	4.7	0.2	45.9	100.0	3,09 999
Living arrangements Husband and wife live together	62.1	52.9	16.7	9.3	5.7	1.6	12.1	1.4	6.1	9.2	1.6	7.5	0.1	37.9	100.0	6,530
Husband lives away	23.4	22.5	12.0	4.6	0.9	0.6	2.9	0.8	0.7	1.0	0.2	0.8	0.0	76.6	100.0	3,077
Residence																
Urban	59.6	49.8	13.5	6.8	6.1	1.9	10.4	1.7	9.4	9.8	1.7	7.9	0.1	40.4	100.0	1,261
Rural	48.2	42.1	15.4	8.0	3.8	1.2	9.0	1.1	3.6	6.0	1.1	5.0	0.0	51.8	100.0	8,346
Ecological zone Mountain	48.3	43.1	3.0	17.1	3.0	2.4	12.3	2.4	3.0	5.3	1.5	3.8	0.0	51.7	100.0	630
Hill	48.2	40.6	7.1	10.6	4.1	1.2	10.6	1.8	5.0	7.6	1.3	6.2	0.0	51.8	100.0	3,784
Terai	51.0	45.0	22.5	4.7	4.3	1.2	7.8	0.6	4.0	5.9	1.0	4.9	0.0	49.0	100.0	5,193
Development region																
Eastern	46.4	36.2	10.9	2.9	5.8	0.5	12.0	0.7	3.4	10.2	2.3	7.8	0.1	53.6	100.0	2,29
Central Western	54.7 46.1	49.9 38.7	20.4 13.5	9.4 9.8	3.4 3.9	2.1 1.2	9.0 5.8	1.6 0.7	4.0 3.9	4.8 7.4	1.1 0.8	3.7 6.6	0.1 0.0	45.3 53.9	100.0 100.0	3,21 2.03
Mid-western	46.9	42.8	11.5	9.8	3.1	1.4	9.3	2.4	5.4	4.0	0.6	3.4	0.0	53.1	100.0	1,14
Far-western	51.9	47.1	16.0	8.0	4.5	0.7	10.1	0.4	7.5	4.8	0.2	4.7	0.0	48.1	100.0	925
Subregion																
Eastern mountain	44.4	34.8	0.7	8.4	4.0	1.0	17.5	1.1	2.1	9.6	4.2	5.4	0.0	55.6	100.0	16
Central mountain Western mountain	59.4 43.1	54.2 40.4	6.8 1.7	20.3 20.2	3.0 2.2	6.1 0.7	12.3 9.0	3.9 2.1	1.8 4.5	5.2 2.6	1.3 0.0	3.9 2.6	0.0 0.0	40.6 56.9	100.0 100.0	19 27
Eastern hill	42.8	32.0	3.3	4.0	5.1	0.9	14.6	1.1	3.0	10.7	2.5	8.0	0.3	57.2	100.0	70
Central hill	62.2	54.2	8.0	10.3	6.5	2.2	15.9	3.7	7.6	8.0	2.2	5.7	0.1	37.8	100.0	1,10
Western hill	42.9	35.2	8.6	14.0	2.7	0.9	4.9	0.6	3.5	7.7	0.4	7.3	0.0	57.1	100.0	1,16
Mid-western hill	41.6 41.2	37.7	7.1	12.6	2.2 2.0	0.7 0.6	7.3	2.4 0.6	5.3 5.9	3.9 5.1	0.8 0.0	3.1 5.1	0.0 0.0	58.4 58.8	100.0 100.0	51) 30
Far-western hill Eastern terai	41.2	36.1 38.4	7.4 15.8	10.6 1.7	2.0 6.3	0.6	9.1 10.0	0.6	5.9 3.8	5.1 10.0	0.0 1.9	5.1 8.0	0.0	58.8 51.6	100.0	1.42
Central terai	50.0	47.0	28.9	7.7	1.7	1.6	4.7	0.2	2.1	2.9	0.4	2.5	0.0	50.0	100.0	1,91
Western terai	50.3	43.4	20.0	4.3	5.4	1.5	6.9	0.7	4.6	6.9	1.2	5.8	0.0	49.7	100.0	86
Mid-western terai Far-western terai	54.2 60.1	49.3 55.1	19.0 25.0	3.8 3.1	4.0 6.9	2.1 0.8	11.8 10.6	2.2 0.1	6.4 8.6	4.9 4.9	0.7 0.3	4.2 4.6	0.0 0.0	45.8 39.9	100.0 100.0	499 48
Education	00.1	55.1	20.0	5.1	0.9	0.0	10.0	0.1	0.0	7.3	0.5	4.U	0.0	53.5	100.0	40
No education	52.8	48.8	22.5	9.3	3.3	1.1	9.4	1.3	1.9	3.9	1.1	2.8	0.0	47.2	100.0	4,58
Primary	47.0	40.5	11.8	9.1	4.0	1.3	10.0	1.5	2.9	6.6	0.8	5.6	0.1	53.0	100.0	1,84
Some secondary	46.1	37.9	8.4	5.4	6.3	1.4	9.3	0.7	6.4	8.2	1.1	7.1	0.0	53.9	100.0	1,83
SLC and above	47.7	34.6	4.0	4.5	4.5	1.7	7.2	0.8	11.9	13.1	1.8	11.3	0.0	52.3	100.0	1,35
Vealth quintile	40.4	35.6	8.5	7.0	2.2	0.7	11.4	1.9	2.1	4.8	10	3.6	0.0	59.6	100.0	1.00
Lowest Second	40.4 46.3	35.6 41.1	8.5 16.3	7.9 6.8	3.2 2.8	0.7	9.4	1.9	2.1	4.8 5.2	1.2 0.7	3.6 4.5	0.0	59.6 53.7	100.0	1,66 1,84
Middle	48.2	43.3	19.3	7.3	3.8	1.0	8.3	0.7	2.0	4.9	1.0	3.8	0.1	51.8	100.0	2,02
Fourth	52.0	45.3	17.2	9.5	4.2	1.0	8.5	0.8	4.1	6.7	1.0	5.7	0.0	48.0	100.0	2,05
Highest	59.6	48.9	13.5	7.5	6.4	2.0	8.8	1.2	9.4	10.6	1.8	8.8	0.1	40.4	100.0	2,02
otal	49.7	43.2	15.2	7.8	4.1	1.3	9.2	1.2	4.3	6.5	1.1	5.4	0.0	50.3	100.0	9,60

Note: If more than one method is used, only the most effective method is considered in this tabulation. Total includes one woman who uses a modern method not listed. SLC = School Leaving Certificate

Urban women are more likely to use a family planning method than rural women, reflecting wider availability and easier access to methods in urban than in rural areas. The CPR for any method is 60 percent in urban areas, compared with 48 percent in rural areas. Condom use is nearly three times higher in urban than in rural areas.

Overall, use of contraceptives does not vary extensively by ecological zone, although differences in use of modern methods are slightly more pronounced. Much of the variation in use of modern methods is due to differences in the use of female and male sterilization and injectables. Female sterilization is more popular in the terai, where 23 percent of currently married women are using this method, than in the hill (7 percent) or

mountain (3 percent) zone. On the other hand, male sterilization and injectables are more popular in the mountain and hill zones than in the terai. While 17 percent of women in the mountain zone and 11 percent of women in the hill zone reported using male sterilization, only 5 percent of women in the terai did so. By development region, use of modern methods is highest in the Central region (50 percent) and lowest in the Eastern region (36 percent). Female sterilization is especially popular in the Central region (20 percent). There are small variations in the use of injectables by development region, with women in the Western region showing the lowest coverage (6 percent).

Current use of modern contraceptive methods is highest in the Far-western terai (55 percent) and lowest in the Eastern hill subregion (32 percent). Female sterilization is especially popular in the Central terai (29 percent) and male sterilization in the Western and Central mountain subregions (20 percent each). Injectables are popular in the Eastern mountain (18 percent), Central hill (16 percent), and Eastern hill (15 percent) subregions. Use of traditional methods is most popular in the Eastern hill subregion (11 percent).

The impact of education on contraceptive use is mixed. Use of any method is higher among women with no education (53 percent) than among women with at least some education (46-47 percent). Use of a modern method is also highest among women with no education and decreases with increasing education. The primary reason for the higher prevalence of contraceptive use among women with little or no education is that a sizable proportion of these women use sterilization, while women with at least some secondary education are more likely to use non-permanent methods such as injectables.

Wealth has a positive association with women's contraceptive use. Modern contraceptive use increases as household wealth increases, from 36 percent among currently married women in the lowest wealth quintile to 49 percent among those in the highest wealth quintile.

#### 7.4 TRENDS IN CURRENT USE OF FAMILY PLANNING

Trends in current use of family planning can be used to monitor and evaluate the success of family planning programs over time. Table 7.4 and Figure 7.1 show trends in modern contraceptive use among currently married women from 1996 to 2011. Data from four DHS surveys conducted in Nepal over the past 15 years show an impressive increase in the use of modern contraceptive methods from 26 percent in 1996 to 43 percent in 2011. The increase in the use of modern contraceptives is due mainly to increased use of female sterilization, injectables, the pill, and condoms between 1996 and 2006. However, as a result of several possible factors, the increase in contraceptive use has not been sustained in the past five years. There has been a decline in the use of female sterilization and injectables, while the use of male sterilization has increased slightly. It is also notable that the long-term use of temporary methods such as implants and IUDs has been

Table 7.4 Trends in current use of contraceptive methods

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to selected sources, Nepal 1996-2011

Method	1996 NFHS <sup>1</sup>	2001 NDHS <sup>2</sup>	2006 NDHS <sup>3</sup>	2011 NDHS
Any method	28.5	39.3	48.0	49.7
Any modern method Female sterilization Male sterilization Pill Injectables Condom Implants IUD	<b>26.0</b> <sup>a</sup> 12.1 5.4 1.4 4.5 1.9 0.4 0.3	<b>35.4</b> <sup>a</sup> 15.0 6.3 1.6 8.4 2.9 0.6 0.4	<b>44.2</b> 18.0 6.3 3.5 10.1 4.8 0.8 0.7	<b>43.2</b> 15.2 7.8 4.1 9.2 4.3 1.2 1.3
Any traditional method Rhythm Withdrawal Other	<b>2.5</b> 0.9 1.4 0.2	<b>3.9</b> 1.1 2.6 0.3	<b>3.7</b> 1.2 2.6 0.0	<b>6.5</b> 1.1 5.4 0.0
Not currently using	71.5	60.7	52.0	50.3
Total	100.0	100.0	100.0	100.0
Number of women	7,982	8,342	8,257	9,608

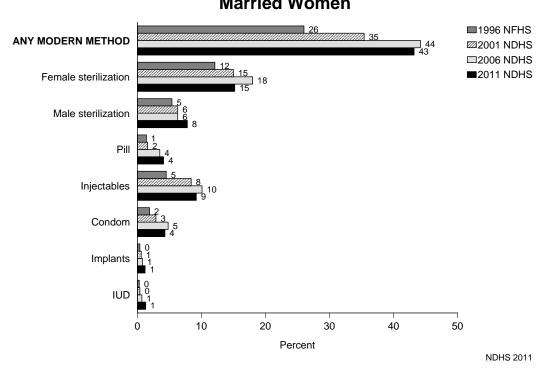
Pradhan et al., 1997

MOHP, New ERA, and ORC Macro, 2002

<sup>3</sup> MOHP, New ERA, and Macro International Inc., 2007 <sup>a</sup> Includes users of vaginal methods

increasing over the past few years, providing options for women to drift away from permanent methods such as sterilization. Use of traditional methods has also increased over the years.

Table 7.4 shows that the proportion of currently married women who are using a method of contraception has increased by 4 percent in the past five years, primarily as a result of an increase in the use of traditional methods from 4 percent in 2006 to 7 percent in 2011.



## Figure 7.1 Trends in Contraceptive Use among Currently **Married Women**

#### 7.5 TIMING OF FEMALE STERILIZATION

Given the importance of female sterilization as a means of preventing pregnancies among women in high-risk groups, the family planning program in Nepal emphasizes dissemination of information about this method. The program also provides services in accordance with a women's age and health status. Trends in the use of sterilization as a family planning method are of interest, especially trends in women's age at the time of the operation.

Table 7.5 shows the percent distribution of sterilized women by age at the time of sterilization, according to the number of years since the operation. As expected, the vast majority (93 percent) of women were age 34 or younger at the time of sterilization. Thus, female sterilization in Nepal occurs early in women's reproductive lives. The median age at sterilization among women sterilized before age 40 (27 years) has not changed much over the past 10 years.

Table 7.5 Tim	ning of ster	<u>ilization</u>						
Percent distrit sterilization, a							tion and med	lian age at
Years since		Age at	time of ster	ilization			Number	Median
operation	<25	25-29	30-34	35-39	40-44	Total	of women	age <sup>1</sup>
<2	32.6	31.3	22.2	9.2	4.7	100.0	144	27.2
2-3	29.9	42.3	18.5	7.8	1.5	100.0	182	26.8
4-5	37.3	36.5	15.8	6.8	3.6	100.0	156	26.8
6-7	29.5	36.6	25.2	6.4	2.3	100.0	176	27.5
8-9	23.8	38.4	26.5	11.3	0.0	100.0	149	27.6
10+	33.9	43.9	20.2	2.0	0.0	100.0	699	а
Total	32.2	40.3	20.9	5.3	1.3	100.0	1,506	27.0

a = Not calculated due to censoring <sup>1</sup> Median age at sterilization is calculated only for women sterilized before age 40 to avoid problems of censoring.

### 7.6 SOURCE OF CONTRACEPTION

Table 7.6 documents the main sources of contraception for users of different modern methods. Such information on where women obtain their contraceptive method is important for program managers and implementers in designing family planning policies and programs. All current users of modern contraceptive methods were asked the most recent source of their methods. The government sector remains the major source of contraceptive methods in Nepal, providing methods to 69 percent of current users (however, the share of the government sector as a source of modern methods has decreased from 77 percent in 2006). Within the government sector, one-third of users obtain their methods from government hospitals, 13 percent from mobile clinics, and 9 percent from government sub-health posts.

Nine percent of users obtain their methods from the nongovernment sector, mostly from Marie Stopes (6 percent) and the Family Planning Association of Nepal (2 percent).

Twenty percent of modern contraceptive users obtain their methods from the private sector, primarily from pharmacies (11 percent) and private hospitals/clinics (8 percent). It is worth noting that the percentage of users obtaining their methods from the private sector has increased by 43 percent in the past five years (from 14 percent in 2006).

### Table 7.6 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Nepal 2011

Source	Female sterilization	Male sterilization	Pill	IUD <sup>1</sup>	Injectables	Implants <sup>1</sup>	Condom	Total
Government sector	77.8	83.6	50.9	57.9	69.0	66.6	32.3	69.0
Government hospital/clinic	55.3	47.5	6.2	24.1	9.7	30.3	4.7	33.0
PHC center	2.9	3.6	2.1	12.0	4.8	10.2	2.8	3.8
Health post	0.0	0.0	8.4	2.3	16.5	13.6	4.7	5.2
Sub-health post	0.0	0.0	16.0	9.8	30.0	3.9	10.1	9.2
PHC outreach	0.0	0.0	0.6	0.7	7.0	0.7	0.3	1.6
Other government	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Mobile clinic	19.4	32.5	0.0	9.0	0.3	7.9	0.0	13.3
FCHV	0.0	0.0	17.6	0.0	0.7	0.0	9.3	2.7
Condom box	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Nongovernment (NGO) sector	13.6	8.7	1.1	13.8	4.8	12.3	2.1	8.5
FPAN	2.0	3.1	0.6	5.4	2.9	2.0	0.5	2.2
Marie Stopes	10.1	5.5	0.3	8.0	1.3	8.8	0.7	5.5
Nepal Red Cross	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
UMN	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other NGO	1.2	0.1	0.2	0.3	0.6	1.5	0.8	0.7
Private medical	8.3	5.3	44.6	7.7	25.7	4.1	59.3	19.8
Private hospital/clinic	8.3	5.3	10.8	4.6	8.8	4.1	6.7	7.7
Pharmacy	0.0	0.0	31.5	2.3	12.1	0.0	52.2	10.8
Sangini outlet	0.0	0.0	2.4	0.0	4.7	0.0	0.3	1.2
Other private medical	0.0	0.1	0.0	0.9	0.0	0.0	0.0	0.0
Other source	0.0	0.0	2.7	0.0	0.5	0.0	4.8	0.8
Shop	0.0	0.0	0.4	0.0	0.1	0.0	1.7	0.2
Friend/relative	0.0	0.0	2.4	0.0	0.4	0.0	3.2	0.6
Other	0.4	0.3	0.6	0.0	0.1	0.0	1.5	0.4
Don't know	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.4
Missing	0.0	0.0	0.0	20.6	0.0	17.0	0.0	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,506	760	400	124	882	114	421	4,208

PHC = Primary health care

FCHV = Female community health volunteer

FPAN = Family Planning Association of Nepal

UMN = United Mission of Nepal

<sup>1</sup> For users of implants, the source is where the respondent obtained the method when she started the current episode of use. Source of method is missing for IUD and implant users if they began using the method more than five years before the survey.

Female and male sterilizations are performed mostly in government hospitals (55 and 48 percent, respectively) and mobile clinics (19 percent and 33 percent, respectively). Half of pill users obtain their supply from a government source (51 percent), primarily from female community health volunteers (FCHVs) (18 percent) and government sub-health posts (16 percent). Pill users who obtain their supply from a private medical source primarily go to pharmacies (32 percent) and private hospital/clinics (11 percent). Seven in 10 women who use injectables obtain them from a government source, primarily sub-health posts (30 percent) and health posts (17 percent). Of special note is that 17 percent of women obtain injectables from pharmacies, including

Sangini outlets. Condoms are obtained primarily from private medical sources (59 percent), of which 52 percent are pharmacies. Although these findings point to the continued reliance on government facilities as a major source of contraceptives, the role of the private sector and the nongovernment sector cannot be ignored.

#### 7.7 BRANDS OF PILLS AND CONDOMS USED

The government of Nepal, with the assistance of USAID/Nepal, has engaged in social marketing of contraceptives through the Nepal CRS Company since 1978 (MOHP, 2011a). Among the various products launched through social marketing, contraceptive methods account for a major portion. Nilocon White and Sunaulo Gulaph are the two brands of oral contraceptives that have been promoted through social marketing. Dhaal and Panther are the two condom brands launched through the CRS Company.

Information on women's use of socially marketed contraceptives is useful for monitoring and evaluating the success of social marketing programs. In 2011, for the first time, the NDHS collected information on the brands of pills and condoms used by women and men. Women age 15-49 who were using oral contraceptives and condoms were asked for the brand name of the pills and condoms they last used.

Table 7.7 shows that, among pill users, Nilocon White (40 percent) and Sunaulo Gulaph (28 percent) are the most commonly used brands. Nilocon White is the most popular brand among women regardless of their background characteristics. Although there are many brands of condoms on the market, the most popular are Dhaal (26 percent) and Panther (23 percent).

Toble 77	Use of social marketing brand pills and condoms
	Use of social marketing brand plus and condoms

Percentage of pill and condom users age 15-49 using a specific social marketing brand, by background characteristics, Nepal 2011

		Among pill users		Ar	nong condom us	ers
Background characteristic	Percentage using Nilocon White	Percentage using Sunaulo Gulaph	Number of women using the pill	Percentage using Dhaal	Percentage using Panther	Number of women using condoms
Age						
15-19	(38.1)	(33.0)	23	22.5	20.3	50
20-24	32.3	33.6	66	30.8	16.1	89
25-29	43.1	23.6	101	25.2	25.4	102
30-34	45.4	28.8	92	19.1	23.0	71
35-39	41.3	23.6	65	28.6	28.1	49
40-44	(27.7)	(34.3)	35	(33.9)	(19.0)	26
45-49	*	*	14	*	*	9
Residence						
Urban	51.0	22.5	78	22.6	29.5	113
Rural	36.9	28.9	319	26.8	20.5	283
Ecological zone						
Mountain	(20.2)	(21.8)	19	(41.7)	(18.9)	18
Hill	¥4.0	26.3	156	22.3	25.6	179
Terai	38.2	29.0	222	27.1	21.2	199
Development region						
Eastern	37.3	36.3	132	34.5	28.4	78
Central	48.5	14.6	111	18.7	26.8	124
Western	48.1	28.0	76	23.5	25.1	68
Mid-western	30.1	33.9	36	19.0	19.3	57
Far-western	16.6	28.6	42	35.6	11.7	69
Education						
No education	32.2	21.5	148	30.0	14.2	80
Primary	34.5	27.2	75	27.1	20.0	49
Some secondary	43.1	38.9	114	25.9	23.8	114
SLC and above	57.8	22.1	60	22.7	28.2	154
Wealth guintile						
Lowest	11.6	28.3	51	(33.5)	(10.4)	31
Second	38.3	25.1	52	`35.9 <sup>´</sup>	`18.6 <sup>´</sup>	44
Middle	29.2	28.5	77	33.3	11.3	57
Fourth	43.6	34.1	87	19.8	26.8	83
Highest	54.7	23.5	130	22.0	28.4	180
Total	39.7	27.6	397	25.6	23.1	396

Note: Table excludes pill and condom users who do not know the brand name. Condom use is based on women's reports. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

#### 7.8 **INFORMED CHOICE**

Informed choice is an important tool for assessing, monitoring and evaluating the quality of family planning services. Current users of modern methods of contraception were asked whether they were informed about side effects or problems they might have with a method, what to do if they experienced side effects, and other methods they could use. This information assists users in coping with side effects and decreases unnecessary discontinuations. Moreover, such data serve as a measure of the quality of family planning service provision. Table 7.8 presents results by method type and source.

Sixty-three percent of modern contraceptive users were informed by a health or family planning worker about potential side effects of the method they use, 59 percent were informed about what to do if they experienced side effects, and 54 percent were informed of other available methods of contraception.

Users were slightly less likely to receive information about side effects or problems from a private medical facility (60 percent) than from a government or nongovernment facility (64 percent each). The same was true of information on what to do if side effects were experienced; 55 percent of users of a modern contraceptive method were given the information in a private medical facility, as compared with 60 percent in a government facility and 62 percent in a nongovernment facility.

#### Table 7.8 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source, Nepal 2011

	Among won		ode of modern contracep eceding the survey:	tive method
Method/source	Percentage who were informed about side effects or problems of method used	informed about what to	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method	10.0	10.1	<b>22</b> 4	100
Female sterilization	42.8	42.4	30.1	403
Pill	57.8	54.3	55.7	313
IUD	89.6	86.4	71.6	91
Injectables	72.7	64.1	63.7	642
Implants	82.2	81.5	75.3	86
Initial source of method <sup>1</sup>				
Public sector	64.3	59.7	58.0	1,009
Hospital/clinic	55.7	54.3	47.4	331
PHC center	63.0	62.4	70.4	92
Health post	74.5	70.4	73.2	142
Sub-health post	69.9	60.3	59.7	282
PHC OUTREACH	(75.7)	(67.0)	(68.1)	38
Mobile clinic	57.7	52.0	43.5	78
FCHV	(64.6)	(62.8)	(68.6)	47
Nongovernment (NGO) sector	64.2	61.5	48.8	161
FPAN	(78.3)	(78.3)	(70.4)	35
Marie Stopes	60.8	58.1	41.6	113
Other NGO	*	*	*	13
Private medical	60.3	54.7	46.5	363
Private hospital/clinic/nursing home	62.3	59.0	47.5	146
Pharmacy	57.7	49.1	43.3	173
Sangini outlet	(64.8)	(62.9)	(56.4)	41
Other	(3.1.6)	*	*	2
Total	63.3	58.7	54.3	1,533

Note: Table includes users of only the methods listed individually. Total excludes users who obtained their methods from friends/relatives/shops. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Source at start of current episode of use

### 7.9 CONTRACEPTIVE DISCONTINUATION RATES

Couples can realize their reproductive goals only when they consistently and correctly use contraceptive methods. A prominent concern for family planning programs is the rate at which contraceptive users discontinue using their methods. In the "Calendar" section of the Woman's Questionnaire, all segments of contraceptive use from 3-59 months prior to the survey are recorded. The month of interview and the two months prior to the survey are ignored in order to avoid the bias that may be introduced by unrecognized pregnancies. One-year contraceptive discontinuation rates based on the calendar data are presented in Table 7.9.

Overall, 51 percent of the episodes of contraceptive use were discontinued within 12 months of starting its use for any reason. Twenty-six percent of episodes of discontinuation occurred because the women's husbands were away, 12 percent was due to the fear of side effects or health concerns, and 5 percent because the woman wanted to become pregnant.

Discontinuation rates vary by method. Rates are highest for pill and male condom (71 percent and 63 percent, respectively), followed by injectables (55 percent) and withdrawal (51 percent).

#### Table 7.9 Twelve-month contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by reason for discontinuation and specific method, Nepal 2011

Method	Method failure	Desire to become pregnant	Other fertility- related reasons <sup>2</sup>	Side effects/ health concerns	Wanted more effective method	Other method- related reasons <sup>3</sup>	Husband away	Other reason	Any reason⁴	Switched to another method <sup>5</sup>
Pill	3.0	5.7	1.9	15.0	2.0	1.1	40.8	1.1	70.6	6.4
Injectables	0.6	3.4	1.1	26.3	1.5	0.6	20.2	1.1	54.8	10.2
Male condom	4.0	11.7	3.2	0.6	5.4	4.6	29.3	4.1	63.0	8.2
Withdrawal	6.7	3.4	1.6	0.1	3.3	0.2	35.5	0.5	51.4	3.4
All methods <sup>1</sup>	2.5	4.9	1.5	11.7	2.4	1.2	25.5	1.4	51.2	6.7

Note: Figures are based on life table calculations using information on episodes of use that began 3-62 months preceding the survey. Female sterilization is excluded as there are no failure cases.

<sup>1</sup> Implants and male sterilization are included in the discontinuation rate for all methods but not listed separately.

<sup>2</sup> Includes infrequent sex, difficulty in getting pregnant/menopausal, and marital dissolution/separation

<sup>3</sup> Includes lack of access/too far, costs too much, and inconvenient to use

<sup>4</sup> Reasons for discontinuation are mutually exclusive and add to the total given in this column.

<sup>5</sup> The episodes of use included in this column are a subset of the discontinued episodes included in the discontinuation rate. A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she cited "wanted a more effective method" as the reason for discontinuation and started another method within two months of discontinuation.

## 7.10 REASONS FOR DISCONTINUATION OF CONTRACEPTIVE USE

Another perspective on discontinuation of modern contraceptive use is provided in Table 7.10, which shows the percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by reasons for discontinuation, according to method. The most common reason for discontinuing a method is that the husband is away (40 percent), followed by side effects or health concerns (24 percent), desire to become pregnant (13 percent), becoming pregnant while using or method failure (7 percent), and wanting a more effective method (6 percent). It is worth noting that the reason most often cited for discontinuing use of IUDs, injectables, and implants is side effects or health concerns (59 percent, 46 percent, and 40 percent, respectively). Absence of the husband was the reason most often reported for discontinuing use of the pill, condom, rhythm method, and withdrawal.

### Table 7.10 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason stated for discontinuation, according to specific method, Nepal 2011

Reason	Pill	IUD	Injectables	Implants	Condom	Rhythm	Withdrawal	All methods
Became pregnant while using	7.4	0.4	1.7	0.0	8.6	14.5	15.8	6.8
Wanted to become pregnant	8.6	4.6	9.9	17.3	21.9	33.9	14.0	12.8
Husband disapproved	0.8	0.0	0.6	5.4	3.8	3.0	1.4	1.5
Wanted a more effective method	3.8	2.9	3.9	3.9	10.0	13.2	9.8	6.1
Side effects/health concerns	24.0	59.1	46.1	39.6	1.0	0.0	0.3	24.2
Lack of access/too far	0.4	0.0	0.9	1.6	0.5	0.0	0.0	0.6
Inconvenient to use	0.8	7.1	0.1	3.1	6.6	0.0	1.0	1.8
Difficult to get pregnant/								
menopausal	0.2	0.0	0.7	2.8	0.4	0.4	0.7	0.6
Infrequent sex	3.0	4.1	1.5	0.0	4.2	8.6	2.9	2.7
Marital dissolution/separation	0.2	0.0	0.7	0.0	0.1	0.0	0.1	0.3
Husband away	49.2	18.9	30.3	11.3	40.5	23.1	52.3	40.0
Other	1.2	2.9	3.4	15.0	2.0	0.3	1.5	2.4
Don't know	0.0	0.0	0.0	0.0	0.4	2.1	0.0	0.1
Missing	0.1	0.0	0.0	0.0	0.0	0.7	0.3	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	1,125	57	1,598	51	810	76	710	4,434

Note: Total includes seven cases in which women reported discontinuation while using other methods.

### 7.11 KNOWLEDGE OF FERTILE PERIOD

An elementary knowledge of reproductive physiology provides a useful background for the successful practice of the rhythm method. As shown in Table 7.1 and Table 7.3, 48 percent of married women have heard of the rhythm method, but only 1 percent are currently using the method. Table 7.11 shows women's knowledge about the time during the menstrual cycle when a woman is most likely to get pregnant.

Overall, only 25 percent of all women correctly reported the most fertile time as being halfway between two menstrual periods. Among users of the rhythm method, 52 percent were able to correctly identify a woman's monthly cycle; 46 percent incorrectly reported that a woman's most fertile period is directly after menstruation has ended. Knowledge of the fertile period among Nepalese women is limited; 16 percent of all women and 17 percent of those not using the rhythm method did not know about the fertile period. These results indicate a continued need for education about women's physiology of reproduction and effective use of contraceptive methods.

Table 7.11 Knowledge of fertil	e period		
Percent distribution of women ovulatory cycle, according to c			
Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual			
period begins	0.0	2.0	2.0
During her menstrual period	0.0	2.7	2.7
Right after her menstrual			
period has ended	46.0	45.6	45.6
Halfway between two			
menstrual periods	51.7	24.8	25.0
No specific time	0.5	8.4	8.3
Don't know	1.8	16.5	16.4
Total	100.0	100.0	100.0
Number of women	110	12,564	12,674

### 7.12 NEED AND DEMAND FOR FAMILY PLANNING SERVICES

Data in this section provide information on the extent of need and potential demand for family planning services in Nepal. Currently married fecund women who want to postpone their next birth for two or more years or who want to stop childbearing altogether but are not using a contraceptive method are considered to have an unmet need for family planning. Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted. Similarly, amenorrheic women who are not using family planning and whose last birth was mistimed are considered to have an unmet need for spacing, and those whose last child

was unwanted have an unmet need for limiting. Women who are currently using a family planning method are said to have a met need for family planning. Total demand for family planning services comprises those who fall in the met need and unmet need categories.

Table 7.12 shows need and demand for family planning among currently married women by background characteristics. Twenty-seven percent of currently married women have an unmet need for family planning, with 10 percent having an unmet need for spacing and 17 percent having an unmet need for limiting. Fifty percent of women have a met need for family planning. If all currently married women who say they want to space or limit their children were to use a family planning method, the contraceptive prevalence rate would increase to 77 percent. Currently, only 65 percent of the family planning needs of married women are being met.

	Unmet nee	ed for family	planning <sup>1</sup>	Met need for family planning (currently using) <sup>2</sup>			Total demand for family planning <sup>3</sup>			Percentage	Percentage of demand satisfied by		
Background characteristic	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	of demand satisfied	modern methods	Number of women	
Age													
15-19	37.5	4.0	41.5	13.3	4.3	17.6	51.1	8.3	59.4	30.2	24.3	792	
20-24	23.3	13.5	36.8	13.2	16.3	29.5	37.5	29.9	67.4	45.4	35.2	1,761	
25-29	8.5	22.0	30.5	6.9	39.4	46.3	15.5	62.0	77.5	60.6	51.3	1,914	
30-34	2.0 1.0	24.0 19.7	26.1 20.7	2.8 0.4	56.7 67.0	59.6 67.4	5.0 1.4	80.9	85.9 88.4	69.7 76.6	60.7 67.8	1,659	
35-39 40-44	0.4	19.7	20.7 15.8	0.4	68.1	67.4	0.4	86.9	83.9	76.6 81.1	71.3	1,461 1,190	
40-44 45-49	0.4	15.4	13.2	0.0	53.7	53.7	0.4	83.5 66.7	67.0	80.4	71.6	832	
Residence													
Urban	6.4	13.1	19.6	9.4	50.2	59.6	16.5	63.4	79.9	75.5	62.3	1,261	
Rural	10.1	18.0	28.1	4.8	43.4	48.2	15.2	61.6	76.8	63.4	54.9	8,346	
Ecological zone													
Mountain	7.5	16.8	24.3	4.6	43.8	48.3	12.5	61.3	73.8	67.0	58.4	630	
Hill	9.4	20.3	29.7	5.8	42.4	48.2	15.5	62.9	78.4	62.1	51.7	3,784	
Terai	10.1	15.3	25.3	5.3	45.7	51.0	15.6	61.1	76.6	66.9	58.8	5,193	
Development region													
Eastern	11.5	18.5	30.0	6.7	39.6	46.4	18.5	58.3	76.8	61.0	47.1	2,293	
Central	8.1	13.5	21.6	4.9	49.8	54.7	13.3	63.5	76.7	71.8	65.1	3,210	
Western	11.5	22.5	34.0 26.1	4.3	41.8 41.4	46.1	16.0	64.6	80.6 73.7	57.8	48.0 58.1	2,031 1,149	
Mid-western Far-western	9.1 6.8	17.0 17.3	26.1 24.1	5.4 6.5	41.4	46.9 51.9	15.1 13.5	58.6 62.9	76.3	64.6 68.5	61.7	925	
	0.0			0.0	1011	01.0	10.0	02.0	10.0	00.0	0111	020	
Subregion Eastern mountain	7.7	20.6	28.3	5.7	38.7	44.4	14.3	60.5	74.8	62.2	46.6	169	
Central mountain	5.5	14.4	20.0	3.3	56.1	59.4	9.3	71.2	80.5	75.2	67.3	190	
Western mountain	8.8	16.1	24.9	4.7	38.4	43.1	13.7	54.9	68.5	63.7	59.0	271	
Eastern hill	11.3	20.2	31.6	5.5	37.2	42.8	17.2	57.8	74.9	57.9	42.7	702	
Central hill	5.3	14.9	20.2	9.2	53.0	62.2	14.9	67.9	82.8	75.6	65.4	1,103	
Western hill	12.0	24.1	36.1	3.9	39.0	42.9	16.2	63.5	79.7	54.7	44.2	1,164	
Mid-western hill	10.7	21.3	32.0	4.2	37.4	41.6	15.3	58.7	74.0	56.7	51.0	510	
Far-western hill	7.5	24.1	31.6	3.6	37.6	41.2	11.5	61.7	73.2	56.9	49.3	305	
Eastern terai	12.0	17.3	29.4	7.5	40.9	48.4	19.7	58.2	77.9	62.3	49.3	1,421	
Central terai Western terai	10.0 10.9	12.6 20.3	22.6 31.2	2.6 4.8	47.4 45.5	50.0 50.3	12.7 15.8	60.1 66.1	72.8 81.9	69.0 61.9	64.6 53.0	1,918 867	
Mid-western terai	7.5	13.5	21.0	7.5	46.7	54.2	15.8	60.5	76.3	72.4	64.7	499	
Far-western terai	5.9	12.6	18.5	8.2	51.9	60.1	14.2	64.7	78.9	76.6	69.9	488	
Education													
No education	5.0	17.5	22.5	1.6	51.1	52.8	6.8	68.8	75.6	70.3	64.6	4,580	
Primary	10.3	19.9	30.2	5.2	41.8	47.0	15.8	61.9	77.7	61.1	52.1	1,844	
Some secondary	15.6	17.1	32.6	8.4	37.7	46.1	24.2	54.9	79.1	58.8	48.0	1,833	
SLC and above	16.3	14.0	30.3	14.5	33.2	47.7	31.8	47.3	79.1	61.7	43.8	1,350	
Wealth quintile													
Lowest	9.1	22.1	31.1	3.5	36.9	40.4	12.7	59.7	72.4	57.0	49.3	1,664	
Second	9.2	18.8	28.1	4.3	42.0	46.3	13.9	61.0	74.8	62.5	54.9	1,846	
Middle	12.7	15.5	28.2	3.9	44.3	48.2	16.9	59.9	76.7	63.3	56.4	2,022	
Fourth	9.1	17.3	26.4	6.3	45.7	52.0	15.7	63.1	78.8	66.5	57.5	2,052	
Highest	7.9	14.1	22.0	8.7	50.8	59.6	17.0	65.0	82.0	73.2	59.6	2,023	
Total	9.6	17.4	27.0	5.4	44.3	49.7	15.3	61.8	77.2	65.0	55.9	9,608	

<sup>1</sup> Unmet need for spacing: Includes women who are fecund and not using family planning and who say they want to wait two or more years for their next birth, who say they are unsure whether they want another child, or who want another child but are unsure when to have the child. In addition, unmet need for spacing includes pregnant women whose current pregnancy was mistimed, or whose last pregnancy was unwanted but who now say they want more children. Unmet need for spacing also includes amenorrheic women whose last birth was unwanted but who now say they want more children.

Unmet need for limiting: Includes women who are fecund and not using family planning and who say they do not want another child. In addition, unmet need for limiting includes pregnant women whose current pregnancy was unwanted but who now say they do not want more children or who are undecided whether they want another child. Unmet need for limiting also includes amenorrheic women whose last birth was unwanted but who now say they do not want more children or who are undecided whether they want another child. want another child.

2 Using for limiting is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here. <sup>3</sup> Nonusers who are pregnant or amenorrheic and whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in total demand for contraception (since they would have been using had their method not failed).

Table 7.12 Need and demand for family planning among currently married women

SLC = School Leaving Certificate

Unmet need for family planning declines with age from 42 percent among women age 15-19 to 13 percent in the oldest age group. Unmet need is higher in rural than in urban areas. Unmet need is highest in the hill zone (30 percent), the Western region (34 percent), and the Western hill subregion (36 percent). Unmet need is lowest among women with no education (23 percent) and highest among women with some secondary education (33 percent). Unmet need declines with increasing wealth, from 31 percent in the lowest wealth quintile to 22 percent in the highest quintile.

Demand for family planning is highest among women age 35-39 (88 percent) and lowest among those age 15-19 (59 percent). There are small variations in demand for family planning by urban-rural residence, ecological zone, development region, and subregion. Demand increases with increasing education, from 76 percent among women with no education to 79 percent among those with at least some secondary education. A similar pattern is observed by wealth quintile. The percentage of women whose demand for modern methods is satisfied is highest among those age 45-49; those living in urban areas, the Central region, and the Far-western terai; those with no education; and those in the highest wealth quintile.

### 7.13 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which nonusers plan to use contraceptive methods in the future. In the 2011 NDHS, women age 15-49 who were not using any contraceptive method at the time of the survey were asked about their intention to use family planning in the future. Table 7.13 shows that, among currently married women not using contraception, 81 percent intend to use a family planning method in the future, 3 percent are unsure of their intentions, and 17 percent have no intention of using any method in the future.

The proportion of women intending to use family planning peaks at 91 percent among nonusers with one child, declines to 75 percent among those with three children, and further declines sharply to 57 percent among those who have four or more children.

Table 7.13 Future use of	contracept	ion				
Percent distribution of cu method by intention to us						
		Numb	er of living c	hildren <sup>1</sup>		
Intention	0	1	2	3	4+	Total
Intends to use	89.1	90.7	85.8	74.8	57.2	80.6
Unsure	2.5	2.1	2.1	2.3	4.5	2.6
Does not intend to use	8.5	7.2	12.2	22.9	38.3	16.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	670	1,305	1,253	682	923	4,833

## 7.14 EXPOSURE TO FAMILY PLANNING MESSAGES

The media play an important role in communicating messages about family planning. Data on level of exposure to such media as radio, television, and printed materials are important for program managers and planners to effectively target population subgroups for information, education, and communication campaigns. In Nepal, the most common media sources are the radio and posters. Television is mostly found in urban areas, while print media are accessed mostly by the educated. To assess the extent to which the media serve as a source of family planning messages, respondents were asked whether they had heard or seen a message about family planning on the radio or television, in the print media (newspaper, magazine, poster, or billboard), or at a street drama in the months preceding the survey. The results are shown in Table 7.14.

Posters and billboards are the most popular source for family planning messages in Nepal, with 55 percent of women and 70 percent of men having seen a family planning message on a poster or billboard. Fifty-two percent of women and 59 percent of men age 15-49 heard a family planning message on the radio, and 40 percent of women and 45 percent of men saw a message on television. Fourteen percent of women and 34

percent of men read about family planning in a newspaper or magazine, while 6 percent of women and 14 percent of men were exposed to family planning messages at a street drama. Overall, 26 percent of women and 15 percent of men were not exposed to family planning messages in any of the specified media sources.

In general, exposure to media messages on family planning decreases with age, with older women and men (age 45-49) least likely to have been exposed to family planning messages in any media.

#### Table 7.14 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on the radio or on television or in a newspaper/magazine, poster/billboard, and street drama in the past few months, according to background characteristics, Nepal 2011

				Women							Men			
Background characteristic	Radio	Tele- vision	News- paper/ magazine	Poster/ billboard	Street drama	None of these five media sources	Number of women	Radio	Tele- vision	News- paper/ magazine	Poster/ billboard	Street drama	None of these five media sources	Numbe of mer
A			· · ·							· ·				
<b>Age</b> 15-19	57.1	40.7	18.6	60.4	8.4	21.3	2.753	60.3	46.0	34.5	73.5	17.3	11.5	978
20-24	53.4	40.7	19.5	61.1	6.8	21.3	2,755	65.1	40.0 50.5	44.3	78.1	18.0	9.3	685
25-29	53.4 52.0	43.4	19.5	57.6	5.8	22.9	2,297	54.5	40.7	44.3 31.1	78.1	12.7	9.3 14.3	581
25-29 30-34	52.0 48.9	41.7	13.4	57.6	5.8 4.6	24.5 26.0	1,734	54.5 55.9	40.7	31.1	71.0	9.0	14.3	499
30-34 35-39											69.8			499 542
40-44	51.3 49.3	36.9 34.0	11.1 6.3	53.0 43.9	5.1 4.0	28.6 30.7	1,557	58.8 57.1	48.3 41.5	34.5 28.7	63.0	11.0 11.7	14.7 18.8	54Z 438
40-44 45-49	49.3 45.2	34.0 31.1	6.3 4.8	43.9 37.5	4.0 3.5	30.7	1,285 947	57.1 54.6	41.5 36.7	28.7	63.0 57.0	8.8	22.0	438
Residence														
Urban	51.8	63.5	31.5	72.9	7.6	14.2	1,819	54.6	62.9	52.5	80.0	15.4	8.4	717
					7.6 5.7			• · · •						
Rural	52.1	35.9	11.5	52.2	5.7	27.7	10,855	59.5	41.2	29.7	68.4	13.1	15.8	3,404
Ecological zone		o= =							<u></u>	10.0				
Mountain	60.9	25.7	7.8	51.3	5.5	24.1	805	72.9	25.1	18.0	60.5	11.5	13.9	245
Hill	59.1	38.7	15.8	58.1	5.1	21.2	5,090	62.1	42.0	33.6	69.4	9.9	12.5	1,658
Terai	45.7	42.4	14.0	53.4	6.6	29.4	6,779	54.5	49.4	35.4	72.3	16.4	16.1	2,218
Development region														
Eastern	54.9	45.1	17.8	59.7	5.9	21.4	3,057	58.0	46.8	33.9	66.3	17.4	15.9	996
Central	45.7	38.4	15.7	51.2	3.9	31.0	4,236	59.4	50.0	38.4	69.9	13.9	14.7	1,448
Western	55.5	47.9	13.5	58.3	5.5	23.2	2,660	53.8	49.4	33.6	73.9	10.6	15.0	798
Mid-western	58.0	28.6	9.3	56.0	9.7	23.1	1,478	63.2	31.6	26.5	67.2	11.3	14.3	493
Far-western	52.8	28.2	8.8	50.0	10.0	27.5	1,242	61.9	29.4	24.6	80.1	11.0	9.3	385
Subregion														
Eastern mountain	70.5	26.2	12.7	58.8	3.5	17.4	229	69.0	24.0	23.0	56.1	13.9	15.8	66
Central mountain	63.2	34.2	10.0	52.1	5.6	19.8	258	75.0	39.1	21.6	72.0	13.8	10.8	69
Western mountain	52.2	18.3	2.6	45.3	7.0	32.4	319	73.9	17.0	12.8	56.0	8.7	14.7	110
Eastern hill	61.8	28.6	9.6	50.4	2.0	23.3	956	65.9	32.9	23.0	62.3	9.9	16.2	293
Central hill	59.6	57.6	29.2	73.4	6.9	9.9	1,563	56.5	52.5	46.0	68.8	9.4	10.4	616
Western hill	58.1	38.7	11.4	50.6	2.8	27.4	1,513	61.5	46.4	32.5	72.0	9.8	14.0	440
Mid-western hill	61.4	23.8	10.0	56.7	8.5	23.4	649	73.8	28.2	25.7	68.7	11.2	12.4	189
Far-western hill	51.3	13.3	4.8	48.2	9.2	32.5	409	65.5	16.2	12.5	82.1	11.3	8.6	120
Eastern terai	49.4	55.7	22.7	64.7	8.1	20.9	1,873	53.3	55.5	40.0	69.1	21.3	15.8	638
Central terai	34.8	26.5	7.7	36.7	1.7	45.8	2,415	60.3	48.9	33.7	70.7	17.5	18.4	763
Western terai	52.0	60.0	16.2	68.4	9.1	17.6	1,147	44.4	53.0	34.9	76.3	11.6	16.1	358
Mid-western terai	56.4	35.0	10.5	58.5	11.0	21.0	668	52.3	37.8	31.1	70.4	13.1	14.3	242
Far-western terai	53.4	40.1	12.5	51.5	11.5	22.9	676	57.0	39.6	33.6	82.7	10.3	10.2	217
ducation														
No education	39.4	20.0	0.6	34.1	2.7	43.1	5,045	44.3	14.8	0.7	41.1	4.0	38.0	567
Primary	51.8	37.7	5.0	52.0	5.3	25.2	2,209	56.9	29.7	13.1	58.9	7.1	20.2	814
Some secondary	61.7	50.3	19.4	69.1	8.7	13.8	3,088	59.6	46.7	31.3	74.4	14.2	10.3	1,437
SLC and above	67.0	71.1	46.2	85.3	10.1	4.5	2,331	65.1	65.8	63.5	86.0	20.9	5.4	1,303
Vealth quintile														
Lowest	45.5	8.1	2.5	35.1	4.0	42.8	2,120	60.2	8.4	7.8	50.0	4.2	25.2	610
Second	49.6	17.2	4.4	44.2	4.6	34.4	2,393	61.2	25.6	17.7	62.7	8.2	18.5	695
Middle	51.8	32.3	8.0	47.4	4.8	30.3	2,600	60.3	39.6	27.8	69.8	18.3	18.4	830
Fourth	56.1	55.9	15.4	65.7	7.3	17.4	2,722	59.6	59.6	41.1	74.6	13.6	10.5	920
Highest	55.5	74.2	36.4	76.5	8.3	9.7	2,839	54.1	70.1	56.9	84.1	18.5	6.1	1,066
otal 15-49	52.1	39.9	14.3	55.2	6.0	25.8	12,674	58.7	45.0	33.7	70.4	13.5	14.5	4,121

Not surprisingly, women and men residing in urban areas are much more likely to have been exposed to family planning messages in any media than their rural counterparts. This is especially true for messages on television and in the print media. Women living in the hill zone are more likely than women in the mountain zone and terai to have read or seen family planning messages in a newspaper or magazine or on a poster or billboard. Women living in the Eastern region and men living in the Far-western region are more likely to be exposed to family planning messages in any media than women and men in the other regions. Similarly, women living in the Central hill subregion and men living in the Far-western hill subregion have more exposure to family planning messages in the media than those in other areas.

Education has a positive influence on media exposure. For example, 43 percent of uneducated women have no exposure to family planning information in any media, as compared with 5 percent of women with a School Leaving Certificate (SLC) and higher. A similar pattern is observed for men. Among both women and men, exposure to family planning messages increases with wealth.

### 7.15 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

When family planning providers visit women in the field or when women visit health facilities, family planning fieldworkers and health providers are expected to discuss reproductive needs, contraceptive options available, and to counsel them to adopt a method of family planning. In Nepal, two types of field volunteers provide family planning services and information: female community health volunteers and reproductive health volunteers (RHVs) functioning under the Family Planning Association of Nepal. To get insight into the level of contact between nonusers and health workers, women who were not using contraception were asked whether an FCHV or RHV had visited them during the 12 months preceding the survey and discussed family planning. In addition, women were asked whether they had visited a health facility in the 12 months preceding the survey for any reason and whether anyone at the facility had discussed family planning with them during the visit.

Table 7.15 shows that FCHVs or RHVs discussed family planning with only 9 percent of nonusers during the 12 months preceding the survey. At the same time, only 6 percent of nonusers visited a health facility and discussed family planning at the facility. This low level of contact of nonusers with family planning providers varies little by background characteristics. Overall, 88 percent of women who could have been exposed to family planning information did not discuss family planning during a field visit or at a health facility, indicating numerous missed opportunities to inform and educate women about family planning.

### Table 7.15 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the last 12 months were visited by an FCHV/RHV who discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who did not discuss family planning either with an FCHV/RHV or at a health facility, by background characteristics, Nepal 2011

	Percentage of women who were visited by FCHV/RHV who	health facility in th		Percentage of women who did not discuss family planning either with		
Background characteristic		Discussed family planning	Did not discuss family planning	FCHV/RHV or at a health facility	Number of women	
Age						
15-19	3.4	2.1	38.1	95.2	2,612	
20-24	10.7	7.7	57.8	85.1	1,773	
25-29	14.2	10.2	59.9	81.3	1,212	
30-34	13.0	9.7	56.8	80.8	741	
35-39	13.6	8.9	51.8	82.4	555	
40-44	12.0	5.5	42.0	85.3	464	
45-49	5.1	2.0	43.9	94.6	480	
Residence						
Urban	4.9	5.1	52.1	91.6	1,055	
Rural	9.6	6.2	48.8	87.3	6,781	
Ecological zone						
Mountain	10.6	6.6	47.6	86.3	499	
Hill .	9.4	6.3	49.6	87.3	3,243	
Terai	8.5	5.8	49.1	88.5	4,095	
Development region						
Eastern	6.8	7.0	46.5	89.0	1,984	
Central	7.0	5.3	47.1	90.2	2,454	
Western	8.9	5.5	57.9	88.1	1,709	
Mid-western	15.4	6.7	47.7	81.9	933	
Far-western	13.3	5.9	45.4	84.2	757	
Subregion						
Eastern mountain	8.8	8.6	47.2	86.8	153	
Central mountain	8.3	2.2	43.2	91.1	144	
Western mountain	13.6	8.3	51.0	82.6	201	
Eastern hill	5.8	6.6	42.0	89.6	655	
Central hill	5.2	5.4	50.9	91.6	872	
Western hill	10.9	6.0	57.3	86.5	1,002	
Mid-western hill	17.5	8.2	44.4	79.0	433	
Far-western hill	12.6	6.2	44.4	84.0	282	
Eastern terai	7.1	7.1	48.9	89.0	1,176	
Central terai	8.0	5.6	45.2	89.2	1,437	
Western terai	6.1 12.6	5.0 4.4	58.8	90.3	708	
Mid-western terai Far-western terai	12.6	4.4 5.4	51.2 43.8	85.8 83.8	394 379	
Education						
No education	10.9	7.5	46.0	85.4	2.585	
Primary	11.5	7.6	50.2	84.7	1,329	
Some secondary	6.4	4.4	49.4	91.0	2,238	
SLC and above	7.5	4.8	53.2	89.9	1,685	
Wealth quintile						
Lowest	10.6	6.3	37.1	86.7	1,438	
Second	11.1	6.8	49.3	85.6	1,526	
Middle	9.9	7.0	49.0	86.5	1,615	
Fourth	7.8	5.0	54.5	89.0	1,636	
Highest	5.7	5.2	54.9	91.2	1,622	
0						
Total	9.0	6.0	49.2	87.9	7,837	

FCHV = female community health volunteer

RHV = reproductive health volunteer

SLC = School Leaving Certificate

## 7.16 COUNSELING DURING POSTPARTUM AND POST-ABORTION

The government of Nepal, under the Family Health Division of the Ministry of Health and Population, has emphasized on strengthening the family planning counseling and services to Comprehensive Abortion Care (CAC) and postpartum care. The 2011 NDHS included questions on information and counseling on family planning methods for women during the post-abortion and postpartum periods to assess these programs.

The results are shown in Table 7.16. Forty-four percent of women who had an abortion in the five years preceding the survey were given information or counseled on family planning during their post-abortion visit. Only 9 percent of women who had a live birth in the five years preceding the survey were given information or counseled on family planning during their postpartum checkup. The results indicate many missed opportunities to provide information and counseling on family planning methods and services.

### Table 7.16 Information on family planning methods and counseling

Information on family planning abortion period         Information on family planning during postpartum with abortion         Information on family planning period         Number of wome family planning during postpartum period         Number of wome with a live birth i the last five year           Age 15-19         *         13         6.9         333           25-24         52.8         63         7.7         1,329           25-29         36.7         154         9.9         1,310           30-34         43.5         128         9.3         670           35-39         56.2         70         7.4         317           40-44         (49.3)         25         7.7         140           45-49         *         13         (0.7)         50           Residence         Urban         47.7         90         14.0         418           Rural         43.1         376         7.8         3,730           Ecological zone         Mountain         51.4         23         5.8         306           Hill         43.5         197         7.9         1,669           Central         46.1         111         8.0         1,293           Western         36.9         137	on family planning met a live birth in the five y the postpartum visit, ac	ears preceding the	survey who were give	ortion visit and percent ven information on fa	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Background	Information on family planning during post-	Number of women	Information on family planning during postpartum	Number of women with a live birth in the last five years
Urban         47.7         90         14.0         418           Rural         43.1         376         7.8         3,730           Ecological zone	15-19 20-24 25-29 30-34 35-39 40-44	52.8 38.7 43.5 56.2	63 154 128 70 25	7.7 9.9 9.3 7.4 7.7	1,329 1,310 670 317 140
Mountain         51.4         23         5.8         306           Hill         43.5         197         7.9         1,669           Terai         43.7         246         9.2         2,174           Development region         Eastern         47.6         90         8.4         999           Central         46.1         111         8.0         1,293           Western         36.9         137         7.6         818           Mid-western         46.3         65         8.9         440           Subregion         Eastern mountain         *         3         5.4         78           Central mountain         *         6         6.9         72         Western mountain         *         18         3.8         331           Central hill         55.2         66         11.6         403         Western hill         31.9         67         5.7         488           Mid-western hill         31.9         67         5.7         488         301           Western hill         (40.2)         26         11.3         275         57           Far-western hill         (38.6)         20         8.2         171     <	Urban				
Eastern         47.6         90         8.4         999           Central         46.1         111         8.0         1,293           Western         36.9         137         7.6         818           Mid-western         48.2         63         10.3         598           Far-western         46.3         65         8.9         440           Subregion         *         6         6.9         72           Western mountain         *         6         6.9         72           Western mountain         *         18         3.8         331           Central mountain         *         18         3.8         331           Central hill         55.2         66         11.6         403           Western hill         31.9         67         5.7         488           Mid-western hill         (40.2)         26         11.3         275           Far-western hill         (38.6)         20         8.2         171           Eastern terai         (45.7)         68         11.3         589           Central terai         *         39         6.4         818           Western terai	Mountain Hill	43.5	197	7.9	1,669
Eastern mountain         *         3         5.4         78           Central mountain         *         6         6.9         72           Western mountain         (44.4)         14         5.6         155           Eastern hill         *         18         3.8         331           Central hill         55.2         66         11.6         403           Western hill         31.9         67         5.7         488           Mid-western hill         (40.2)         26         11.3         275           Far-western hill         (38.6)         20         8.2         171           Eastern terai         (45.7)         68         11.3         589           Central terai         *         39         6.4         818           Western terai         41.8         70         10.4         330           Mid-western terai         50.9         39         10.9         200           Education         \$2.1         113         5.2         1,822           Primary         41.4         119         9.4         835           Some secondary         43.8         146         10.9         866      SLC and above <td>Eastern Central Western Mid-western</td> <td>46.1 36.9 48.2</td> <td>111 137 63</td> <td>8.0 7.6 10.3</td> <td>1,293 818 598</td>	Eastern Central Western Mid-western	46.1 36.9 48.2	111 137 63	8.0 7.6 10.3	1,293 818 598
No education         52.1         113         5.2         1,822           Primary         41.4         119         9.4         835           Some secondary         43.8         146         10.9         866           SLC and above         37.5         88         13.2         627           Wealth quintile         Understand         979         Second         42.8         56         5.9         899           Middle         39.8         77         7.1         873         Fourth         35.8         109         12.3         748	Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	* (44.4) * 55.2 31.9 (40.2) (38.6) (45.7) * 41.8 55.5	3 6 14 18 66 67 26 20 68 39 70 30	5.4 6.9 5.6 3.8 11.6 5.7 11.3 8.2 11.3 6.4 10.4 10.4 10.7	78 72 155 331 403 488 275 171 589 818 330 238
Lowest49.4493.7979Second42.8565.9899Middle39.8777.1873Fourth35.810912.3748	No education Primary Some secondary	41.4 43.8	119 146	9.4 10.9	835 866
Total 15-49 44.0 466 8.5 4.148	Lowest Second Middle Fourth Highest	42.8 39.8 35.8 49.8	56 77 109 175	5.9 7.1 12.3 16.5	899 873 748 649

Percentage of women with an abortion in the five years preceding the survey who were given information

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

### 7.17 Men's Attitudes towards Contraception

The 2011 NDHS also included questions in the male survey to elicit further information on men's attitudes toward contraception. This information is useful in formulating family planning programs and policies geared toward men since they play a key role in women's reproductive health. Men's attitudes toward family planning and specific methods are also important in shaping educational activities geared toward addressing some of their misconceptions and fears.

To get a sense of their attitude toward contraception in general, men were asked their opinion on a number of stereotypical statements pertaining to contraception and its use. The results are shown in Table 7.17. Thirteen percent of Nepalese men agree that contraception is a woman's business, and 20 percent agree that women who use contraception may become promiscuous. Men living in rural areas, the terai, and the Western region, particularly the Western hill subregion, are more likely to have these perceptions than other men. Men with SLC and higher level of education and those in the highest wealth quintile are less likely to have these misconceptions regarding contraceptive use than other men.

### Table 7.17 Men's attitudes towards contraceptive use

Among men who know a family planning method, the percentage who agree with stereotypical statements about contraceptive use, according to background characteristics, Nepal 2011

Age15-1910.921.0973 $20-24$ 11.818.1684 $25-29$ 16.418.9581 $30-34$ 14.119.9499 $35-39$ 11.521.0541 $40-44$ 10.121.1434 $45-49$ 13.621.6398ResidenceUrban10.113.6717Rural13.021.53,333Ecological zoneMountain5.611.5245Hill9.821.61.650Terai15.220.02,216Development regionEastern8.017.4994Central15.119.91.447Western9.012.0490Far-western11.412.7385SubregionEastern mountain7.617.266Central mountain8.310.269Western mountain8.814.4615Western hill3.012.2188Far-western hill13.319.8120Eastern hill3.012.2188Far-western hill13.319.8120Eastern terai15.224.6358Mid-western terai15.224.6358Mid-western terai15.224.6358Contral terai20.817.6638Central terai20.817.6638 <th>Background characteristic</th> <th>Contraception is women's business</th> <th>Women who use contraception may become promiscuous</th> <th>Number of men who know a family planning method</th>	Background characteristic	Contraception is women's business	Women who use contraception may become promiscuous	Number of men who know a family planning method
25-29         16.4         18.9         581           30-34         14.1         19.9         499           35-39         11.5         21.0         541           40-44         10.1         21.1         434           45-49         13.6         21.6         398           Residence         Urban         10.1         13.6         717           Rural         13.0         21.5         3,393           Ecological zone           16.4         16.50           Terai         15.2         20.0         2,216            Development region           94             Eastern         8.0         17.4         994             Gentral         15.1         19.9         1,447              Western         9.0         12.0         490                  Mid-western         9.0         12.0         490 <td>15-19</td> <td></td> <td></td> <td></td>	15-19			
30-34         14.1         19.9         499           35-39         11.5         21.0         541           40-44         10.1         21.1         434           45-49         13.6         21.6         398           Residence           Urban         10.1         13.6         717           Rural         13.0         21.5         3,393           Ecological zone           Mountain         5.6         11.5         245           Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region           Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central mountain         2.8 <t< td=""><td></td><td></td><td></td><td></td></t<>				
35-39         11.5         21.0         541           40-44         10.1         21.1         434           45-49         13.6         21.6         398           Residence               Urban         10.1         13.6         717           Rural         13.0         21.5         3,393           Ecological zone              Mountain         5.6         11.5         245           Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region              Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion               Eastern mountain         7.6         17.2         66           Central hill         18.8         14.4         615           Western mountain         8.8 <td></td> <td></td> <td></td> <td></td>				
45-49       13.6       21.6       398         Residence         Urban       10.1       13.6       717         Rural       13.0       21.5       3,393         Ecological zone         Mountain       5.6       11.5       245         Hill       9.8       21.6       1,650         Terai       15.2       20.0       2,216         Development region         Eastern       8.0       17.4       994         Central       15.1       19.9       1,447         Western       9.0       12.0       490         Far-western       11.4       12.7       385         Subregion       Eastern mountain       7.6       17.2       66         Central mountain       2.8       8.8       110         Eastern hill       4.6       17.0       291         Central mountain       2.8       8.8       110         Eastern hill       3.0       12.2       48         Western hill       3.3       19.8       120         Eastern hill       3.0       12.2       188         Far-western hill       3.3       13.5<				
Residence         urban         10.1         13.6         717           Rural         13.0         21.5         3,393           Ecological zone         mountain         5.6         11.5         245           Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region         mountain         15.1         19.9         1,447           Western         8.0         17.4         994         20.0         2,216           Development region         mountain         16.0         32.8         795         Mid-western         9.0         1,447           Western         9.0         12.0         490         447         Western         365         5           Subregion         Eastern mountain         7.6         17.2         66         6         6           Central mountain         8.8         110         Eastern hill         4.6         17.0         291           Central hill         8.6         17.6         17.2         66         6         6           Western hill         3.0         12.2         188         Far-western hill         10.2         188	40-44	10.1	21.1	
Urban         10.1         13.6         717           Rural         13.0         21.5         3,393           Ecological zone	45-49	13.6	21.6	398
Rural         13.0         21.5         3,393           Ecological zone         Mountain         5.6         11.5         245           Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region         Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         8.8         110         Eastern hill         4.6           Cantral hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western terai         9.6         17.6         638	Residence			
Ecological zone         Mountain         5.6         11.5         245           Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region         Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         3.0         12.2         188           Far-western hill         3.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai				717
Mountain         5.6         11.5         245           Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region         Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         3.0         12.2         188           Far-western hill         3.6         17.6         638           Central terai         9.6         17.6         638           Vestern hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         2.2         <	Rural	13.0	21.5	3,393
Hill         9.8         21.6         1,650           Terai         15.2         20.0         2,216           Development region         20.0         2,216           Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69         9           Western mountain         2.8         8.8         110         201           Central mountain         2.8         8.8         110         201           Central hill         4.6         17.0         291         201           Central hill         3.0         12.2         188         202         235         436           Mid-western hill         13.3         19.8         120         201         201         201         201         201         201         201         201         201         201         201         201         201         201         201	Ecological zone			
Terai         15.2         20.0         2,216           Development region         Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         16.0         32.8         795           Mid-western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         13.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.3         13.5         240           Far-western terai				
Development region         8.0         17.4         994           Central         15.1         19.9         1,447           Western         16.0         32.8         795           Mid-western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western terai         9.6         17.6         638           Central terai         9.6         17.6         638           Central terai         2.2         2.4.6         358           Mid-western terai         15.2         24.6         358           Mid-western terai         12.2				
Eastern         8.0         17.4         994           Central         15.1         19.9         1,447           Western         16.0         32.8         795           Mid-western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.3         13.5         240           Far-western terai         15.3         13.5         240           Far-western terai         15.3         13.5         240           Far-western terai         15.2	lerai	15.2	20.0	2,216
Central         15.1         19.9         1,447           Western         16.0         32.8         795           Mid-western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         3.0         12.2         188           Far-western hill         3.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7				
Western         16.0         32.8         795           Mid-western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24				
Mid-western         9.0         12.0         490           Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         3.0         12.2         188           Far-western terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.3         13.5         240           Far-western terai         15.2         24.6         358           Mid-western terai         15.3         13.5         240           Far-western terai				
Far-western         11.4         12.7         385           Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437      SLC and above         5.0         1				
Subregion         Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western terai         9.6         17.6         638           Central terai         9.6         17.6         638           Central terai         15.2         24.6         358           Mid-western terai         15.2         24.6         358           Mid-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         14.				
Eastern mountain         7.6         17.2         66           Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         3.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         13.7         26.0         604           Lowest         13.7         26.0				
Central mountain         8.3         10.2         69           Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Far-western hill         3.0         12.2         188           Central terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         14.8         22.5         692           Middle         14.8         22.5 <td< td=""><td></td><td>76</td><td>17.2</td><td>66</td></td<>		76	17.2	66
Western mountain         2.8         8.8         110           Eastern hill         4.6         17.0         291           Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         15.3         13.5         240           Far-western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         13.7         26.0         604           Second         15.1         25.5				
Central hill         8.8         14.4         615           Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066	Western mountain	2.8		110
Western hill         16.7         39.5         436           Mid-western hill         3.0         12.2         188           Far-western hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         15.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
Mid-western hill         3.0         12.2         188           Far-western hill         13.3         19.8         120           Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Lowest         13.7         26.0         604           Second         15.1         25.5         692         Middle           Middle         14.8         22.5         829         13.1         1,066				
Far-western hill       13.3       19.8       120         Eastern terai       9.6       17.6       638         Central terai       20.8       25.1       763         Western terai       15.2       24.6       358         Mid-western terai       15.3       13.5       240         Far-western terai       12.2       8.7       217         Education       17.7       27.9       560         Primary       20.2       24.7       810         Some secondary       12.9       20.8       1,437         SLC and above       5.0       13.3       1,303         Wealth quintile       1       25.5       692         Middle       14.8       22.5       829         Fourth       12.5       18.3       919         Highest       8.3       13.1       1,066				
Eastern terai         9.6         17.6         638           Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
Central terai         20.8         25.1         763           Western terai         15.2         24.6         358           Mid-western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Weath quintile         U         U         U           Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
Mid-western terai         15.3         13.5         240           Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066			25.1	763
Far-western terai         12.2         8.7         217           Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
Education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         U         U         U           Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
No education         17.7         27.9         560           Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Understand         E         E           Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066		12.2	8.7	217
Primary         20.2         24.7         810           Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile         Understand         East         13.7         26.0         604           Lowest         13.7         26.0         604         500				
Some secondary         12.9         20.8         1,437           SLC and above         5.0         13.3         1,303           Wealth quintile              Lowest         13.7         26.0         604           Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
SLC and above         5.0         13.3         1,303           Wealth quintile				
Wealth quintile         13.7         26.0         604           Lowest         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
Lowest13.726.0604Second15.125.5692Middle14.822.5829Fourth12.518.3919Highest8.313.11,066		5.0		.,= 50
Second         15.1         25.5         692           Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066		13.7	26.0	604
Middle         14.8         22.5         829           Fourth         12.5         18.3         919           Highest         8.3         13.1         1,066				
Highest 8.3 13.1 1,066				
Total 15-49 12.5 20.1 4,110	Highest	8.3	13.1	1,066
	Total 15-49	12.5	20.1	4,110

# **INFANT AND CHILD MORTALITY**

### Key Findings:

- Infant and under-five mortality rates in the past five years are 46 and 54 deaths per 1,000 live births, respectively. At these mortality levels, one in every 22 Nepalese children dies before reaching age 1, and one in every 19 does not survive to his or her fifth birthday.
- Infant mortality has declined by 42 percent over the last 15 years, while under-five mortality has declined by 54 percent over the same period.
- Childhood mortality is relatively higher in the mountain ecological zone than in the terai and hill zone and is highest in the Far-western region.
- The neonatal mortality rate in the past five years is 33 deaths per 1,000 live births, which is two and a half times the postneonatal rate. The perinatal mortality rate is 37 per 1,000 pregnancies.

This chapter describes levels, trends, and differentials in early childhood mortality and high-risk fertility behavior of women in Nepal. Infant and child mortality rates are important indicators of a country's socioeconomic development and quality of life, as well as health status. Measures of childhood mortality also contribute to a better understanding of the progress of population and health programs and policies. Analyses of mortality measures are useful in identifying promising directions for health and nutrition programs and improving child survival efforts in Nepal. Disaggregation of mortality measures by socioeconomic and demographic characteristics helps to identify differentials in population subgroups and target high-risk groups for effective programs. Measures of childhood mortality are also useful for population projections.

Childhood mortality in general and infant mortality in particular are often used as broad indicators of social development or as specific indicators of health status. Childhood mortality rates are used for monitoring a country's progress toward Millennium Development Goal 4, which aims for a two-thirds reduction in child mortality by the year 2015 (UNDP, 2011a). Results from the 2011 NDHS can be used in monitoring the impact of major national neonatal and child health interventions, strategies, and policies such as the National Newborn Health Strategy-2004 (Ministry of Health and Population, 2004a) and the Nepal Health Sector Program 2005-2009 on achievement of this goal.

Neonatal, postneonatal, infant, child, and under-5 year mortality rates are calculated from birth and death data derived from vital registration or from household surveys. The reliability of mortality estimates depends on the accuracy and completeness of reporting and recording of births and deaths. Underreporting and misclassification are common, especially for deaths occurring early on in life.

The 2011 NDHS provides various measures of mortality. The mortality rates presented in this chapter are computed from information gathered in the pregnancy history section of the Woman's Questionnaire. Women age 15-49 were asked whether they had ever given birth, and if they had, they were asked to report the number of sons and daughters living with them, the number living elsewhere, and the number who had died. Women were also asked for the number of pregnancies they had that did not end in a live birth. A detailed history of all pregnancies was gathered in chronological order starting with the first pregnancy. Women were asked whether a pregnancy was single or multiple, the sex of the child, the date of birth (month and year), survival status, the age of the child on the date of the interview if alive, and, if not alive, the age at death of each child born alive or the duration in months of a pregnancy that ended before full term. Since the primary causes of childhood mortality change as children age—from biological factors to environmental factors—childhood mortality rates are expressed by age categories and are customarily defined as follows:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality  $(_1q_0)$ : the probability of dying between birth and the first birthday
- Child mortality  $(_4q_1)$ : the probability of dying between exact ages one and five
- Under-five mortality  $({}_{5}q_{0})$ : the probability of dying between birth and the fifth birthday

Rates of childhood mortality are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one.

Information on stillbirths and deaths that occurred within seven days of birth is used to estimate perinatal mortality, which is the number of stillbirths and early neonatal deaths per 1,000 stillbirths and live births.

### 8.1 ASSESSMENT OF DATA QUALITY

The accuracy of mortality estimates depends on the sampling variability of the estimates and on nonsampling errors. Sampling variability and sampling errors are discussed in detail in Appendix B. Nonsampling errors depend on the extent to which the date of birth and age at death are accurately reported and recorded and the completeness with which child deaths are reported. Omission of births and deaths affects mortality estimates, displacement of birth and death dates impacts mortality trends, and misreporting of age at death may distort the age pattern of mortality. Typically, the most serious source of nonsampling errors in a survey that collects retrospective information on births and deaths is the underreporting of births and deaths of children who were dead at the time of the survey. It may be that mothers are reluctant to talk about their dead children because of the sorrow associated with their death, or they may live in a culture that discourages discussion of the dead. The possible occurrence of these data problems in the 2011 NDHS is discussed with reference to the data quality tables in Appendix C. Underreporting of births and deaths is generally more severe the further back in time an event occurred.

An unusual pattern in the distribution of births by calendar years is an indication of omission of children or age displacement. In the 2011 NDHS, the cutoff date for asking health questions was Baisakh 2062 in the Nepalese calendar (corresponding to April 2005 in the Gregorian calendar). Table C.4 shows that the overall percentage of births for which a month and year of birth was reported is almost 100 percent for both children who have died and children who are alive.

Table C.4 shows some age displacement across this boundary for both living and dead children. The distribution of living children and the total number of children does not show a deficit in 2062 (2005-2006) in relation to 2063 (2006-2007) but does show an excess in 2061 (2004-2005), as denoted by the calendar year ratios. The deficit in 2062 (2005-2006) can be attributed to the transference of births by interviewers out of the period for which health data were collected. Transference is proportionately higher for dead children than living children, and this displacement may affect mortality rates. The transference of children, especially deceased children, out of the five-year period preceding the survey is likely to underestimate the true level of childhood mortality for that period.

Underreporting of deaths is usually assumed to be higher for deaths that occur very early in infancy. Omission of deaths or misclassification of deaths as stillbirths may also be more common among women who have had several children or in cases where a death took place in the distant past. In order to assess the impact of omission on measures of child mortality, two indicators are used: the percentage of deaths that occurred under seven days to the number that occurred under one month and the percentage of neonatal deaths to infant deaths. It is hypothesized that omission will be more prevalent among those who died immediately after birth than those who lived longer and that it will be more serious for events that took place in the distant past than for those that occurred in the more recent past. Table C.5 shows data on age at death for early infant deaths. Selective underreporting of early neonatal deaths would result in an abnormally low ratio of deaths within the first seven days of life to all neonatal deaths. Early infant deaths were not severely underreported in the 2011 NDHS

survey, as suggested by the high ratio of deaths in the first seven days of life to all neonatal deaths (84 percent in the five years preceding the survey).

Heaping of the age at death on certain digits is another problem that is inherent in most retrospective surveys. Misreporting of age at death biases age pattern estimates of mortality if the net result is the transference of deaths between age segments for which the rates are calculated; for example, child mortality may be overestimated relative to infant mortality if children who died in the first year of life are reported as having died at age one or older. In an effort to minimize misreporting of age at death, interviewers were instructed to record deaths under one month in days and deaths under two years in months. In addition, they were trained to probe deaths reported at exactly one year or 12 months to ensure that they had actually occurred at 12 months. The distribution of deaths under two years during the 20 years prior to the survey by month of death shows that there is some heaping at 5, 15, and 18 months of age, with corresponding deficits in adjacent months (Table C.6). However, heaping is not obvious for deaths in the five years preceding the survey, for which the most recent mortality rates are calculated.

### 8.2 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

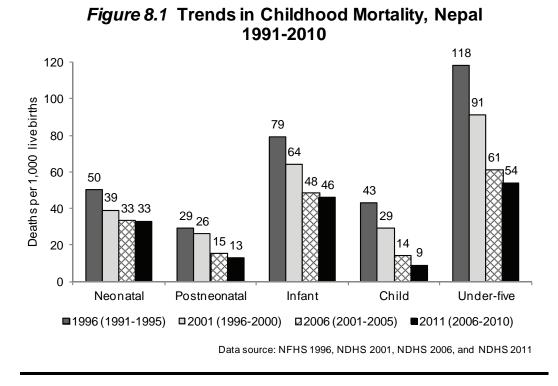
Table 8.1 presents neonatal, postnatal, infant, child, and under-five mortality rates for three five-year periods preceding the survey. Neonatal mortality in the most recent period (2006-2010) is 33 deaths per 1,000 live births. This rate is two and a half times the postneonatal rate (13 deaths per 1,000 live births) during the same period. Therefore, the risk of dying for any Nepalese child who survived the first month of life is reduced by two-fifths (i.e., 39 percent) in the remaining 11 months of the first year of life. The infant mortality rate in the five years preceding the survey is 46 deaths per 1,000 live births, and the under-five mortality rate for the same period is 54 deaths per 1,000 live births. This means that one in every 22 Nepalese children dies before reaching age 1, while one in every 19 does not survive to her or his fifth birthday. Mortality trends can be examined in two ways: by comparing mortality rates for three five-year periods preceding a single survey and by comparing mortality estimates obtained from various surveys. However, comparisons between surveys should be interpreted with caution because of variations in quality of data, time references, and sample coverage. In particular, sampling errors associated with mortality estimates are large and should be taken into account when examining trends between surveys.

	oostneonatal, in ne survey, Nepal		and under-fiv	e mortality r	ates for five	-year periods
Years preceding the survey	Approximate calendar year	Neonatal mortality (NN)	Post- neonatal mortality (PNN) <sup>↑</sup>	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
0-4 5-9 10-14	2006-2010 2001-2005 1996-2000	33 37 45	13 23 25	46 60 70	9 10 19	54 70 87

Data from the 2011 NDHS show that neonatal mortality has declined by 27 percent over the 15-year period preceding the survey, from 45 to 33 deaths per 1,000 live births. The corresponding declines in

postneonatal, infant, and under-five mortality over the 15-year period are 48 percent, 34 percent, and 38 percent.

Mortality trends can also be observed by comparing data from the 2011 NDHS with data from the 1996, 2001, and 2006 NDHS (Figure 8.1). Infant and under-five mortality rates obtained for the five years preceding the four surveys confirm a declining trend in mortality. Infant mortality has declined by 42 percent over the last 15 years, from 79 deaths per 1,000 live births in 1991-1995 to 46 per 1,000 deaths in 2006-2010. An even more impressive decline was observed in under-five mortality, which decreased by 54 percent from 118 deaths per 1,000 live births to 54 per 1,000 deaths over the same period. The data also show 34 percent and 55 percent declines in neonatal and postneonatal mortality, respectively. An examination of neonatal, infant, and under-five mortality rates in Nepal over the past 15 years reveals that neonatal mortality has decreased at a slower pace than infant and child mortality, with the result that neonatal deaths have risen from 63 percent of all infant deaths in 1996 to 72 percent in 2011 and from 42 percent of under-five deaths to 61 percent.



It is interesting to note that in the past five years there have been only minimal changes in neonatal, postneonatal, and infant mortality. In 2004, the Ministry of Health and Population (MOHP) developed and passed the National Neonatal Health Strategy. The first phase of the Community-Based Neonatal Care Package (CB-NCP) was implemented in 10 pilot districts in 2007 through the Child Health Division with the support of the government of Nepal and development partners (Karki et al., 2010). The MOHP further expanded the CB-NCP in 25 districts by 2011 (MOHP, 2011a).

Data from the 2011 NDHS show increased antenatal care and postnatal visits, improved delivery practices, and improved maternal health and newborn care indicators (see Chapter 9). These indicators are directly or indirectly related to neonatal health. Despite these improvements, neonatal mortality has remained the same over the past five years. An in-depth examination of the reasons for the stagnation in neonatal mortality is outside the scope of this report and is suggested for further analysis.

### 8.3 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

Table 8.2 shows differentials in childhood mortality by socioeconomic variables. To minimize sampling errors associated with mortality estimates and to ensure a sufficient number of cases for statistical reliability, the mortality rates shown in the table are calculated for a 10-year period.

Table 8.2 shows that infant and child mortality is higher in rural areas than in urban areas. For example, infant mortality in rural areas is 55 deaths per 1,000 live births, compared with 38 deaths per 1,000 live births in urban areas. Rural-urban differences are also significant in the case of neonatal, child, and under-five mortality rates. Moreover, there are wide differentials in infant and under-five mortality by ecological zone, with under-five mortality ranging from 62 deaths per 1,000 live births in the terai zone to 87 deaths per 1,000 live births in the mountain zone. Under-five mortality is higher in the Far-western and Mid-western development regions than in the other regions. Similarly, infant mortality is highest in the Far-western development region (65 deaths per 1,000 live births) and lowest in the Eastern development region (47 deaths per 1,000 live births).

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Nepal 2011

Background characteristic	Neonatal mortality (NN)	Post- neonatal mortality (PNN) <sup>1</sup>	Infant mortality (1q0)	Child mortality (₄q₁)	Under-five mortality (₅q₀)
<b>Residence</b> Urban Rural	25 36	13 19	38 55	7 10	45 64
<b>Ecological zone</b> Mountain Hill Terai	46 33 35	27 17 18	73 50 53	16 8 10	87 58 62
Development region Eastern Central Western Mid-western Far-western	30 36 37 34 41	17 15 16 24 24	47 52 53 58 65	8 8 4 16 18	55 60 57 73 82
Mother's education No education Primary Some secondary SLC and above	40 34 27 (20)	22 19 10 (11)	62 53 37 (31)	12 9 4 (1)	73 62 41 (32)
Wealth quintile Lowest Second Middle Fourth Highest	37 40 39 37 19	25 16 17 16 13	61 56 55 53 32	15 11 9 6 4	75 66 64 59 36

Note: Figures in parentheses are based on 250-499 unweighted exposed persons.

SLC = School Leaving Certificate <sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

As expected, mother's education is inversely related to a child's risk of dying. Under-five mortality among children born to mothers with no education (73 deaths per 1,000 live births) is more than double that of children born to mothers with an School Leaving Certificate (SLC) or a higher level of education (32 deaths per 1,000 live births). Table 8.2 also shows that the risk of dying among children below age five gradually decreases with increasing household wealth, from 75 deaths per 1,000 live births in the poorest households to 36 deaths per 1,000 live births in the wealthiest households.

#### 8.4 **DEMOGRAPHIC DIFFERENTIALS IN MORTALITY**

Demographic characteristics of both mother and child play an important role in the survival probability of children. Table 8.3 shows that neonatal mortality is slightly higher among male children but that there are few significant differences in other childhood mortality rates by sex of the child.

As expected, the relationship between maternal age at birth and childhood mortality is generally Ushaped, being relatively higher among children born to mothers under age 20 and over age 30 than among children born to mothers in the 20-29 age group. This pattern is especially obvious in the case of under-five mortality. In general, mortality rates are also significantly higher among first births and births of order seven or above than among births of order two or three. For example, 1 in 17 first births do not survive to the first year, compared with 1 in 20 births of order two or three.

The spacing of births is another factor that has a significant impact on a child's chances of survival. Generally, shorter birth intervals are associated with higher mortality, both during and after infancy. The 2011 NDHS data confirm this pattern. All childhood mortality rates show a strong relationship with the length of the previous birth interval. For example, infant mortality is more than three times higher among children born less than two years after a preceding sibling than among children born four or more years after a previous child (87 deaths and 26 deaths per 1,000 live births, respectively).

Table 8.3 Early childhood mortality rates by demographic characteristics

Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Nepal 2011

		Post-			
Demonstratio	Neonatal	neonatal	Infant	Child	Under-five
Demographic	mortality	mortality	mortality	mortality	mortality
characteristic	(NN)	(PNN) <sup>1</sup>	(1q0)	(4q1)	(5q0)
Child's sex					
Male	37	17	54	9	63
Female	33	19	52	10	62
Mother's age at birth					
<20	51	18	69	9	78
20-29	32	17	49	8	57
30-39	27	23	49	13	62
40-49	*	*	*	*	*
Birth order					
1	44	15	59	7	66
2-3	30	19	49	7	56
4-6	31	14	46	16	61
7+	42	40	83	20	100
Previous birth interval <sup>2</sup>					
<2 years	57	30	87	16	102
2 years	31	20	50	13	62
3 years	21	16	38	6	43
4+ years	14	12	26	7	32
Birth size <sup>3</sup>					
Small/very small	51	14	65	na	na
Average or larger	29	12	41	na	na

Note: An asterisk indicates that a rate is based on fewer than 250 unweighted exposed persons and has been suppressed.

<sup>1</sup>Computed as the difference between the infant and neonatal mortality rates

<sup>2</sup> Excludes first-order births
 <sup>3</sup> Rates for the five-year period before the survey

na = Not applicable

Studies have shown that children's birth weight is an important determinant of their survival chances. Since most births in Nepal occur at home, where children often are not weighed at birth, data on birth weight are available for only a few children. However, mothers in the 2011 NDHS survey were asked whether their child was very large, larger than average, average, smaller than average, or small at birth, since this has been found to be a good proxy for a child's weight. As expected, the size of the baby at birth and mortality were negatively associated. For example, 1 in 15 children regarded as very small or small did not survive to the first year, as compared with 1 in 24 children regarded as average or large in size.

## 8.5 PERINATAL MORTALITY

The 2011 NDHS asked women to report on any pregnancy loss that occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of pregnancy was recorded. In this report, perinatal deaths include pregnancy losses of at least seven months' gestation (stillbirths) and deaths to live births within the first seven days of life (early neonatal deaths). The perinatal mortality rate is the sum of stillbirths and early neonatal deaths divided by the sum of all stillbirths and live births. Information on stillbirths and infant deaths within the first week of life is highly susceptible to omission and misreporting. Nevertheless, retrospective surveys in developing countries provide more representative and accurate perinatal death rates than do vital registration systems and hospital-based studies.

Table 8.4 shows that out of the 5,444 reported pregnancies of at least seven months' gestation in the five years preceding the survey, 53 were stillbirths and 149 were early neonatal deaths, yielding an overall perinatal mortality rate of 37 per 1,000 pregnancies. Because the rate is subject to a high degree of sampling variation, differences by background characteristics should be interpreted with caution.

#### Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Nepal 2011

	• •	, ,		
Background characteristic	Number of stillbirths <sup>1</sup>	Number of early neonatal deaths <sup>2</sup>	Perinatal mortality rate <sup>3</sup>	Number of pregnancies of 7+ months' duration
Mother's age at birth <20 20-29 30-39 40-49	10 27 13 3	43 89 15 2	48 35 33 35	1,111 3,355 863 116
Previous pregnancy interval in months <sup>4</sup> First pregnancy <15 15-26 27-38 39+	19 5 8 9 12	57 10 36 25 20	44 52 40 38 23	1,732 293 1,101 884 1,434
<b>Residence</b> Urban Rural	4 49	11 137	29 38	507 4,938
<b>Ecological zone</b> Mountain Hill Terai	9 23 20	13 57 79	50 37 35	437 2,154 2,854
Development region Eastern Central Western Mid-western Far-western	16 4 10 14 9	33 58 26 18 14	38 36 36 40 37	1,286 1,721 1,017 807 614
Mother's education No education Primary Some secondary SLC and above	25 16 10 2	79 26 40 4	40 38 34 20	2,575 1,095 1,478 297
Wealth quintile Lowest Second Middle Fourth Highest	20 11 12 5 5	32 35 41 31 10	37 39 46 38 19	1,410 1,194 1,145 943 753
Total	53	149	37	5,444

SLC = School Leaving Certificate <sup>1</sup> Stillbirths are fetal deaths in pregnancies lasting seven or more months.

Early neonatal deaths are deaths at age 0-6 days among live-born children.

The sum of the number of stillbirths and early neonatal deaths divided by the number

of pregnancies of seven or more months' duration, expressed per 1000 Categories correspond to birth intervals of less than 24 months, 24-35 months, 36-47

The perinatal mortality rate is higher among young mothers (below age 20) and among births that occur less than 15 months after the previous birth. The perinatal mortality rate is higher in rural than in urban areas and higher in the mountain zone than in the hill and terai zones. It is highest in the Mid-western region. There is a marked difference in perinatal mortality by mother's education. It is twice as high among women with no education as among women with an SLC or higher level of education. Perinatal mortality is lowest among women in the highest wealth quintile. Perinatal mortality has declined from 45 to 37 deaths per 1,000 pregnancies in the last five years.

#### 8.6 **HIGH-RISK FERTILITY BEHAVIOR**

The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. Typically, the probability of dying in infancy is much greater among children born to mothers who are too young (under age 18) or too old (over age 34), children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children). The risk is elevated when a child is born to a mother who has a combination of these risk characteristics.

months, and 48+ months

The first column in Table 8.5 shows the percentages of births occurring in the five years before the survey that fall into the various risk categories. Thirty-nine percent of births in Nepal are at an elevated risk of dying that is avoidable, while 34 percent are in a risk-free category. First births, which make up 27 percent of births, are considered an unavoidable risk. Twenty-nine percent of births are in a single high-risk category, and 11 percent are in a multiple high-risk category. The most common single high-risk category is births of order higher than three (12 percent), while the most common multiple high-risk category is births to mothers above age 34 and of birth order over three (5 percent).

Table 8.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Nepal 2011

		Births in the 5 years preceding the survey			
Risk category	Percentage of births	Risk ratio	married women <sup>1</sup>		
Not in any high-risk category	33.6	1.00	38.8 <sup>a</sup>		
Unavoidable risk category First-order births between ages 18 and 34	27.4	1.09	8.8		
Single high-risk category Mother's age <18 Mother's age >34 Birth interval <24 months Birth order >3	6.7 1.1 8.6 12.1	1.61 * 1.78 (0.81)	1.3 7.3 8.4 9.9		
Subtotal	28.5	1.27	26.9		
Multiple high-risk category Age <18 and birth interval <24 months <sup>2</sup> Age >34 and birth interval <24 months Age >34 and birth order >3 Age >34 and birth interval <24 months and birth order >3 Birth interval <24 months and birth order >3	0.5 0.0 5.3 0.6 4.0	2.69 * (0.60) 3.77 2.10	0.2 0.1 20.7 1.0 3.5		
Subtotal	10.5	1.46	25.5		
In any avoidable high-risk category	39.0	1.32	52.4		
Total Number of births/women	100.0 5,391	na na	100.0 9,608		

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order three or higher.

<sup>2</sup> Includes the category age <18 and birth order >3 <sup>a</sup> Includes sterilized women

The risk ratios in the second column of Table 8.5 denote the relationship between risk factors and mortality. In general, risk ratios are higher for children in a multiple high-risk category than in a single high-risk category. The most vulnerable births are those to women older than 34 years, with a birth interval less than 24 months, and birth order of higher than three. This group of children is nearly four times as likely to die as children not in any high-risk category. Less than 1 percent of births fall in this category.

The last column of Table 8.5 shows the distribution of currently married women with the potential for having a high-risk birth by category. This column is purely hypothetical and does not take into consideration the protection provided by family planning, postpartum insusceptibility, and prolonged abstinence. However, it provides insight into the magnitude of high-risk births. Twenty-one percent of women are or would be too old (over 34) and have or would have too many children (more than three) if they were to become pregnant. A slightly lower proportion of women (26 percent) have the potential of having a birth in a multiple high-risk category than in a single high-risk category (27 percent).

na = Not applicable

### Key Findings:

- About 6 in 10 mothers receive antenatal care from a skilled provider, a significant improvement from 24 percent in 1996.
- Fifty percent of women make four or more antenatal care visits during their pregnancy, a five-fold increase in the past 15 years. The median duration of pregnancy for the first antenatal visit is 3.7 months.
- Eighty-two percent of mothers with a birth in five years preceding the survey were protected against neonatal tetanus.
- More than one in three births in the past five years have been assisted by a skilled provider. Skilled birth attendance has doubled over this period.
- In the two years before the survey, 45 percent of women received postnatal care for their last birth in the first two days after delivery.
- Only 38 percent of women are aware that abortion is legal in Nepal. In addition, their knowledge of the specific circumstances under which abortion is legal is poor.

The maternal mortality ratio (MMR) in Nepal decreased substantially between 1996 and 2006, from 539 to 281 deaths per 100,000 births (Ministry of Health and Population [MOHP], New ERA, and Macro International Inc., 2007). Improvements in maternal health services have been key in reducing the country's MMR. The National Safe Motherhood Program has made significant progress in terms of development of policies and protocols as well as expansion of the role of service providers such as staff nurses and auxiliary nurse midwives. The National Safe Motherhood Program is a priority for the government of Nepal's Health Sector Strategy, which works toward meeting the Tenth Five-year Poverty Reduction Strategy and health sector targets set out in the Millennium Development Goals (MDGs). The target for maternal health is to reduce the MMR by three-quarters between 1990 and 2015. The Policy on Skilled Birth Attendants, endorsed in 2006 by the MOHP, specifically identifies the importance of skilled birth attendants (SBAs) at every birth and embodies the government's commitment to training and deploying doctors, nurses, and auxiliary nurse midwives with the required skills across the country. In order to ensure focused and coordinated efforts among various stakeholders involved in safe motherhood and neonatal health programming, the National Safe Motherhood (2002-2007) Program has been revised with wider participation by the government and nongovernmental, national, and international institutions. By the end of 2008-2009, the birth preparedness package (BPP) had been rolled out in all 75 districts. Similarly, a maternity incentive scheme was adopted in 2005 to encourage women to use health facilities for maternity care and improve access to maternity care services (MOHP, 2011a).

The health care services that a woman receives during pregnancy, childbirth, and the immediate postnatal period are important for the survival and well-being of both the mother and the child. The 2011 NDHS collected information on the extent to which women in Nepal receive care during each of these stages. The findings can be used to identify subgroups of women at increased risk of mortality because of nonuse of maternal health services and to assist in the planning of appropriate improvements in services.

### 9.1 ANTENATAL CARE

Antenatal care (ANC) from a skilled provider is important to monitor the pregnancy and reduce the risk of morbidity for mother and baby during pregnancy and delivery. The quality of antenatal care can be monitored through the content of services received and the kind of information mothers are given during their visit. Information on ANC coverage was obtained from women who gave birth in the five years preceding the survey. Among women with two or more live births during the five-year period, data refer to the most recent birth only.

Table 9.1 shows the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy, according to selected characteristics. Women were asked to report on

all persons they saw for antenatal care for their last birth. However, if a woman saw more than one provider, only the provider with the highest qualifications was considered in the tabulation of results.

Fifty-eight percent of mothers received antenatal care from a skilled provider (a doctor, nurse, or midwife) for their most recent birth in the five years preceding the survey. In addition, 26 percent of mothers received antenatal care from trained health workers such as a health assistant or auxiliary health worker (AHW), a maternal and child health worker (MCHW), or a village health worker (VHW). Less than 1 percent of women received antenatal care from a female community health volunteer (FCHV). Fifteen percent of women received no antenatal care for births in the five years before the survey.

#### Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Nepal 2011

_			Antenatal ca	are provider			_		Percentage receiving antenatal	
Background characteristic	Doctor	Nurse/ midwife	Health assistant/ AHW	MCHW	VHW	FCHV	No ANC	Total	care from a skilled provider <sup>1</sup>	Number of women
Mother's age at birth										
<20 20-34	25.6 28.2	37.9 31.6	9.6 12.4	14.4 12.2	1.1 1.4	0.5	10.9	100.0 100.0	63.5 59.8	739 3,085
20-34 35-49	28.2 17.2	14.3	6.6	12.2	1.4	0.7 4.0	13.5 40.7	100.0	31.5	3,085
Birth order										
1	37.1	35.8	11.2	8.9	0.8	0.3	5.9	100.0	72.8	1,302
2-3 4-5	27.6 13.9	32.6 28.5	11.6 13.2	13.4 15.5	1.6 1.4	0.7 2.2	12.4 25.3	100.0 100.0	60.2 42.4	1,895 614
4-5 6+	6.9	12.9	8.3	20.3	2.3	1.8	47.4	100.0	19.8	337
Residence										
Urban	59.3	28.6	3.3	1.8	0.2	0.3	6.3	100.0	87.9	418
Rural	23.3	31.7	12.4	14.1	1.5	1.0	16.1	100.0	54.9	3,730
Ecological zone Mountain	10.1	42.0	9.7	14.9	0.4	0.3	22.6	100.0	52.1	306
Hill	23.5	29.7	9.7 12.0	14.9	0.4	1.7	22.0	100.0	53.2	1.669
Terai	31.9	31.1	11.2	13.4	1.9	0.4	10.1	100.0	63.0	2,174
Development region										
Eastern	26.4	34.3	14.0	11.4	1.4	0.6	11.9	100.0	60.7	999
Central Western	34.9 29.9	21.6 30.0	14.5 8.6	10.5 12.9	1.5 1.8	0.0 1.9	17.0 14.8	100.0 100.0	56.4 59.9	1,293 818
Mid-western	14.2	39.0	7.8	15.0	1.0	1.9	21.2	100.0	53.1	598
Far-western	16.2	45.6	6.9	20.0	0.7	1.2	9.5	100.0	61.8	440
Subregion										
Eastern mountain Central mountain	9.7 19.4	40.7 39.8	13.3 15.2	17.9 2.9	1.7 0.0	0.0 0.6	16.7 22.3	100.0 100.0	50.3 59.2	78 72
Western mountain	5.9	43.7	5.3	19.1	0.0	0.8	25.7	100.0	49.7	155
Eastern hill	14.5	36.9	22.4	4.0	2.2	1.0	19.0	100.0	51.4	331
Central hill	45.1	16.1	12.3	7.7	0.4	0.0	18.4	100.0	61.2	403
Western hill Mid-western hill	23.6 10.3	27.7 33.1	10.6 6.5	13.6 17.0	0.8 0.0	2.8 2.7	21.0 30.4	100.0 100.0	51.3 43.3	488 275
Far-western hill	11.0	48.5	4.4	22.8	0.7	2.4	10.3	100.0	59.5	171
Eastern terai	35.3	32.1	9.4	14.8	0.9	0.4	7.2	100.0	67.3	589
Central terai Western terai	31.2 39.3	22.6 33.5	15.5 5.7	12.6 11.8	2.2 3.2	0.0 0.7	15.9 5.8	100.0 100.0	53.9 72.8	818 330
Mid-western terai	39.3 21.7	33.5 39.3	5.7 10.8	15.1	3.2 2.5	0.7 1.5	5.8 9.1	100.0	60.9	238
Far-western terai	24.2	49.5	8.8	13.3	0.9	0.2	3.1	100.0	73.7	200
Education										
No education	14.5	27.5	12.7	17.9	1.6	1.2	24.7	100.0	42.0	1,822
Primary Some secondary	19.4 35.8	36.6 36.7	14.2 12.0	13.3 7.9	1.3 1.2	0.9 0.6	14.4 5.9	100.0 100.0	56.0 72.4	835 866
SLC and above	60.7	28.3	3.5	4.5	1.1	0.7	1.2	100.0	89.0	627
Wealth quintile										
Lowest	6.8	26.5	13.6	17.7	0.8	1.6	32.9	100.0	33.3	979
Second Middle	11.4 22.9	33.3 35.4	15.4 15.0	17.7 14.6	1.9 2.4	1.7 0.4	18.5 9.2	100.0 100.0	44.7 58.3	899 873
Fourth	42.3	35.4 35.6	7.0	7.6	2.4	0.4	9.2 6.3	100.0	58.3 77.9	748
Highest	66.1	25.7	3.2	2.6	0.2	0.3	2.0	100.0	91.8	649
Total	26.9	31.4	11.4	12.9	1.4	0.9	15.2	100.0	58.3	4,148

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. AHW = auxiliary health worker; MCH = maternal and child health worker; VHW = village health worker; FCHV = female community health volunteer; SLC = School Leaving Certificate Skilled provider includes doctor, nurse, and midwife

Younger mothers (less than age 20) are more likely to receive antenatal care from a skilled provider than older mothers (age 35-49). Mothers are also much more likely to receive care from a skilled provider for their first births (73 percent) than for births of order six and higher (20 percent).

There are large differences in the use of antenatal care services between urban and rural women. Eighty-eight percent of urban mothers received antenatal care from a skilled provider, compared with only 55 percent of rural mothers. Sixty-three percent of mothers living in the terai received antenatal care from a skilled provider, compared with 53 percent of mothers in the hill zone and 52 percent of mothers in the mountain zone. About 60 percent of mothers living in the Far-western, Eastern, and Western regions received antenatal care from a skilled provider. Less than 55 percent of mothers living in the Mid-western region received antenatal care from a skilled provider. The proportion of women who received antenatal care from a skilled provider was lowest in the Mid-western hill subregion (43 percent) and highest in the Western terai (73 percent) and Far-western terai (74 percent) subregions.

The use of antenatal care services from a skilled provider is strongly related to the mother's level of education. Women with a School Leaving Certificate (SLC) and higher are more than twice as likely to receive antenatal care from a skilled provider (89 percent) as women with no education (42 percent). Similarly, women in the highest wealth quintile are almost three times as likely to receive care from a skilled provider (92 percent) as women in the lowest wealth quintile (33 percent).

The proportion of women receiving antenatal care from a skilled provider has more than doubled in the past 15 years, from 24 percent in 1996 to 58 percent in 2011.

## 9.1.1 Number and Timing of Antenatal Visits

Regular antenatal care is helpful in identifying and preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery. WHO recommends that a woman should have at least four ANC visits. It is possible during these visits to detect health problems associated with a pregnancy. In the event of any complications, more frequent visits are advised, and admission to a health facility may be necessary.

Table 9.2 presents information on the number of antenatal visits and the timing of the first antenatal visit for the most recent birth in the five years preceding the survey. The findings show that 50 percent of pregnant women make four or more antenatal care visits during their entire pregnancy. Urban women (72 percent) are more likely to have had four or more antenatal visits than rural women (48 percent).

Fifty percent of women made their first

Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Nepal 2011

Number and timing	Resi	dence	
of ANC visits	Urban	Rural	Total
Number of ANC visits			
None	6.3	16.1	15.2
1	2.9	6.5	6.1
2-3	19.0	29.7	28.6
4+	71.8	47.7	50.1
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	6.3	16.1	15.2
<4	67.3	47.7	49.7
4-5	19.9	26.8	26.1
6-7	5.6	7.6	7.4
8+	0.7	1.8	1.7
Don't know/missing	0.1	0.0	0.0
Total	100.0	100.0	100.0
Number of women	418	3,730	4,148
Median months pregnant at first visit (for those with ANC) Number of women with ANC	3.4 392	3.8 3,128	3.7 3,520

antenatal care visit before the fourth month of pregnancy. The median duration of pregnancy at the first antenatal care visit was 3.7 months (3.4 months in urban areas and 3.8 months in rural areas).

Over the past 15 years, there has been a five-fold increase in the percentage of women with four or more antenatal visits during their pregnancy (from 9 percent in 1996 to 50 percent in 2011).

## 9.2 COMPONENTS OF ANTENATAL CARE

The content of antenatal care is an essential component of ANC service quality. Focused antenatal care hinges on the principle that every pregnancy is at risk of complications. Therefore, apart from receiving basic care, every pregnant woman should be monitored for complications. Ensuring that pregnant women receive information and undergo screening for complications should be a routine part of all antenatal care visits. To assess ANC services, mothers in the 2011 NDHS were asked a number of questions about the care they received during pregnancy for their most recent live birth in the five years preceding the survey.

Table 9.3 presents information on the percentage of women who took iron tablets and intestinal parasite drugs during their most recent pregnancy in the five years preceding the survey. The table also shows the percentage of women who were informed about the signs of pregnancy complications and, among women receiving antenatal care, the percentage who received specific routine antenatal care services.

Among women with a live birth in the past five years, 80 percent took iron tablets and 55 percent took intestinal parasite drugs during their most recent pregnancy. There are substantial variations by background characteristics. Women less than age 34 at delivery, women pregnant with their first child, urban women, women residing in the terai, women living in the Far-western and Eastern regions (and particularly the Far-western hill, Eastern terai, Western terai, Mid-western terai, and Far-western terai subregions), women with at least some secondary education, and women in the middle and higher wealth quintiles were more likely than their counterparts to take iron tablets during their pregnancy.

A similar pattern by background characteristics is seen in use of drugs for intestinal parasites, with the exception of place of residence. Rural women are slightly more likely than urban women to have taken drugs for intestinal parasites. There is little variation by wealth quintile with the exception of women in the lowest quintile, who are least likely to take anti-parasitic drugs.

#### Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Nepal 2011

	five years, t	nen with a live bir the percentage w nancy of their las	ho during the	Among women who received antenatal care for their most recent birth i past five years, the percentage with selected services						
- Background characteristic	Took iron tablets or syrup		Number of women with a live birth in the past five years	Informed of signs of pregnancy complications	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women with ANC for their most recent birth		
Mother's age at birth										
<20	82.9	58.7	739	76.1	87.6	54.4	44.9	658		
20-34	81.5	56.5	3,085	76.0	86.8	57.1	46.2	2,669		
35-49	53.0	33.7	325	66.7	78.0	44.3	34.4	192		
Birth order										
1	89.7	64.4	1,302	80.7	92.5	67.3	58.2	1,225		
2-3	82.0	57.3	1,895	76.4	85.4	55.0	43.7	1,659		
4-5	69.2	41.1	614	65.4	79.7	38.7	27.7	459		
6+	45.2	33.0	337	57.7	71.4	29.6	16.4	177		
Residence										
Urban	88.9	49.8	418	83.2	95.3	83.9	77.2	392		
Rural	78.5	55.7	3,730	74.5	85.3	52.4	41.3	3,128		
Ecological zone										
Mountain	73.0	58.2	306	83.5	86.0	37.7	28.3	237		
Hill	75.0	50.9	1,669	80.8	84.7	52.0	41.9	1,328		
Terai	83.9	58.0	2,174	70.9	87.6	60.7	49.7	1,955		
Development region										
Eastern	82.8	60.9	999	78.8	90.6	59.7	45.5	880		
Central	76.6	41.8	1,293	63.3	86.7	61.3	53.0	1,073		
Western	79.0	54.2	818	77.7	83.6	58.2	47.9	697		
Mid-western	74.6	62.2	598	82.8	81.3	48.5	32.3	472		
Far-western	88.5	73.3	440	88.6	87.6	37.6	35.0	398		
Subregion										
Eastern mountain	75.2	63.1	78	84.9	90.9	32.0	24.3	65		
Central mountain	72.0	50.9	72	75.5	88.7	51.8	36.3	56		
Western mountain Eastern hill	72.4 73.9	59.2 53.3	155 331	86.7 75.7	81.9 83.1	34.1 42.0	26.5 26.8	115 268		
Central hill	73.9	53.3 39.7	403	77.6	97.4	42.0 73.3	20.8 63.6	329		
Western hill	73.6	48.2	403	81.2	79.3	51.8	42.9	329		
Mid-western hill	67.9	57.4	275	88.6	75.5	48.3	30.9	191		
Far-western hill	86.4	69.7	171	86.0	83.2	29.3	32.9	153		
Eastern terai	88.9	64.9	589	79.5	94.3	71.8	57.3	547		
Central terai	76.4	42.1	818	55.5	81.4	56.4	49.2	688		
Western terai	87.0	63.0	330	73.3	88.9	66.1	53.9	311		
Mid-western terai	83.3	68.4	238	76.6	84.3	51.1	33.8	216		
Far-western terai	95.7	81.8	200	91.0	92.6	47.1	40.7	194		
Education										
No education	69.0	44.4	1,822	63.9	79.2	40.7	31.0	1,372		
Primary	78.8	56.4	835	74.6	85.2	52.9	40.0	714		
Some secondary	89.7	67.7	866	82.6	91.5	63.0	52.8	814		
SLC and above	97.2	67.2	627	92.8	97.5	83.7	73.4	619		
Wealth quintile										
Lowest	61.8	43.8	979	69.6	77.0	31.2	20.2	657		
Second	77.8	55.8	899	70.8	81.4	37.8	26.2	733		
Middle	82.1	58.9	873	69.5	85.3	50.3	39.9	792		
Fourth	88.6	61.7	748	81.2	91.8	75.9	63.1	701		
Highest	94.8	58.7	649	88.3	97.5	87.1	80.3	637		
Total	79.5	55.1	4.148	75.5	86.4	55.9	45.3	3,520		

More than three-fourths (76 percent) of mothers who received antenatal care reported that they were informed about pregnancy complications during an antenatal visit. Eighty-six percent of pregnant women who sought antenatal care had their blood pressure taken. Fifty-six percent and 45 percent of women had urine and blood taken for testing, respectively.

The quality of antenatal care is particularly related to mother's education, wealth, residence, and birth order. For example, 98 percent of women with an SLC and higher education had their blood pressure measured, compared with 79 percent of women with no education. Women in the lowest wealth quintile were less often provided information about pregnancy complications (70 percent) than women in the highest wealth quintile (88 percent). Slightly more urban women (83 percent) than rural women (75 percent) were provided information about pregnancy complications.

The overall quality of antenatal care has improved in the past five years. The percentage of pregnant women who were informed of complications during pregnancy increased by 32 percent, the percentage who had their blood pressure measured increased by 10 percent, and the percentage who had urine samples taken increased by 77 percent during that period.

## 9.3 TETANUS TOXOID VACCINATION

Neonatal tetanus is a leading cause of death among infants in developing countries where a considerable proportion of deliveries take place at home or at locations where hygienic conditions may be poor. Tetanus toxoid (TT) vaccine is given to women during pregnancy to prevent infant deaths caused by neonatal tetanus, which can occur when sterile procedures are not followed in cutting the umbilical cord after delivery. For full protection, women should receive at least two doses of TT vaccine during each pregnancy. If a woman has been vaccinated during a previous pregnancy or during maternal and neonatal tetanus vaccination campaigns, however, she may require only one dose for the current pregnancy. Five doses are considered to provide lifetime protection.

Table 9.4 presents the percentage of women who had a live birth in the five years preceding the survey and whose last birth was protected against neonatal tetanus. More than four of five mothers (82 percent) with a birth in the five years preceding the survey were protected against neonatal tetanus. More than two-thirds (70 percent) of pregnant women received two or more tetanus injections during their last pregnancy.

Younger mothers (less than age 34), mothers of lower order births (three and below), and urban mothers are more likely to have received two or more tetanus injections during their last pregnancy than their counterparts. There are marked differences in tetanus toxoid coverage by ecological zone, development region, and subregion. Over 70 percent of mothers from the terai, Eastern and Central regions, and Eastern terai, Central terai, and Western terai subregions received two or more tetanus toxoid injections. Education and wealth have a positive impact on receipt of tetanus toxoid injections, with coverage of two doses or more ranging from a low of 60 percent among mothers with no education to a high of 87 percent among mothers with an SLC and higher education. Similarly, coverage with two or more doses of tetanus toxoid ranges from a low of 50 percent among mothers in the poorest households to 88 percent among mothers in the wealthiest households.

Between 2006 and 2011, the percentage of mothers who received at least two tetanus toxoid injections for their last birth and the percentage whose last birth was protected against neonatal tetanus increased by just 10 percent and 4 percent, respectively.

Table 9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid (TT) injections during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Nepal 2011

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus <sup>1</sup>	Number of mothers
Mother's age at birth			
<20	73.2	82.5	739
20-34 35-49	71.2 47.8	83.7 58.6	3,085 325
Birth order		0010	020
1	80.3	87.6	1,302
2-3	71.2	85.9	1,895
4-5 6+	57.5 42.6	69.9 54.6	614 337
Residence			
Urban	80.7	90.8	418
Rural	68.5	80.5	3,730
Ecological zone			
Mountain Hill	60.9 62.4	69.6 73.0	306 1,669
Terai	76.5	89.8	2,174
Development region			
Eastern	72.2	83.6	999
Central Western	74.3 66.3	84.5 78.8	1,293 818
Mid-western	61.0	70.0	598
Far-western	68.6	85.9	440
Subregion			
Eastern mountain	61.3	74.6	78
Central mountain Western mountain	57.3 62.5	63.8 69.7	72 155
Eastern hill	63.3	73.2	331
Central hill	69.3	78.6	403
Western hill	57.1	70.0	488
Mid-western hill Far-western hill	56.2 69.6	63.4 83.3	275 171
Eastern terai	78.7	90.7	589
Central terai	78.3	89.3	818
Western terai Mid-western terai	79.9 66.7	91.8 83.6	330 238
Far-western terai	69.2	92.9	200
Education			
No education	60.4	72.6	1,822
Primary	66.4	80.0	835
Some secondary SLC and above	80.4 86.5	90.7 96.8	866 627
Wealth quintile			
Lowest	49.8	59.6	979
Second	61.7	77.4	899
Middle Fourth	77.7 80.5	90.2 92.1	873 748
Highest	87.8	96.4	649
Total	69.7	81.5	4,148
<sup>1</sup> Includes mothers with	two inigations du	ring the pressor	of their leat hirth

<sup>1</sup> Includes mothers with two injections during the pregnancy of their last birth, or two or more injections (the last within three years of the last live birth), or three or more injections (the last within five years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth SLC = School Leaving Certificate

# 9.4 PLACE OF DELIVERY

Increasing the percentage of births delivered in health facilities is important for reducing deaths arising from complications of pregnancy. The expectation is that if complications arise during delivery in a health facility, a skilled attendant can manage the complication or refer the mother early to the next level of care. Hence, Nepal is promoting safe motherhood through initiatives such as providing financial assistance through maternity incentives schemes to women seeking skilled delivery care in a health facility. Subsidies are also provided to health institutions on the basis of deliveries conducted.

Table 9.5 presents the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics. Thirty-five percent of births take place in a health facility: 26 percent are delivered in a public-sector health facility, 2 percent in a nongovernment facility, and 7 percent in

a private facility. Still two-thirds of births (63 percent) take place at home. Delivery in a health facility is more common among mothers less than age 34 (35-41 percent) and mothers of first-order births (54 percent). Children in urban areas are more than twice as likely (71 percent) to be delivered in an institutional setting as children born in rural areas (32 percent). Delivery in a health facility varies widely by ecological region, being lowest in the mountain zone (19 percent) and highest in the terai (41 percent). Institutional deliveries range from a low of 29 percent in the Far-western and Mid-western regions to a high of 40 percent in the Eastern region, and they are most frequent in the Eastern terai subregion, where one of two mothers has a facility-based delivery. There is a strong association between health facility delivery, mother's education, and wealth quintile. The proportion of deliveries in a health facility is nearly four times higher among births to mothers with an SLC and higher education (75 percent) than among births to mothers with no education (19 percent). A similar pattern is seen in terms of wealth quintile: delivery at a health facility is significantly lower among births in the lowest wealth quintile (11 percent) than in the highest wealth quintile (78 percent).

#### Table 9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Nepal 2011

		Health facility					Percentage	
Background characteristic	Government sector	Non- government sector	Private sector	Home	Other	Total	delivered in a health facility	Number of births
Mother's age at birth								
<20	33.0	2.2	6.1	57.7	1.1	100.0	41.2	1,101
20-34	25.2	2.1	7.9	63.2	1.6	100.0	35.2	3,910
35-49	13.6	2.5	3.8	77.1	3.1	100.0	19.9	380
Birth order								
1	38.5	4.0	11.6	44.5	1.4	100.0	54.1	1,833
2-3	22.8	1.6	6.7	67.3	1.6	100.0	31.1	2,368
4-5	15.1	0.1	2.0	81.7	1.1	100.0	17.2	773
6+	8.6	0.8	1.1	86.3	3.3	100.0	10.4	417
Antenatal care visits <sup>1</sup>								
None	6.7	0.1	1.4	90.1	1.7	100.0	8.3	629
1-3	18.5	1.2	4.0	74.4	1.9	100.0	23.7	1,442
4+	41.8	4.0	12.1	40.5	1.6	100.0	58.0	2,078
Residence								
Urban	51.8	2.8	16.7	27.9	0.8	100.0	71.3	503
Rural	23.3	2.1	6.3	66.7	1.7	100.0	31.6	4,888
Ecological zone								
Mountain	16.3	0.6	2.0	79.4	1.7	100.0	18.8	428
Hill	25.6	1.3	4.4	66.4	2.3	100.0	31.3	2,130
Terai	27.7	3.0	10.2	58.1	1.0	100.0	40.9	2,833
Development region								
Eastern	24.8	6.0	8.8	59.3	1.1	100.0	39.6	1,269
Central	25.7	0.5	9.5	63.0	1.2	100.0	35.7	1,717
Western	31.6	1.8	4.7	59.8	2.2	100.0	38.0	1,007
Mid-western	23.6	0.3	5.2	69.0	1.9	100.0	29.1	793
Far-western	22.8	1.7	4.4	68.9	2.2	100.0	29.0	605
Subregion								
Eastern mountain	17.5	0.3	1.8	79.7	0.7	100.0	19.6	101
Central mountain	19.0	2.2	5.0	72.2	1.7	100.0	26.1	96
Western mountain	14.6	0.0	0.9	82.3	2.2	100.0	15.5	230
Eastern hill	19.7	2.8	2.9	73.0	1.5	100.0	25.5	416
Central hill	35.6	0.2	10.0	52.7	1.4	100.0	45.9	495
Western hill	26.9	0.6	3.6	66.0	3.0	100.0	31.1	604
Mid-western hill	22.9	0.1	1.4	72.4	3.1	100.0	24.5	367
Far-western hill	16.3	4.2	1.8	75.3	2.4	100.0	22.3	247
Eastern terai	28.5	8.6	12.9	49.0	0.9	100.0	50.1	752
Central terai	21.9	0.4	9.7	66.8	1.1	100.0	32.1	1,126
Western terai	38.5	3.5	6.4	50.6	1.0	100.0	48.4	402
Mid-western terai Far-western terai	28.0 32.9	0.6 0.0	11.9 8.3	59.6 56.6	0.0 2.2	100.0 100.0	40.4 41.1	301 252
	52.3	0.0	0.0	50.0	2.2	100.0	71.1	202
Mother's education	15.0	0.6	25	70.0	1.2	100.0	10.2	0.550
No education	15.3	0.6	3.5	79.3	1.3	100.0	19.3	2,550
Primary	23.3 38.2	1.8	6.4 8.9	66.7	1.8 1.2	100.0	31.5	1,079
Some secondary SLC and above	38.2 49.8	4.1 5.4	8.9 19.4	47.6 22.8	2.6	100.0 100.0	51.3 74.6	1,039 723
	10.0	0.1	10.1	22.0	2.0	100.0	7 1.0	120
Wealth quintile Lowest	9.6	0.7	1.1	86.5	2.0	100.0	11.4	1,390
Second	19.7	0.4	3.1	74.9	1.7	100.0	23.3	1,182
Middle	28.4	1.1	5.9	63.2	1.4	100.0	35.4	1,133
Fourth	36.3	4.6	11.0	46.9	1.4	100.0	51.9	938
Highest	49.5	5.9	22.4	21.0	1.1	100.0	77.9	748
~								

<sup>1</sup> Includes only the most recent birth in the five years preceding the survey

SLC = School Leaving Certificate

The percentage of births taking place in a health facility has doubled in the past five years (from 18 percent in 2006 to 35 percent in 2011) as a result of continued government encouragement of institutional deliveries through free delivery services and payment for transportation costs.

Women who did not deliver in a health facility were asked for their reasons for not doing so. Table 9.6 shows that a large majority of women who did not deliver in a health facility believed that it was not necessary (62 percent). In addition, 14 percent of women said that the health facility was too far or they had transportation problems, and 10 percent said it was not customary. Eight percent of women reported that the child was delivered before reaching a health facility, and 5 percent reported cost as a barrier to having a delivery in a health facility.

#### Table 9.6 Reasons for not delivering in a health facility

Among last live births not delivered in a health facility, percentage whose mothers cite specific reasons for not delivering in a facility, according to background characteristics, Nepal 2011

Background characteristic	Cost too much	Facility not open	Too far/ no transpor- tation	Don't trust facility/ poor- quality service	No female provider at facility	Husband/ family did not allow	Security concerns	Not necessary	Not customary	Child born before reaching facility	Other	Total number of births
Residence												
Urban	3.6	1.0	7.6	1.5	0.0	3.1	0.0	56.8	3.9	19.0	7.2	107
Rural	4.6	1.5	13.7	2.0	0.2	2.8	0.3	62.5	9.8	7.6	4.0	2,444
Ecological zone												
Mountain	1.0	1.2	24.5	1.6	0.2	1.3	0.2	62.8	9.3	7.0	5.3	242
Hill	1.8	1.3	18.1	1.1	0.3	1.5	0.1	58.4	16.1	7.2	5.0	1,088
Terai	7.7	1.7	7.1	2.9	0.2	4.2	0.5	65.5	3.8	8.9	3.2	1,221
Development region												
Eastern	4.4	0.9	11.1	2.6	0.6	2.8	0.0	60.8	9.0	10.8	9.1	570
Central	8.0	1.1	10.0	2.6	0.1	3.3	0.4	67.1	5.6	7.2	1.5	790
Western	2.6	0.9	6.0	0.4	0.0	1.8	0.0	71.7	13.2	6.6	2.4	488
Mid-western	2.4	0.3	28.0	1.8	0.2	3.1	0.4	50.3	14.3	7.0	5.4	404
Far-western	1.7	6.3	19.7	2.4	0.4	2.5	1.2	52.6	8.8	8.9	2.8	300
Subregion												
Eastern mountain	1.1	2.4	14.8	2.2	0.0	2.2	0.0	54.5	13.5	16.0	8.3	62
Central mountain	3.1	0.0	21.3	0.8	0.8	1.6	0.8	71.9	12.4	2.0	3.1	53
Western mountain	0.0	1.2	30.5	1.6	0.0	0.8	0.0	63.1	6.0	4.8	4.8	127
Eastern hill	5.6	0.4	19.4	1.4	0.4	1.3	0.0	57.3	14.2	8.0	8.8	240
Central hill	1.6	3.2	13.6	2.4	0.0	2.8	0.0	59.3	11.4	11.8	3.6	196
Western hill	0.1	1.3	7.5	0.6	0.0	1.2	0.0	67.0	17.0	7.4	2.5	329
Mid-western hill	0.8	0.0	31.4	0.8	0.4	2.0	0.8	48.0	21.4	4.6	7.5	198
Far-western hill	0.9	1.9	29.8	0.5	0.9	0.0	0.0	53.1	16.1	2.3	2.0	125
Eastern terai	4.1	1.1	2.8	3.7	0.9	4.3	0.0	65.3	3.2	12.1	9.5	268
Central terai	10.8	0.5	7.6	2.8	0.0	3.7	0.5	69.5	2.8	6.0	0.6	540
Western terai	7.6	0.0	3.0	0.0	0.0	3.0	0.0	81.4	5.4	4.9	2.2	159
Mid-western terai	6.0	0.0	15.9	2.7	0.0	5.6	0.0	52.6	7.1	10.2	2.7	135
Far-western terai	3.3	13.4	10.7	5.6	0.0	6.4	3.1	41.0	3.5	19.6	2.5	119
Mother's education												
No education	6.0	1.4	14.5	1.6	0.2	3.2	0.4	62.2	11.3	5.8	3.9	1,445
Primary	4.2	2.4	13.4	2.8	0.4	2.8	0.2	60.7	8.4	9.3	3.8	549
Some secondary	1.3	0.4	9.9	2.9	0.2	2.4	0.3	64.5	6.1	10.9	6.4	399
SLC and above	0.0	1.9	13.5	1.2	0.0	0.2	0.0	62.1	6.3	17.2	2.0	157
Wealth quintile												
Lowest	3.0	1.9	22.2	1.3	0.1	1.5	0.2	54.9	17.8	5.2	4.0	852
Second	6.7	2.0	11.0	1.6	0.2	3.9	0.4	65.4	9.0	5.0	5.1	670
Middle	6.7	0.9	9.6	1.5	0.1	3.4	0.4	64.6	4.5	10.8	3.4	554
Fourth	2.0	0.1	5.8	3.2	0.9	3.5	0.4	67.9	1.8	14.6	3.7	346
Highest	0.9	2.4	5.4	8.1	0.0	0.9	0.0	68.2	0.7	12.9	4.4	128
Total	4.5	1.5	13.5	2.0	0.2	2.8	0.3	62.2	9.5	8.0	4.1	2,551

# 9.5 Assistance during Delivery

Obstetric care from a health professional during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Children delivered at home are usually more likely to be delivered without assistance from a trained provider, whereas children delivered at a health facility are more likely to be delivered by a trained health professional.

Table 9.7 shows delivery assistance by type of provider according to background characteristics. More than one-third (36 percent) of births take place with the assistance of a skilled birth attendant (SBA), which includes doctor, nurse, or midwife. Health assistants or AHWs assist in the delivery of 4 percent of births, FCHVs assist in 3 percent, and traditional birth attendants assist in 11 percent. Two in five (40 percent) births are attended by a relative or some other person, while 3 percent of births take place without any type of assistance.

Births to mothers less than age 20 and first-order births (42 percent and 55 percent, respectively) are more likely to be assisted by an SBA. Not surprisingly, substantially more births delivered in a health facility than births delivered elsewhere are attended by an SBA.

Seventy-three percent of urban births are assisted by an SBA, compared with 32 percent of births in rural areas. Births in the terai, and particularly in the Eastern terai subregion, are more likely to be attended by an SBA than births in other areas.

#### Table 9.7 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and percentage delivered by cesarean section, according to background characteristics, Nepal 2011

_				son providin	g assistant	e during deliv	very			Percentage		
_			Health			Traditional				delivered by	Percentage	
Background characteristic	Doctor	Nurse/ midwife	assistant/ AHW	MCHW/ VHW	FCHV	birth attendant	Relative/ other	No one	Total	a skilled provider <sup>1</sup>	delivered by C-section	Number of births
Mother's age at birth												
<20	16.9	25.3	3.3	2.5	4.0	11.2	35.5	1.4	100.0	42.1	3.0	1,101
20-34	18.0	17.9	4.1	2.0	3.1	11.6	40.2	3.0	100.0	35.9	5.0	3,910
35-49	10.8	9.0	3.1	0.8	2.2	8.0	56.8	9.4	100.0	19.8	5.0	380
Birth order												
1	27.9	27.1	3.8	2.2	3.5	7.5	27.4	0.7	100.0	54.9	7.4	1,833
2-3	15.3	16.4	4.3	2.3	3.2	12.6	43.5	2.3	100.0	31.8	4.2	2,368
4-5	6.3	12.1	3.0	1.8	3.1	16.1	50.8	6.8	100.0	18.4	1.7	773
6+	2.2	7.9	2.9	0.5	2.1	11.0	61.2	12.3	100.0	10.1	0.0	417
Place of delivery												
Health facility	47.3	49.5	2.2	0.8	0.0	0.0	0.2	0.1	100.0	96.8	13.0	1,905
Elsewhere	0.9	2.0	4.8	2.7	5.0	17.4	62.4	4.8	100.0	2.8	0.0	3,487
Residence												
Urban	43.4	29.3	1.5	0.2	1.6	4.9	17.5	1.5	100.0	72.7	15.3	503
Rural	14.6	17.7	4.1	2.2	3.4	11.9	42.8	3.3	100.0	32.3	3.5	4,888
Ecological zone												
Mountain	6.2	12.7	2.3	1.4	3.6	2.3	65.6	5.9	100.0	18.9	1.4	428
Hill	14.8	15.6	3.7	1.6	3.2	2.8	52.8	5.5	100.0	30.4	3.7	2,130
Terai	20.8	22.1	4.2	2.5	3.2	19.0	27.3	1.0	100.0	42.8	5.8	2,833
Development region												
Eastern	22.4	19.6	4.7	2.2	2.7	6.3	40.2	1.8	100.0	42.0	6.2	1,269
Central	18.5	17.4	4.4	1.1	2.6	18.2	36.2	1.7	100.0	35.9	5.9	1,717
Western	17.8	20.0	4.5	1.8	3.4	11.3	38.6	2.6	100.0	37.8	3.8	1,007
Mid-western	8.9	19.8	2.5	2.5	2.7	7.0	47.8	8.9	100.0	28.7	2.4	793
Far-western	13.2	17.4	1.3	4.2	6.3	7.5	46.5	3.5	100.0	30.7	1.8	605
Subregion												
Eastern mountain	6.5	13.7	4.8	3.5	3.8	3.6	62.0	2.0	100.0	20.3	1.5	101
Central mountain	11.6	14.1	3.6	1.7	6.0	1.9	55.0	6.0	100.0	25.7	4.3	96
Western mountain	3.8	11.7	0.7	0.4	2.4	2.0	71.5	7.5	100.0	15.5	0.2	230
Eastern hill	10.6	14.5	5.6	0.2	3.7	3.9	57.0	4.4	100.0	25.1	2.0	416
Central hill	31.5	13.1	1.8	1.3	2.2	1.8	45.4	3.0	100.0	44.5	10.0	495
Western hill	12.2	17.3	6.9	1.3	3.3	3.9	52.0	3.1	100.0	29.5	2.2	604
Mid-western hill	7.0	17.3	0.9	3.0	2.5	2.4	52.9	14.0	100.0	24.3	1.5	367
Far-western hill	6.8	15.8	0.7	2.9	5.1	0.8	62.6	5.2	100.0	22.7	0.8	247
Eastern terai	31.0	23.3	4.2	3.1	2.0	8.0	28.0	0.4	100.0	54.3	9.2	752
Central terai	13.4	19.6	5.6	0.9	2.5	26.8	30.5	0.7	100.0	33.0	4.2	1,126
Western terai	26.2	24.0	0.9	2.6	3.6	22.4	18.4	1.8	100.0	50.2	6.2	402
Mid-western terai	13.2	26.2	5.1	2.8	2.3	14.3	34.4	1.7	100.0	39.4	4.6	301
Far-western terai	23.6	21.3	2.1	7.1	10.2	16.9	16.9	1.8	100.0	44.9	3.4	252
Nother's education												
No education	6.9	12.5	3.7	2.0	2.5	16.9	50.5	5.1	100.0	19.4	1.8	2,550
Primary	11.5	20.5	4.5	1.8	4.5	8.0	46.7	2.6	100.0	31.9	4.1	1,079
Some secondary	27.9	25.5	4.0	3.1	4.5	6.6	27.4	1.1	100.0	53.4	6.3	1,039
SLC and above	47.2	28.8	3.4	1.0	2.0	2.9	14.5	0.1	100.0	76.0	12.9	723
Wealth guintile												
Lowest	3.0	7.7	2.8	1.7	3.0	5.9	67.1	8.8	100.0	10.7	1.0	1,390
Second	7.1	16.6	4.7	2.6	3.7	16.5	46.5	2.3	100.0	23.7	0.8	1,182
Middle	14.2	21.8	5.5	2.2	4.0	16.6	34.9	0.9	100.0	35.9	4.6	1,133
Fourth	26.6	26.4	4.7	2.0	2.5	12.1	24.9	0.8	100.0	53.0	7.1	938
Highest	52.8	28.7	1.0	1.7	2.5	3.8	9.2	0.4	100.0	81.5	14.1	748
Total	17.3	18.8	3.9	2.0	3.2	11.3	40.4	3.1	100.0	36.0	4.6	5,391

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. AHW = auxiliary health worker; MCHW = maternal and child health worker; VHW = village health worker; FCHV = female community health volunteer; SLC = School Leaving Certificate

<sup>1</sup> Skilled provider includes doctor, nurse, and midwife.

There is a strong relationship between mother's education and delivery by an SBA. Births to highly educated women (SLC or higher) are nearly four times (76 percent) as likely as births to women with no education (19 percent) to receive assistance from an SBA. Similarly, assistance during delivery by an SBA varies by women's economic status: births to women in the highest wealth quintile are much more likely to be assisted by an SBA (82 percent) than births to women in the lowest wealth quintile (11 percent).

Table 9.7 also shows that 5 percent of births are delivered by cesarean section. Delivery by cesarean section is highest among births to highly educated mothers (13 percent), births to mothers in the highest wealth quintile (14 percent), urban births (15 percent), and first births (7 percent). Among births delivered by cesarean section, 12 percent were planned, while the rest was carried out due to complications at delivery (data not shown).

The percentage of births assisted at delivery by an SBA has almost doubled in the last five years (from 19 percent in 2006 to 36 percent in 2011), while the percentage of births assisted by relatives and others has declined (from 50 percent to 40 percent). Also noteworthy is the fact that delivery assistance by an SBA in rural areas has more than doubled in the last five years, from 14 percent to 32 percent.

## 9.5.1 Care and Support during Delivery

The government of Nepal has implemented various strategies to reduce maternal deaths. One of the primary causes of maternal deaths in Nepal is postpartum hemorrhage (PPH). The 2008-2009 Maternal Mortality Survey indicated that 24 percent of maternal deaths were due to postpartum hemorrhage (however, this was a reduction from 41 percent in 1998) (Suvedi et al., 2009). WHO reports that postpartum hemorrhage is responsible for one quarter of maternal mortality worldwide (Mathai et al., 2007). In response to the high incidence of postpartum hemorrhage, the government of Nepal has initiated use of prophylactic oxytocin immediately after birth under the Active Management of Third Stage of Labor (AMTSL) intervention program. The intramuscular oxytocin dose of 10 milligrams soon after delivery prevents postpartum hemorrhage (Ojha and Malla, 2007).

Similarly, a national free delivery policy was launched in Nepal in January 2009 to address the financial barriers women face in accessing health facilities for delivery and to encourage institutional deliveries. This is known as the *Aama* (mother) program. It covers all of the districts in the country. Similarly, a cash incentive scheme, the Safe Delivery Incentive Program (SDIP), was initiated in 2005. This program provides cash payments (differing by ecological region) to women who deliver in health facilities and incentive payments for health workers who undertake home deliveries (Witter et al., 2011).

To determine the effectiveness of the government's program promoting maternal health, the 2011 NDHS asked women a series of questions on care and support during delivery with respect to their last birth in the two years before the survey. Mothers were asked whether they had received an oxytocin injection immediately after delivery from health personnel (doctor, nurse, midwife, health assistant, AHW, MCHW, or VHW). Information was also collected on receipt of cash incentives for women's most recent birth at any health facility (government, nongovernment, or private), cash payments to the health facility where the delivery took place, and the time taken to reach the health facility for delivery.

Table 9.8 shows that 63 percent of mothers who had a live birth in the two years preceding the survey and were assisted by health personnel received an oxytocin injection immediately after delivery. Urban women and those living in the terai were more likely to have received an oxytocin injection for their most recent delivery than rural mothers and those from the other ecological zones. Women with a primary education and those in the lowest wealth quintile were least likely to have received an oxytocin injection.

As part of the government strategy to promote institutional delivery, women who deliver in any health facility are provided cash incentives to defray the cost of transportation to the facility. In addition, delivery in a health facility is provided free of cost to mothers. The findings show that 71 percent of mothers received payment to defray the cost of transportation to a health facility. Seventy-three percent of rural women received transportation incentives, compared to 60 percent of urban women. Similarly, women living in the mountain zone and the Mid-western region were more likely to have received cash incentives than women in other areas. These incentives may have contributed to the doubling of institutional deliveries in the last five years.

Forty percent of women reported paying cash to the health facility where they delivered. Urban women and women in the terai were more likely to pay cash for delivery services than rural women and those living in the mountain zone. As expected, women at higher levels of education and wealth were less likely to use free services provided by the government.

#### Table 9.8 Care and support during delivery

Among women with a live birth in the two years preceding the survey who were assisted at delivery by a health professional, percentage who received an injection of oxytocin immediately after delivery of the last live birth; and among women with a live birth in the two years preceding the survey delivered in a health facility, the percentage who received a cash incentive for transportation, the percentage who paid cash to the health facility, and the percent distribution of women by time taken to reach the health facility for delivery, according to background characteristics, Nepal 2011

	Received an injection	Number of women assisted by	Received cash	Deidereit		Time to	o reach healt	h facility		Number women w
Background characteristic	of oxytocin after delivery	health personnel at delivery	incentive for transpor- tation	Paid cash to health facility	<30 minutes	30-60 minutes	60+ minutes	Don't know	Total	delivered a health facility
Nother's age at birth										
<20	60.5	223	80.1	34.7	28.1	27.0	44.8	0.0	100.0	199
20-34	63.8	744	68.5	41.3	28.8	27.3	43.5	0.3	100.0	652
35-49	(70.3)	38	(64.3)	(39.5)	(10.5)	(28.9)	(60.6)	(0.0)	100.0	37
irth order										
1	58.6	495	76.0	39.8	26.6	28.8	44.3	0.4	100.0	454
2-3	69.0	410	62.6	43.8	29.5	25.8	44.5	0.2	100.0	349
4-5	59.2	77	75.2	20.4	24.7	32.3	43.0	0.0	100.0	65
6+	*	23	*	*	*	*	*	*	100.0	20
ntenatal care visits										
None	(60.6)	43	*	*	*	*	*	*	100.0	34
1-3	63.5	228	78.1	33.0	26.4	26.6	47.1	0.0	100.0	187
4+	63.4	734	68.7	40.5	29.0	28.2	42.5	0.3	100.0	666
Residence										
Urban	69.1	155	59.8	51.7	43.4	33.4	22.7	0.4	100.0	150
Rural	62.3	850	73.2	37.3	24.8	26.1	48.9	0.2	100.0	738
cological zone										
Mountain	60.6	53	81.2	17.2	28.7	21.6	49.8	0.0	100.0	46
Hill	60.5	327	75.1	37.0	28.7	27.4	43.3	0.5	100.0	298
Terai	65.0	624	67.8	43.2	27.4	27.8	44.7	0.1	100.0	544
evelopment region										
Eastern	74.0	276	71.6	39.4	27.4	24.5	48.2	0.0	100.0	241
Central	57.2	314	60.1	57.8	21.5	30.2	47.5	0.8	100.0	274
Western	55.3	195	76.6	36.6	33.2	24.4	42.3	0.0	100.0	177
Mid-western	71.0	120	83.9	14.4	33.8	29.5	36.7	0.0	100.0	110
Far-western	59.6	100	75.6	22.1	31.6	29.5	38.9	0.0	100.0	86
ubregion			<i>(</i> )	<i></i>	<i>(</i> <b></b> )		()	()		
Eastern mountain	66.5	15	(91.5)	(13.4)	(28.6)	(11.6)	(59.8)	(0.0)	100.0	12
Central mountain	37.7	15	(70.3)	(39.8)	(22.9)	(33.1)	(44.0)	(0.0)	100.0	12
Western mountain	(71.7)	23 58	(81.8)	(6.8)	(31.8)	(20.5)	(47.7)	(0.0)	100.0	22 53
Eastern hill Central hill	64.5 71.1	99	86.6 58.5	30.1 54.3	19.8 32.2	25.0 39.7	55.2 26.4	0.0 1.7	100.0 100.0	53 94
Western hill	42.6	97	79.8	39.8	36.1	15.9	48.0	0.0	100.0	94 83
Mid-western hill	65.5	46	82.0	14.7	26.7	29.6	43.7	0.0	100.0	41
Far-western hill	68.6	28	85.4	14.6	13.8	21.4	64.8	0.0	100.0	26
Eastern terai	77.2	204	65.8	44.0	29.6	25.1	45.3	0.0	100.0	176
Central terai	51.8	201	60.3	61.1	15.4	24.7	59.6	0.4	100.0	168
Western terai	67.9	98	73.7	33.7	30.6	32.1	37.3	0.0	100.0	93
Mid-western terai	76.0	61	83.0	16.9	42.0	30.8	27.2	0.0	100.0	57
Far-western terai	52.2	61	72.1	27.9	37.8	36.3	25.9	0.0	100.0	49
Iother's education										
No education	61.7	290	70.8	39.7	20.4	27.7	51.1	0.7	100.0	233
Primary	56.7	167	68.3	38.2	23.4	33.7	42.9	0.0	100.0	154
Some secondary	66.4	271	80.0	33.6	31.3	23.1	45.3	0.3	100.0	242
SLC and above	66.1	276	64.1	46.5	34.2	27.2	38.6	0.0	100.0	258
Vealth quintile										
Lowest	46.6	89	87.6	28.0	16.6	20.9	62.5	0.0	100.0	74
Second	62.3	173	78.6	27.1	19.0	26.1	54.9	0.0	100.0	145
Middle	61.4	250	78.4	37.9	28.1	21.8	50.1	0.0	100.0	210
Fourth	67.7	245	72.4	36.0	27.0	36.7	35.3	1.0	100.0	219
Highest	67.7	248	53.4	56.1	37.5	26.4	36.1	0.0	100.0	241
otal	63.3	1,005	71.0	39.8	27.9	27.3	44.5	0.3	100.0	888

been suppressed. SLC = School Leaving Certificate

The table also describes the time taken for women to reach a health facility for delivery. Twenty-eight percent of women took less than 30 minutes to reach a health facility, 27 percent took 30-60 minutes, and 45 percent took more than one hour. One in two women in the mountains (50 percent) took more than one hour to reach a health facility for delivery. Also, two in five women in the hill zone and terai reported that it took them more than one hour to reach a health facility.

## 9.5.2 Birth Preparedness

In an effort to prevent unnecessary delays related to delivery care, the MOHP has implemented the birth preparedness package, which outlines steps mothers should take to prepare for their birth. Adherence to these guidelines reduces delays in accessing delivery services, which can save lives, especially among women living in rural locations. The guidelines recommend that families save money for emergencies, arrange transportation beforehand based on local conditions, identify persons who can and are eligible to donate blood if required, identify and contact health facilities and health workers who can provide services, and have a clean delivery kit handy (USAID, New ERA, and NFHP, 2010).

Table 9.9 shows that more than one in three women (36 percent) saved money for delivery. Five percent bought a home delivery kit and 2 percent contacted a health worker, which are reductions in comparison to similar data in the 2006 NDHS. More than half of women (56 percent) arranged for food and clothing for the newborn in 2011, in comparison to 26 percent in 2006. Nearly one-third of women said they had not made any preparations at all for the birth of their child. Arrangements for transportation increased from 1 percent in 2006 to 3 percent in 2011.

Table 9.9 Birth preparedness

Percentage of women who had made specific preparations before delivery of the most recent birth in the past five years, according to background characteristics, Nepal 2011

Background characteristic	Saved money	Arranged for transport	Found blood donor	Contacted health worker	Bought clean delivery kit	Arranged for food and clothing	Other	No preparation	Number o women
<b>Residence</b> Urban Rural	51.8 34.0	6.1 3.1	1.3 0.4	2.3 1.6	3.8 4.6	63.3 54.9	1.7 2.2	23.8 36.7	418 3,730
Ecological zone	01.0	0.1	0.1	1.0	1.0	01.0		00.1	0,100
Mountain	29.5	2.0	0.3	0.4	3.5	62.6	0.3	31.8	306
Hill	34.1	2.3	0.4	1.2	4.7	61.3	1.5	31.9	1,669
Terai	38.0	4.4	0.5	2.3	4.5	50.5	2.9	38.6	2,174
Development region									
Eastern	42.8	3.8	0.6	1.8	6.2	62.0	4.7	28.3	999
Central	31.8	2.4	0.4	1.4	1.8	49.7	1.3	42.5	1,293
Western	32.8	3.2	0.0	0.8	2.0	55.0	1.2	37.4	818
Mid-western	30.0	3.0	0.9	0.5	5.0	54.5	1.2	36.3	598
Far-western	45.4	6.3	0.4	5.5	12.5	62.1	2.1	25.6	440
Subregion									
Eastern mountain	40.7	2.3	0.4	0.6	6.5	78.2	0.0	20.4	78
Central mountain	34.7	1.1	0.0	1.1	3.4	61.4	0.0	26.4	72
Western mountain	21.4	2.3	0.3	0.0	2.0	55.3	0.7	40.1	155
Eastern hill Central hill	36.4 43.7	2.1 3.1	0.6 0.6	2.2 1.0	6.7 2.4	68.1 67.6	2.2 1.2	27.4 24.9	331 403
Western hill	43.7 29.3	3.1 1.9	0.8	0.4	2.4	56.7	1.2	24.9 36.9	403
Mid-western hill	29.3 25.7	2.9	0.0	0.4 1.2	2.4 6.2	60.2	1.7	36.9 34.2	466 275
Far-western hill	34.3	2.9	0.8	2.2	10.1	47.9	0.9	38.6	171
Eastern terai	46.7	5.0	0.7	1.8	5.9	56.5	6.8	29.8	589
Central terai	25.7	2.3	0.3	1.6	1.3	39.8	1.4	52.6	818
Western terai	37.9	5.1	0.1	1.4	1.4	52.4	0.5	38.2	330
Mid-western terai	41.5	3.5	1.5	0.0	4.3	51.9	1.2	33.7	238
Far-western terai	59.0	11.5	0.2	10.2	18.6	71.6	3.8	14.0	200
Education									
No education	23.7	1.1	0.1	0.9	2.9	48.5	2.8	45.8	1,822
Primary	36.9	1.8	0.2	1.0	4.1	60.9	3.1	31.1	835
Some secondary	46.2	3.9	0.6	2.5	8.3	58.1	0.9	29.0	866
SLC and above	55.3	11.5	1.6	3.9	4.4	66.4	0.9	19.6	627
Wealth quintile									
Lowest	18.4	0.8	0.2	1.0	2.6	55.3	2.0	40.0	979
Second	34.1	2.1	0.1	1.7	5.3	57.1	2.8	37.7	899
Middle	36.2	3.2	0.2	1.4	4.4	49.0	2.9	41.8	873
Fourth	47.1	3.3	0.6	2.2	7.0	55.9	1.5	29.2	748
Highest	51.0	9.6	1.6	2.6	3.5	63.2	1.2	23.7	649
Total	35.8	3.4	0.4	1.7	4.5	55.7	2.2	35.4	4,148

# 9.6 POSTNATAL CARE

The postpartum period is particularly important for women, as during this period they may develop serious, life-threatening complications after delivery. Evidence has shown that a large proportion of deaths occur during this period, with postpartum hemorrhage being an important cause. A postnatal care visit is an ideal time to educate a new mother on how to care for herself and her newborn Therefore, it is highly recommended that women receive at least three postnatal checkups, the first within 24 hours of delivery, the second on the third day following delivery, and the third on the seventh day after delivery (MOHP, 2011a).

## 9.6.1 Timing of First Postnatal Checkup for the Mother

Table 9.10 shows that in the two years preceding the survey, 45 percent of women received postnatal care for their last birth within the critical first two days following delivery. One in three women received postnatal care within four hours of delivery, 7 percent received care within 4-23 hours, and 4 percent were seen 1-2 days following delivery. Differences by mother's age, birth order, place of residence, wealth quintile, and education are pronounced and are similar to the differences discussed for delivery care. More than one in two (54 percent) women did not receive a checkup within the recommended time.

#### Table 9.10 Timing of first postnatal checkup

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal check-up for the last live birth by time after delivery, and the percentage of women with a live birth in the two years preceding the survey who received a postnatal checkup in the first two days after giving birth, according to background characteristics, Nepal 2011

Background characteristic         Less than 4 hours         4-23 hours           Mother's age at birth <20         37.3         8.0           20-34         33.5         7.4           35-49         28.1         2.5           Birth order         1         45.8         10.7           2-3         31.2         5.5           4-5         20.3         5.3           6+         14.7         3.6           Place of delivery         Heath facility         66.8         14.2           Elsewhere         8.3         1.7         Residence           Urban         55.7         11.1         Rural         31.6         6.8           Ecological zone         Mountain         23.7         5.1         1.11           Rural         30.6         7.4         Western         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Hill         28.1         5.5         5.5         1.4           Hill         28.1         5.5         5.6         3           Terai         39.3         8.7         Central         30.6         7.4           Western				tnatal checku	ip			women with a	
<20         37.3         8.0           20-34         33.5         7.4           35-49         28.1         2.5           Birth order         1         45.8         10.7           2-3         31.2         5.5           4-5         20.3         5.3           6+         14.7         3.6           Place of delivery         Heatth facility         66.8         14.2           Elsewhere         8.3         1.7           Residence         Urban         55.7         11.1           Rural         31.6         6.8           Ecological zone         Mountain         23.7         5.1           Hill         28.1         5.5         5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Mid-western         29.5         6.3         5.2         5.2           Subregion         Eastern mountain         20.7         9.1         Western mountain         20.7         9.1           Western hill         26.4         5.2         2	i 1-2 days		6 days	7-41 days	Don't know/ missing	No postnatal checkup <sup>1</sup>	Total	postnatal checkup in the first two days after birth	Number of women
20-34         33.5         7.4           35-49         28.1         2.5           Birth order         1         45.8         10.7           2-3         31.2         5.5           4-5         20.3         5.3           6+         14.7         3.6           Place of delivery         Health facility         66.8         14.2           Elsewhere         8.3         1.7         Residence           Urban         55.7         11.1         Rural         31.6         6.8           Ecological zone         Mountain         23.7         5.1         1.41           Hill         28.1         5.5         7         1.7           Development region         Eastern         29.5         6.3           Far-western         39.3         8.7         Central         30.6         7.4           Western         35.7         6.3         5.3         Far-western         29.5         6.3           Far-western         29.5         6.3         5.2         Central mountain         20.7         9.1           Western mountain         20.7         9.1         Western hill         25.9         6.4           Mid-weste									
35-49       28.1       2.5         Birth order       1       45.8       10.7         2-3       31.2       5.5         4-5       20.3       5.3         6+       14.7       3.6         Place of delivery       Health facility       66.8       14.2         Health facility       66.8       14.2         Elsewhere       8.3       1.7         Residence       Urban       55.7       11.1         Rural       31.6       6.8         Ecological zone       Mountain       23.7       5.1         Hill       28.1       5.5         Terai       39.3       8.7         Central       30.6       7.4         Western       35.7       6.3         Far-western       29.5       6.3         Far-western       29.5       6.3         Far-western mountain       20.7       9.1         Western mountain       20.7       9.1         Western hill       27.2       3.2         Central mountain       20.7       9.1         Western hill       27.2       3.2         Central hill       30.6       6.2      S	2.7		1.9	0.3	0.0	49.9	100.0	48.0	381
Birth order         45.8         10.7           2-3         31.2         5.5           4-5         20.3         5.3           6+         14.7         3.6           Place of delivery         Health facility         66.8         14.2           Elsewhere         8.3         1.7           Residence         Urban         55.7         11.1           Rural         31.6         6.8           Ecological zone         Mountain         23.7         5.1           Hill         28.1         5.5         5.5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Mid-western         29.5         6.3         5.2         5.2           Subregion         Eastern mountain         20.7         9.1         Western mountain         20.7         9.1           Western hill         26.4         5.2         Central hill         30.7         6.7           Western hill         27.2         3.2         7         7         7           Far-western hill	3.6		0.5	1.3	0.2	53.5	100.0	44.5	1,525
1       45.8       10.7         2-3       31.2       5.5         4-5       20.3       5.3         6+       14.7       3.6         Place of delivery       Health facility       66.8       14.2         Elsewhere       8.3       1.7         Residence       Urban       55.7       11.1         Rural       31.6       6.8         Ecological zone       Mountain       23.7       5.1         Hill       28.1       5.5         Terai       39.7       8.7         Development region       Eastern       39.3       8.7         Central       30.6       7.4       Western       35.7       6.3         Mid-western       29.5       6.3       Far-western       34.9       6.2         Subregion       Eastern mountain       20.7       9.1       Western mountain       23.5       4.5         Eastern hill       26.4       5.2       Central hill       30.2       8.6         Western hill       27.2       3.2       7       8.7         Eastern hill       26.4       5.2       2.6       5.7         Central hill       30.7       6.7	4.5	4.5	0.2	0.0	0.0	64.7	100.0	35.1	125
2-3       31.2       5.5         4-5       20.3       5.3         6+       14.7       3.6         Place of delivery       Health facility       66.8       14.2         Elsewhere       8.3       1.7         Residence       Urban       55.7       11.1         Rural       31.6       6.8         Ecological zone       Mountain       23.7       5.1         Hill       28.1       5.5         Terai       39.7       8.7         Central       30.6       7.4         Western       35.7       6.3         Far-western       34.9       6.2         Subregion       Eastern mountain       26.9       2.6         Central mountain       20.7       9.1       Western hill       25.9       6.4         Mid-western hill       25.9       6.4       4.5       2       2       6.4         Western hill       25.9       6.4       5.2       2       6.4       30.7       6.7         Western hill       25.9       6.4       5.2       2       6.4       30.7       6.7         Western hill       25.9       6.4       5.2 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
4-5       20.3       5.3         6+       14.7       3.6         Place of delivery	4.5		1.0	0.6	0.2	37.1	100.0	61.0	717
6+       14.7       3.6         Place of delivery	3.2		0.9	1.7	0.2	57.3	100.0	40.0	915
Place of delivery         Health facility       66.8       14.2         Elsewhere       8.3       1.7         Residence       Urban       55.7       11.1         Rural       31.6       6.8         Ecological zone       Mountain       23.7       5.1         Hill       28.1       5.5         Terai       39.7       8.7         Development region       Eastern       39.3       8.7         Central       30.6       7.4       Western       35.7       6.3         Mid-western       29.5       6.3       Far-western       34.9       6.2         Subregion       Eastern mountain       26.9       2.6       Central mountain       20.7       9.1         Western hill       26.4       5.2       Central mountain       20.7       9.1         Western hill       25.9       6.4       Mid-western hill       25.9       6.4         Mid-western hill       25.9       6.4       5.2       Central Herai       30.7       6.7         Western hill       25.9       6.4       5.2       Central Herai       30.7       6.7         Western hill       25.9       6.4       5.2	2.3		0.0	0.3	0.0	71.9	100.0	27.9	268
Health facility         66.8         14.2           Elsewhere         8.3         1.7           Residence         11.7           Urban         55.7         11.1           Rural         31.6         6.8           Ecological zone         11.1         11.1           Mountain         23.7         5.1           Hill         28.1         5.5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Mid-western         29.5         6.3         Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1         Western mountain         20.7         9.1           Western mountain         20.7         9.1         Western hill         22.2         8.6           Western hill         26.4         5.2         Central hill         32.2         8.6           Western hill         25.9         6.4         Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5         Eastern terai	1.7	1.7	0.2	0.0	0.0	79.7	100.0	20.1	129
Elsewhere         8.3         1.7           Residence         Urban         55.7         11.1           Rural         31.6         6.8           Ecological zone         Mountain         23.7         5.1           Hill         28.1         5.5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Mid-western         29.5         6.3         Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1         Western mountain         20.7         9.1           Western mountain         20.7         9.1         Western hill         25.9         6.4           Mid-western hill         25.9         6.4         5.2         Central hill         32.2         8.6           Western hill         25.9         6.4         5.2         Central hill         32.2         8.6           Western hill         25.9         6.4         5.2         Central terai         40.7         6.7           Western terai         40.7         6.7									
Residence           Urban         55.7         11.1           Rural         31.6         6.8           Ecological zone	6.3		0.6	0.4	0.2	11.4	100.0	87.3	888
Urban Rural         55.7 31.6         11.1 6.8           Ecological zone Mountain         23.7 5.1         5.1           Hill         28.1         5.5           Terai         39.7         8.7           Development region Eastern         39.3         8.7           Central         30.6         7.4           Western         29.5         6.3           Far-western         34.9         6.2           Subregion Eastern mountain         20.7         9.1           Western mountain         20.7         9.1           Western mountain         20.7         9.1           Western mountain         20.7         9.1           Western mill         26.4         5.2           Central mountain         20.7         9.1           Western mill         25.9         6.4           Mid-western hill         25.9         6.4           Western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western hill         27.2         3.2      Far-western terai         46.5	1.3	1.3	0.9	1.4	0.1	86.2	100.0	11.3	1,143
Rural         31.6         6.8           Ecological zone									
Ecological zone         Mountain         23.7         5.1           Hill         28.1         5.5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4           Western         35.7         6.3           Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         26.9         2.6           Central mountain         20.7         9.1         Western hill         25.5           Eastern hill         26.4         5.2         Central mountain         25.9         6.4           Mid-western hill         25.9         6.4         Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5         Eastern terai         48.2         11.5           Central terai         30.7         6.7         Western terai         30.7         6.7           Western terai         30.7         6.7         Sone secondary         40.7         5.1           Eastern terai         48.2         11.5         Central terai         5.5         5.7	5.6	5.6	1.9	0.9	0.9	23.9	100.0	72.4	189
Mountain         23.7         5.1           Hill         28.1         5.5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Mid-western         29.5         6.3         Far-western         34.9         6.2           Subregion         Eastern mountain         26.9         2.6         Central mountain         20.7         9.1           Western mountain         20.7         9.1         Western thill         25.9         6.4           Mid-western hill         25.9         6.4         Mid-western hill         25.9         6.4           Mid-western hill         27.2         3.2         Far-western hill         29.6         0.5           Eastern terai         48.2         11.5         Central terai         30.7         6.7           Western terai         30.7         6.7         Western terai         40.5         11.2           Education         23.5         5.7         Frarwestern terai         46.5         11.2           Education         23.5         5.7         Primary         31.8	3.3	3.3	0.7	1.0	0.1	56.6	100.0	41.7	1,842
Mountain         23.7         5.1           Hill         28.1         5.5           Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4         Western         35.7         6.3           Mid-western         29.5         6.3         Far-western         34.9         6.2           Subregion         Eastern mountain         26.9         2.6         Central mountain         20.7         9.1           Western mountain         20.7         9.1         Western thill         25.9         6.4           Mid-western hill         25.9         6.4         Mid-western hill         25.9         6.4           Mid-western hill         27.2         3.2         Far-western hill         29.6         0.5           Eastern terai         48.2         11.5         Central terai         30.7         6.7           Western terai         30.7         6.7         Western terai         40.5         11.2           Education         23.5         5.7         Frarwestern terai         46.5         11.2           Education         23.5         5.7         Primary         31.8									
Terai         39.7         8.7           Development region         Eastern         39.3         8.7           Central         30.6         7.4           Western         35.7         6.3           Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1           Western mountain         20.7         9.1         Western mountain         23.5         4.5           Eastern mountain         20.7         9.1         Western hill         26.4         5.2         Central hill         32.2         8.6           Western hill         27.2         3.2         Far-western hill         27.2         3.2         Far-western hill         29.6         0.5         Eastern terai         48.2         11.5         Central terai         30.7         6.7           Western terai         30.7         6.7         Western terai         50.3         6.1           Mid-western terai         30.7         6.7         Western terai         50.3         6.1           Mid-western terai         34.1         11.7         Far-western terai         5.5         7           Primary	2.0	2.0	0.3	2.0	0.0	66.9	100.0	30.7	166
Development region           Eastern         39.3         8.7           Central         30.6         7.4           Western         35.7         6.3           Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1           Western mountain         20.7         9.1         Western mountain         23.5         4.5           Eastern mountain         20.7         9.1         Western mountain         23.5         4.5           Eastern hill         26.4         5.2         Central hill         32.5         6.4           Mid-western hill         27.2         3.2         Far-western hill         29.6         0.5           Eastern terai         48.2         11.5         Central terai         30.7         6.7           Western terai         30.7         6.7         Western terai         50.3         6.1           Mid-western terai         50.3         6.1         11.2         Education           Some secondary         40.7         9.1         31.8         6.2           Some secondary         40.7         9.1         32.6         9.6	3.2	3.2	0.5	0.8	0.4	61.5	100.0	36.7	785
Eastern         39.3         8.7           Central         30.6         7.4           Western         35.7         6.3           Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1           Western mountain         22.2         8.6           Western hill         25.9         6.4           Mid-western hill         25.9         6.4           Mid-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         34.1         11.7           Far-western terai         34.1         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6	3.9	3.9	1.0	1.0	0.0	45.6	100.0	52.4	1,079
Central         30.6         7.4           Western         35.7         6.3           Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         20.5         4.9           Eastern mountain         20.7         9.1         Western mountain         23.5         4.5           Eastern mountain         23.5         4.5         Eastern hill         26.4         5.2           Central hill         22.2         8.6         Western hill         27.2         3.2           Far-western hill         29.6         0.5         Eastern terai         48.2         11.5           Central terai         30.7         6.7         Western terai         30.7         6.7           Western terai         30.7         6.7         Western terai         46.5         11.2           Education         23.5         5.7         Primary         31.8         6.2           Some secondary         40.7         9.1         SLC and above         53.6         9.6           Weatth quintile         Lowest         12.4         2.5         12.4         2.5									
Western         35.7         6.3           Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1           Western mountain         20.7         9.1         Western mountain         23.5         4.5           Eastern hill         26.4         5.2         Central mountain         22.8         8.6           Western hill         25.9         6.4         Mid-western hill         27.2         3.2           Far-western hill         27.2         3.2         Far-western hill         29.6         0.5           Eastern terai         48.2         11.5         Central terai         30.7         6.7           Western terai         30.7         6.7         Western terai         50.3         6.1           Mid-western terai         50.3         6.1         11.2         Education         11.2           Education         23.5         5.7         Primary         31.8         6.2         Some secondary         40.7         9.1           Suc and above         53.6         9.6         9.6         Western terai         40.7         9.1	2.9	2.9	1.1	0.6	0.1	47.4	100.0	50.9	468
Mid-western         29.5         6.3           Far-western         34.9         6.2           Subregion         Eastern mountain         20.7         9.1           Western mountain         20.7         9.1         Western mountain         23.5         4.5           Eastern mountain         26.4         5.2         Central hill         26.4         5.2           Central hill         25.9         6.4         Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5         Eastern terai         48.2         11.5           Central terai         30.7         6.7         Western terai         50.3         6.1           Mid-western terai         34.1         11.7         Far-western terai         34.1         11.7           Far-western terai         34.1         11.7         Far-western terai         36.1         Mid-western terai           Mid-western terai         34.1         11.7         Far-western terai         34.1         11.2           Education         23.5         5.7         Primary         31.8         6.2         Some secondary         40.7         9.1         SLC and above         53.6         9.6         Weatth quintile         Lowes	4.0	4.0	0.7	1.3	0.4	55.8	100.0	41.9	658
Far-western         34.9         6.2           Subregion         Eastern mountain         26.9         2.6           Central mountain         20.7         9.1           Western mountain         23.5         4.5           Eastern hill         26.4         5.2           Central hill         22.2         8.6           Western hill         27.2         3.2           Far-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         50.3         5.1           Eastern terai         30.7         6.7           Western terai         30.7         6.7           Western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Weath quintile <th< td=""><td>2.3</td><td>2.3</td><td>0.5</td><td>1.0</td><td>0.0</td><td>54.3</td><td>100.0</td><td>44.2</td><td>398</td></th<>	2.3	2.3	0.5	1.0	0.0	54.3	100.0	44.2	398
Subregion         Eastern mountain         26.9         2.6           Central mountain         20.7         9.1           Western mountain         23.5         4.5           Eastern hill         26.4         5.2           Central hill         32.2         8.6           Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         46.5         11.2           Education         No education         23.5         5.7           Primary         31.8         6.2         Some secondary         40.7         9.1           SLC and above         53.6         9.6         Weath quintile         Lowest         12.4         2.5	3.4	3.4	1.2	0.8	0.0	58.8	100.0	39.2	291
Eastern mountain         26.9         2.6           Central mountain         20.7         9.1           Western mountain         23.5         4.5           Eastern hill         26.4         5.2           Central hill         32.2         8.6           Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Weatth quintile         Lowest         12.4         2.5	5.5	5.5	0.4	1.4	0.1	51.6	100.0	46.5	215
Central mountain         20.7         9.1           Western mountain         23.5         4.5           Eastern hill         26.4         5.2           Central hill         32.2         8.6           Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Weatth quintile         Lowest         12.4         2.5									
Western mountain         23.5         4.5           Eastern hill         26.4         5.2           Central hill         32.2         8.6           Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         34.1         11.7           Far-western terai         34.1         11.7           Far-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           No education         23.5         5.7           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	1.8		0.0	2.6	0.0	66.0	100.0	31.3	39
Eastern hill         26.4         5.2           Central hill         32.2         8.6           Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         27.2         3.2           Far-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Weath quintile         Lowest         12.4         2.5	4.6		0.0	2.3	0.0	63.3	100.0	34.4	36
Central hill         32.2         8.6           Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	1.1		0.6	1.7	0.0	68.7	100.0	29.1	91
Western hill         25.9         6.4           Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Weath quintile         Lowest         12.4         2.5	4.3		0.0	0.0	0.2	63.9	100.0	35.8	152
Mid-western hill         27.2         3.2           Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	5.3		0.6	0.0	1.5	51.7	100.0	46.1	177
Far-western hill         29.6         0.5           Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         34.1         11.7           Far-western terai         34.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	2.2		0.2	1.6	0.0	63.7	100.0	34.5	240
Eastern terai         48.2         11.5           Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	2.8		2.0	0.6	0.0	64.2	100.0	33.2	131
Central terai         30.7         6.7           Western terai         50.3         6.1           Mid-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	0.0		0.0	2.1	0.0	67.9	100.0	30.1	85
Western terai         50.3         6.1           Mid-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	2.3		1.9	0.6	0.0	35.6	100.0	61.9	277
Mid-western terai         34.1         11.7           Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	3.4		0.7	1.7	0.0	56.8	100.0	40.8	445
Far-western terai         46.5         11.2           Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	2.4 5.2		1.0 0.8	0.0 0.0	0.0 0.0	40.2 48.2	100.0	58.9	159
Education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	5.2 12.9		0.8	0.0 1.4	0.0	48.2 27.5	100.0 100.0	51.0 70.6	111 88
No education         23.5         5.7           Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	-	-	-			-			
Primary         31.8         6.2           Some secondary         40.7         9.1           SLC and above         53.6         9.6           Wealth quintile         Lowest         12.4         2.5	1.9	19	0.5	0.8	0.2	67.3	100.0	31.1	862
Some secondary40.79.1SLC and above53.69.6Wealth quintile2.5	3.2		0.5	0.8	0.2	57.5	100.0	41.2	392
SLC and above 53.6 9.6 Wealth quintile Lowest 12.4 2.5	3.z 4.1		1.2	1.3	0.1	43.7	100.0	53.8	429
Lowest 12.4 2.5	6.9		0.9	1.5	0.4	27.1	100.0	70.1	347
Lowest 12.4 2.5									
	1.7	1.7	1.0	1.3	0.0	81.0	100.0	16.7	489
	2.1		0.2	0.4	0.0	63.7	100.0	35.7	428
Middle 36.5 8.0	3.7		0.5	0.7	0.0	50.5	100.0	48.2	469
Fourth 45.8 9.3	3.9		1.6	2.1	0.4	36.7	100.0	59.1	370
Highest 59.4 14.9	7.7		0.6	0.2	0.6	16.5	100.0	82.1	274
Total 15-49 33.9 7.2	3.5	3.5	0.8	1.0	0.2	53.5	100.0	44.5	2,030

SLC = School Leaving Certificate

## 9.6.2 Provider of First Postnatal Checkup for Mother

The skill level of the provider who performs the first postnatal checkup also has important implications for maternal and neonatal health. Table 9.11 shows that 23 percent of women received postnatal care from a nurse or midwife and 16 percent from a doctor. Six percent of women received postnatal care from a health assistant, AHW, MCHW, VHW, or FCHV. Mothers of first-order births, those who delivered in a health facility, those with an SLC and higher education, those from the wealthiest households, and those in urban areas were more likely to have received postnatal care from an SBA than other mothers. Postnatal care from an SBA was highest in the terai, in the Eastern region, and in the Eastern terai subregion.

	Type	of health provid	ler of mother's f	irst postnatal ch	heckup	No postnatal		
– Background characteristic	Doctor	Nurse/ midwife	Health assistant/ AHW	MCHW/ VHW	FCHV	checkup in the first two days after birth	Total	Number of women
Mother's age at birth	200101	Induite	74100		10111	birdi	Total	women
<20	10.7	30.9	4.6	1.4	0.4	52.0	100.0	381
20-34 35-49	17.7 14.1	21.2 16.5	2.3 2.6	1.8 1.5	1.5 0.4	55.5 64.9	100.0 100.0	1,525 125
	14.1	10.5	2.0	1.5	0.4	04.9	100.0	125
Birth order	20.7	36.1	2.9	0.7	0.6	39.0	100.0	717
2-3	16.1	17.0	2.5	2.7	1.6	60.0	100.0	915
4-5	8.9	12.6	2.1	2.0	2.3	72.1	100.0	268
6+	6.3	9.6	4.2	0.0	0.0	79.9	100.0	129
Place of delivery Health facility	35.8	49.1	1.1	1.2	0.1	12.7	100.0	888
Elsewhere	35.8 0.9	49.1 2.2	4.0	2.1	2.1	88.7	100.0	1,143
Residence								, -
Urban	39.9	30.0	1.8	0.1	0.5	27.6	100.0	189
Rural	13.7	22.0	2.8	1.9	1.3	58.3	100.0	1,842
Ecological zone								
Mountain	5.4	19.4	2.6 2.0	1.6	1.8	69.3	100.0	166
Hill Terai	13.2 20.0	19.4 25.6	3.2	1.4 2.0	0.7 1.5	63.3 47.6	100.0 100.0	785 1,079
Development region								
Eastern	18.2	26.3	3.7	2.3	0.3	49.1	100.0	468
Central	21.4	16.5	3.0	1.0	0.0	58.1	100.0	658
Western Mid-western	14.4 10.2	24.7 23.0	2.9 1.1	1.3 2.5	1.1 2.4	55.8 60.8	100.0 100.0	398 291
Far-western	7.1	29.9	1.4	2.7	5.5	53.5	100.0	215
Subregion								
Eastern mountain	6.3	16.2	5.3	3.5	0.0	68.7	100.0	39
Central mountain Western mountain	13.7 1.7	13.9 22.9	3.4 1.1	3.4 0.0	0.0 3.4	65.6 70.9	100.0 100.0	36 91
Eastern hill	7.8	24.0	3.4	0.0	0.7	64.2	100.0	152
Central hill	33.8	11.7	0.6	0.0	0.0	53.9	100.0	177
Western hill Mid-western hill	8.7 6.0	20.6 20.4	2.8 1.2	1.6 4.9	0.8 0.6	65.5 66.8	100.0 100.0	240 131
Far-western hill	3.3	20.4	1.4	4.9 0.9	2.1	69.9	100.0	85
Eastern terai	25.5	29.1	3.7	3.4	0.2	38.1	100.0	277
Central terai	17.1	18.7	4.0	1.1	0.0	59.2	100.0	445
Western terai Mid-western terai	22.9 18.7	30.8 26.8	3.0 1.0	0.7 0.8	1.5 3.8	41.1 49.0	100.0 100.0	159 111
Far-western terai	13.7	39.5	1.4	5.6	10.4	29.4	100.0	88
Education								
No education	9.1	16.0	3.0	2.1	1.0	68.9	100.0	862
Primary Some secondary	11.9 18.4	20.3 30.5	4.5 1.5	1.9 2.2	2.4 1.3	58.8 46.2	100.0 100.0	392 429
SLC and above	35.6	32.5	1.6	0.1	0.4	29.9	100.0	429 347
Vealth quintile								
Lowest	2.8	9.6	2.5	0.7	1.1	83.3	100.0	489
Second	6.9	21.5	3.3	1.7	2.3	64.3	100.0	428
Middle Fourth	14.0 25.2	26.2 30.1	3.4 2.0	3.8 1.1	0.8 0.7	51.8 40.9	100.0 100.0	469 370
Highest	46.0	32.2	2.0	0.8	1.1	17.9	100.0	274
Fotal	16.2	22.7	2.7	1.7	1.2	55.5	100.0	2.030

# 9.7 NEWBORN CARE

Newborn care is essential to reduce neonatal problems and death. To identify, manage, and prevent complications, the government of Nepal recommends at least three postnatal checkups for the newborn within seven days of delivery, which is considered a critical time period for neonates and mothers. Table 9.12 shows the percent distribution of last births in the two years preceding the survey by timing of the first postnatal

checkup after birth, along with the percentage of births with a postnatal checkup in the first two days after birth, according to background characteristics.

Thirty percent of newborns were taken for their first postnatal checkup within the critical first two days after birth. One in four births had a postnatal checkup within three hours after birth (23 percent). Twenty-eight percent of births had a postnatal visit within 24 hours after birth.

#### Table 9.12 Timing of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by time after birth of first postnatal checkup, and the percentage of births with a postnatal checkup in the first two days after birth, according to background characteristics, Nepal 2011

	-	īme after bi	rth of newborr	n's first nost	natal checku	n			Percentage of births with a postnatal	
Background characteristic	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know/ missing	No postnatal checkup <sup>1</sup>	Total	checkup in the first two days after birth	Number of births
Mother's age at birth										
<20 20-34	11.6 11.6	13.0 11.9	5.5 4.9	3.1 2.1	2.2 1.9	0.0 0.0	64.5 67.7	100.0 100.0	33.2 30.5	381 1,525
35-49	3.6	8.3	2.1	1.9	0.0	0.6	83.5	100.0	15.9	125
Birth order	45 7	10.0	<u> </u>	0.0	0.5	0.0	55.0	100.0	40.0	747
1 2-3	15.7 10.4	16.9 10.5	6.9 4.3	2.6 2.8	2.5 1.6	0.0 0.0	55.3 70.3	100.0 100.0	42.2 28.0	717 915
4-5	5.2	6.9	2.1	1.0	1.5	0.0	83.2	100.0	15.2	268
6+	2.0	3.6	2.5	0.0	0.0	0.6	91.3	100.0	8.1	129
Place of delivery										
Health facility	21.8	23.0	8.5	3.1	1.8	0.0	41.7	100.0	56.5	888
Elsewhere	2.7	3.2	1.9	1.7	1.8	0.1	88.6	100.0	9.6	1,143
Residence Urban	17.9	21.5	6.9	3.4	2.7	0.2	47.4	100.0	49.7	189
Rural	10.4	10.9	4.6	2.2	1.7	0.2	70.2	100.0	28.1	1,842
Ecological zone										
Mountain	11.0	6.1	2.9	2.2	2.7	0.0	75.1	100.0	22.2	166
Hill	10.0	10.5	4.0	1.9	2.1	0.1	71.4	100.0	26.4	785
Terai	11.8	13.7	5.7	2.6	1.5	0.0	64.5	100.0	33.9	1,079
Development region Eastern	7.7	13.7	5.3	2.0	1.4	0.1	69.9	100.0	28.7	468
Central	9.1	12.3	4.5	0.8	1.4	0.0	71.9	100.0	26.7	658
Western	14.0	11.5	4.7	2.9	1.8	0.0	65.1	100.0	33.1	398
Mid-western	15.1	10.4	4.1	3.8	1.8	0.3	64.5	100.0	33.4	291
Far-western	13.5	9.3	6.1	4.3	4.1	0.0	62.7	100.0	33.2	215
Subregion									o	
Eastern mountain	13.4	6.3	1.8	0.0	2.6	0.0	75.9	100.0	21.5	39
Central mountain	6.8	5.7 6.1	4.6 2.8	5.7	1.1 3.4	0.0 0.0	76.1 74.3	100.0 100.0	22.8 22.3	36 91
Western mountain Eastern hill	11.7 2.9	6.1 10.3	2.8 2.9	1.7 0.9	3.4 2.0	0.0	74.3 80.8	100.0	22.3 17.0	91 152
Central hill	2.9 8.5	16.0	2.9 7.3	0.9 1.9	2.0	0.2	64.0	100.0	33.8	152
Western hill	7.4	10.0	3.8	3.4	1.4	0.0	73.6	100.0	25.0	240
Mid-western hill	18.6	7.1	3.0	1.4	1.2	0.6	68.0	100.0	30.1	131
Far-western hill	19.9	5.1	0.9	0.0	5.1	0.0	68.9	100.0	26.0	85
Eastern terai	9.5	16.6	7.1	2.9	0.8	0.0	63.0	100.0	36.1	277
Central terai	9.5	11.4	3.3	0.0	1.1	0.0	74.6	100.0	24.2	445
Western terai	23.9	13.0	6.1	2.2	2.4	0.0	52.2	100.0	45.3	159
Mid-western terai Far-western terai	11.7 9.2	15.5 15.4	7.1 11.2	7.3 10.1	1.5 3.9	0.0 0.0	56.8 50.1	100.0 100.0	41.6 45.9	111 88
Mother's education	5.2	10.4	11.4	10.1	0.0	0.0	50.1	100.0	-10.0	00
No education	6.3	7.5	3.3	1.5	2.0	0.1	79.3	100.0	18.5	862
Primary	9.9	12.6	4.9	1.5	0.7	0.0	70.3	100.0	29.0	392
Some secondary	13.8	14.1	5.5	3.8	2.2	0.0	60.6	100.0	37.2	429
SLC and above	21.0	19.0	7.7	3.5	2.1	0.1	46.6	100.0	51.1	347
Wealth quintile										
Lowest	5.4	4.1	1.1	0.8	1.7	0.0	86.8	100.0	11.5	489
Second	8.9	8.1	4.1	3.2	1.9	0.2	73.7	100.0	24.3	428
Middle	10.7	14.0	4.6	1.7	1.2	0.0	67.8	100.0	31.0	469
Fourth	14.0	16.9	7.2	2.7	3.3	0.0	55.8	100.0	40.9	370
Highest	21.3	20.9	9.7	4.1	1.1	0.1	42.7	100.0	56.1	274
Total	11.1	11.9	4.8	2.3	1.8	0.1	68.0	100.0	30.1	2,030

SLC = School Leaving Certificate

The proportion of postnatal checkups within the first two days of birth is higher among births to mothers with an SLC and above (51 percent) than among births to mothers with no education (19 percent). Similarly, the proportion is higher among births to women less than age 20, first births, and births that took place in a health facility than among births in other categories.

The majority of newborns (68 percent) did not receive a postnatal checkup. Newborns delivered outside of a health facility were less likely to receive a postnatal checkup within the first week after birth (11 percent) than newborns delivered in a health facility (58 percent). Similarly, postnatal checkups were less likely among births to mothers age 35-49, births of order six and over, rural births, and births in the Central region than among births in the other categories.

## 9.7.1 Provider of First Postnatal Checkup for the Newborn

Table 9.13 presents the percent distribution of last births in the two years preceding the survey by type of provider of newborn care during the first two days after delivery, according to background characteristics.

The findings show that 25 percent of newborns received postnatal care in the two days following birth from a doctor, nurse, or midwife. An additional 4 percent of newborns received care from a health assistant, AHW, MCHW, or VHW. About 2 percent received care from an FCHV. The distribution of newborns who received care from an SBA by background characteristics is similar to the pattern described for providers of mothers' postnatal checkups.

Table 9.13 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by type of provider of the newborn's first postnatal health check during the two days after the last live birth, according to background characteristics, Nepal 2011

	Type of hea	alth provide	of newborn's	s first postna	tal checkup	No postnatal checkup in		
Background characteristic	Doctor	Nurse/ midwife	Health assistant/ AHW	MCHW/ VHW	FCHV	the first two days after birth	Total	Number of births
Mother's age at birth <20	7.0	19.1	4.7	1.7	0.8	66.8	100.0	381
20-34 35-49	11.3 2.3	14.1 9.3	1.7 2.3	1.5 1.5	1.9 0.4	69.5 84.1	100.0 100.0 100.0	1,525 125
Birth order	12.9	24.8	3.0	0.7	0.7	57.8	100.0	717
2-3 4-5 6+	10.7 2.7 3.2	10.5 7.8 2.7	1.8 1.9 2.2	2.7 0.4 0.0	2.2 2.3 0.0	72.0 84.8 91.9	100.0 100.0 100.0	915 268 129
Place of delivery Health facility Elsewhere	21.9 0.7	32.1 1.3	1.4 2.9	1.1 1.8	0.0 2.8	43.5 90.4	100.0 100.0	888 1,143
<b>Residence</b> Urban Rural	27.9 8.1	20.3 14.2	1.0 2.4	0.4 1.6	0.0 1.7	50.3 71.9	100.0 100.0	189 1,842
Ecological zone Mountain Hill Terai	2.9 9.5 11.4	14.8 12.6 16.3	1.0 1.7 2.9	1.3 1.6 1.5	2.1 1.0 1.9	77.8 73.6 66.1	100.0 100.0 100.0	166 785 1,079
Development region Eastern Central Western Mid-western Far-western	10.3 11.1 12.5 7.3 4.7	14.4 11.8 14.7 17.0 21.2	1.4 3.2 2.9 1.4 1.4	2.4 0.5 1.5 2.5 1.5	0.2 0.0 1.6 5.2 4.4	71.3 73.3 66.9 66.6 66.8	100.0 100.0 100.0 100.0 100.0	468 658 398 291 215
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	3.7 8.0 0.6 3.6 23.2 7.6 6.0 2.3 14.9 6.6 19.8 12.0 8.7	12.5 12.5 16.8 12.1 9.9 10.0 17.4 18.8 16.0 12.5 21.8 16.5 25.8	1.8 0.0 1.1 0.7 0.6 3.4 1.2 1.4 1.7 4.5 2.2 1.8 1.4	3.5 2.3 0.0 0.0 2.4 4.9 0.7 3.5 0.6 0.0 0.8 3.1	0.0 0.0 3.9 0.7 0.0 1.6 2.8 0.0 0.0 1.5 10.7 7.0	78.5 77.2 77.7 83.0 66.2 75.0 69.9 74.0 63.9 75.8 54.7 58.4 54.1	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	39 36 91 152 177 240 131 85 277 445 159 111 88
Mother's education No education Primary Some secondary SLC and above	4.3 5.5 12.6 25.9	8.7 15.3 20.0 22.4	2.6 2.9 1.5 1.8	1.4 2.1 1.7 0.8	1.5 3.1 1.3 0.2	81.5 71.0 62.8 48.9	100.0 100.0 100.0 100.0	862 392 429 347
Wealth quintile Lowest Second Middle Fourth Highest	0.8 3.8 8.4 16.0 30.4	6.3 13.3 14.4 21.4 23.4	2.2 1.9 3.6 1.9 1.1	0.8 1.2 3.4 0.9 1.0	1.3 4.0 1.2 0.8 0.0	88.5 75.7 69.0 59.1 43.9	100.0 100.0 100.0 100.0 100.0	489 428 469 370 274
Total	10.0	14.7	2.3	1.5	1.6	69.9	100.0	2,030

## 9.7.2 Newborn Care Practices

The MOHP has developed a series of recommendations for newborn care that focus on use of safe delivery kits, cord care, prevention and management of hypothermia, drying and bathing the newborn, and other health care services. As of 2011, the Community-Based Newborn Care Program (CB-NCP) in Nepal has been implemented in 15 districts. Based on the National Neonatal Health Strategy, the CB-NCP recommends the following practices to promote newborn care: (1) wiping the newborn with a soft, dry cloth immediately after birth; (2) putting the newborn on the mother's chest and initiating skin-to-skin contact; (3) providing advice on early (within the first hour) initiation of breastfeeding and exclusive breastfeeding for up to six months; (4) not applying anything on the cord stump; and (5) bathing the newborn only after 24 hours post-birth (Save the Children, 2009). A series of questions were asked of women who, for their last birth in the two years preceding the survey, gave birth outside an institutional setting.

#### Table 9.14 Use of clean home delivery kits and other instruments to cut the umbilical cord

Percent distribution of non-institutional last live births in the two years preceding the survey, by type of instrument used to cut the umbilical cord, and percentage who had something placed on stump after the umbilical cord was cut, according to background characteristics, Nepal 2011

				Instrur	ment used to c	ut the umbilic	al cord				Placed something	
Background characteristic	Instruments from a clean home delivery kit	New/boiled blade	Used blade	Knife	Hasiya (sickle)	Khukuri (curved knife)	Scissors	Other	Don't know	Total	on stump after cutting umbilical cord	Number births
Residence												
Urban	19.0	70.8	1.2	0.0	1.4	0.7	0.7	2.9	3.2	100.0	46.5	39
Rural	13.9	67.9	3.7	0.4	11.1	0.4	0.9	1.3	0.3	100.0	41.0	1,103
Ecological zone												
Mountain	10.2	53.8	4.4	2.3	25.0	1.8	1.3	0.9	0.3	100.0	31.7	120
Hill	15.3	57.2	4.2	0.4	18.6	0.4	0.8	2.6	0.5	100.0	29.3	487
Terai	13.8	81.1	2.9	0.0	0.5	0.0	1.0	0.4	0.3	100.0	54.1	536
Development region												
Eastern	15.7	69.1	5.5	1.1	1.6	1.4	0.6	4.6	0.5	100.0	41.3	227
Central	8.6	79.1	3.8	0.2	5.8	0.1	1.6	0.7	0.1	100.0	49.1	384
Western	14.1	72.6	0.9	0.0	9.8	0.0	0.9	0.9	0.9	100.0	32.7	222
Mid-western	14.1	50.3	5.4	0.7	27.7	0.3	0.6	0.4	0.6	100.0	46.7	181
Far-western	27.5	50.4	2.1	0.0	19.8	0.0	0.0	0.0	0.2	100.0	24.7	129
Subregion												
Eastern mountain	10.8	65.7	3.8	5.0	5.4	4.2	1.3	3.8	0.0	100.0	38.2	27
Central mountain	15.5	47.8	5.2	3.4	18.9	2.4	5.2	0.0	1.7	100.0	17.9	24
Western mountain	8.1	51.1	4.4	0.7	34.8	0.7	0.0	0.0	0.0	100.0	34.1	69
Eastern hill	13.8	62.4	9.3	1.0	2.1	2.1	1.0	7.2	1.0	100.0	24.8	99
Central hill	11.0	60.7	3.8	0.0	21.1	0.0	0.0	3.3	0.0	100.0	29.1	83
Western hill	16.9	65.2	1.2	0.0	13.9	0.0	1.2	1.2	0.3	100.0	26.5	156
Mid-western hill	12.7	41.5	5.6	0.9	36.5	0.0	0.9	0.9	0.9	100.0	39.2	90
Far-western hill	23.3	46.5	2.0	0.0	27.8	0.0	0.0	0.0	0.4	100.0	29.5	59
Eastern terai	18.9	76.5	2.3	0.0	0.0	0.0	0.0	2.3	0.0	100.0	58.2	101
Central terai	7.3	87.3	3.6	0.0	0.0	0.0	1.8	0.0	0.0	100.0	57.7	277
Western terai	7.2	90.5	0.0	0.0	0.0	0.0	0.0	0.0	2.3	100.0	47.3	65
Mid-western terai	20.2	71.0	3.1	0.0	4.7	0.0	0.5	0.0	0.5	100.0	58.1	54
Far-western terai	(50.0)	(46.2)	(3.8)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(23.1)	38
Mother's education												
No education	8.9	69.9	4.8	0.5	13.7	0.3	0.7	0.8	0.4	100.0	47.6	629
Primary	15.6	68.0	4.1	0.4	8.1	0.7	1.2	1.6	0.3	100.0	35.7	238
Some secondary	25.4	61.3	0.9	0.2	6.9	0.5	0.5	3.8	0.5	100.0	30.7	187
SLC and above	22.4	69.2	0.0	0.0	5.3	0.0	2.8	0.0	0.2	100.0	32.6	89
Wealth quintile												
Lowest	8.2	59.3	6.4	0.5	22.1	0.7	0.6	2.0	0.3	100.0	37.0	415
Second	13.1	68.7	3.9	0.4	10.3	0.2	1.7	0.7	0.9	100.0	40.6	283
Middle	18.9	76.9	0.9	0.5	0.7	0.2	1.0	0.8	0.1	100.0	49.4	259
Fourth	20.7	75.7	0.2	0.0	0.3	0.1	0.4	2.3	0.3	100.0	37.2	151
Highest	(28.3)	(67.5)	(3.6)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.6)	100.0	(54.3)	34
Total	14.1	68.0	3.6	0.4	10.8	0.4	0.9	1.4	0.4	100.0	41.2	1,143

Note: Figures in parentheses are based on 25-49 unweighted cases.

SLC = School Leaving Certificate

One important newborn care practice is care of the umbilical cord. Table 9.14 shows that a new/boiled blade was used to cut the umbilical cord in 68 percent of non-institutional births in the two years preceding the survey, while instruments from a clean home delivery kit were used in 14 percent of births. A hasiya (sickle) was used in 11 percent of births, and 4 percent were exposed to used, unsterile blades.

Forty-one percent of babies had some material (usually oil, an ointment, turmeric, or ash) placed on their umbilical stump. Only 2 percent of babies had chlorhexidine ointment placed on their stump after cutting

of the umbilical cord (data not shown). Nineteen percent of babies had an unknown ointment/powder placed on their stump.

The 2011 NDHS asked mothers with non-institutional deliveries in the two years preceding the survey about the newborn care practices they adopted. Table 9.15 indicates that 59 percent of newborns were wiped before the placenta was delivered and 62 percent were wrapped in cloth; only 10 percent were placed on the belly or breast of the mother before the placenta was delivered. As hypothermia among newborns is one of the principal causes of neonatal death, these practices should be more common. Immediate wiping, skin-to-skin contact, and wrapping are more frequent among urban women and among those in the Far-western region.

One in two newborns is bathed within an hour of birth, a practice that is not recommended. However, the practice of first bathing babies at least 24 hours after birth has improved since 2006, with one in four newborns being bathed only after 24 hours post-birth compared with only 9 percent in 2006.

	Wiped before the placenta	Placed on	Wrapped in cloth before		kground chara	ning of first b			
Background characteristic	was delivered	was delivered	was delivered	Within 1 hour	2-24 hours	After 24 hours	Don't know/ missing	Total	Number o births
Residence									
Urban	77.0	25.5	78.5	56.1	12.8	27.5	3.6	100.0	39
Rural	58.6	9.9	61.6	49.8	22.8	26.1	1.3	100.0	1,103
									.,
Ecological zone	64.0	40.0	<u> </u>	<b>F7 7</b>	05.0	40.0	0.0	100.0	100
Mountain	61.0	10.2	68.3	57.7	25.8	16.2	0.3	100.0	120
Hill	58.7	8.4	61.7	60.0	16.1	22.5	1.4	100.0	487
Terai	59.4	12.3	61.2	39.1	27.5	31.7	1.7	100.0	536
Development region									
Eastern	58.2	10.1	61.9	55.3	11.8	32.7	0.2	100.0	227
Central	51.0	10.6	54.7	41.4	29.5	26.5	2.7	100.0	384
Western	64.3	5.0	65.0	57.2	14.1	26.5	2.3	100.0	222
Mid-western	59.9	10.0	61.8	61.3	21.5	17.1	0.0	100.0	181
Far-western	76.2	20.2	80.7	37.9	36.3	25.6	0.2	100.0	129
Subregion									
Eastern mountain	52.3	7.9	64.0	54.3	8.8	35.6	1.3	100.0	27
Central mountain	48.4	12.0	58.7	65.6	17.2	17.2	0.0	100.0	24
Western mountain	68.9	10.4	73.3	56.3	35.6	8.1	0.0	100.0	69
Eastern hill	44.1	6.5	51.0	66.6	7.2	26.2	0.0	100.0	99
Central hill	55.0	13.5	56.9	63.2	11.5	22.0	3.3	100.0	83
Western hill	61.1	6.2	61.1	55.9	15.4	26.3	2.5	100.0	156
Mid-western hill	62.0	5.6	65.6	63.2	20.5	16.3	0.0	100.0	90
Far-western hill	77.4	14.4	82.1	50.8	32.5	16.7	0.0	100.0	59
Eastern terai	73.7	14.2	71.9	44.5	17.2	38.4	0.0	100.0	101
Central terai	50.1	9.6	53.7	32.7	35.9	28.6	2.7	100.0	277
Western terai	72.0	2.3	74.3	60.4	10.8	27.0	1.8	100.0	65
Mid-western terai	60.6	18.5	57.5	53.3	23.9	22.7	0.0	100.0	54
Far-western terai	(65.4)	(35.3)	(70.5)	(14.7)	(28.2)	(56.4)	(0.6)	100.0	38
Mother's education									
No education	57.9	10.3	60.7	50.4	26.0	22.3	1.3	100.0	629
Primary	56.6	10.9	57.8	56.2	17.4	25.6	0.8	100.0	238
Some secondary	61.5	11.5	68.0	45.9	19.8	33.6	0.7	100.0	187
SLC and above	71.4	7.4	72.1	39.0	16.8	39.2	5.0	100.0	89
Woolth quintilo									
Wealth quintile Lowest	54.3	7.8	57.6	64.0	20.6	15.4	0.0	100.0	415
Second	54.5 55.7	8.2	58.4	48.4	20.6	27.5	1.9	100.0	283
Middle	55.7 60.4	0.2 12.1	56.4 62.6	40.4 38.0	22.2	33.1	2.9	100.0	263 259
Fourth	68.9	15.6	73.1	38.2	20.0	36.9	2.9	100.0	151
Highest	(97.1)	(24.4)	(97.8)	(35.1)	(19.8)	(45.1)	(0.0)	100.0	34
•	. ,	. ,		. ,		. ,	. ,		
Total	59.3	10.4	62.2	50.0	22.5	26.1	1.4	100.0	1,143

Note: Figures in parentheses are based on 25-49 unweighted cases. SLC = School Leaving Certificate

# 9.8 ABORTION

Nepal made abortion legal in September 2002. The government began providing comprehensive abortion care services in March 2004 (GoN/DoHS/FHD/WHO/CHREPA, 2006).

The abortion law allows women to terminate their pregnancy under the following conditions: pregnancies of 12 weeks gestation or less for any woman on her own decision, pregnancies of 18 weeks gestation if the pregnancy is a result of rape or incest, and pregnancies of any duration with the recommendation of an authorized medical practitioner if the life of the mother is at risk, if her physical or mental health is at risk, or if the fetus is deformed. However, the law prohibits abortions done without the consent of the woman, sexselective abortions, and abortions performed outside the legally permissible criteria.

Abortion services are provided at service delivery points with surgical facilities and medicines located at district hospitals, some primary health care centers, health posts, and private hospitals. The Nepal government, through the Ministry of Health and Population, has prioritized the national safe abortion program, and significant efforts have been made in the last five years to expand services. In collaboration with Ipas, an international NGO, the Family Health Division has scaled up service facilities. There are currently about 245 registered sites covering all 75 districts in the country (Ipas, 2010a). The 2011 NDHS included a series of questions specific to abortion, including knowledge on legalization of abortion and the legal conditions for abortion, knowledge about places that provide safe abortions, and, among women who had an abortion in the five years preceding the survey, the reason for the abortion, the type of abortion procedure, the type of provider, complications due to the procedure, and the cost of the abortion.

## 9.8.1 Knowledge that Abortion is Legal in Nepal

Table 9.16 shows that only 38 percent of women age 15-49 believe that abortion in Nepal is legal. Women age 45-49 are least likely to know that abortion is legal. Urban women and women who reside in the Far-western region, particularly the Far-western terai subregion, are more likely than their counterparts to believe that abortion in Nepal is legal. Nearly two-thirds of women with an SLC and higher education, and half of women with some secondary education believe that abortion is legal, along with 54 percent of women in the highest wealth quintile.

Those who stated that abortion is legal in Nepal were further asked under what circumstances it is legal. Among women who believe that abortion is legal in Nepal, one-third stated that it is legal for pregnancies up to 12 weeks, and one-fifth stated that it is legal for pregnancies of 18 weeks duration if they were a result of rape or incest. Fewer than 10 percent of women each believed that abortion is legal if the mother's life is in danger, if the mother has a physical or mental condition that would make a pregnancy a health risk, or if there is a fetal abnormality. Nearly two-fifths of women did not know under what circumstances abortion in Nepal is legal. This was especially true for women in rural areas, those with no education, and those in the lowest wealth quintile. It is interesting to note that although a large proportion of women in the Far-western region believe that abortion is legal in Nepal, many of these women do not know under what circumstances it is legal.

#### Table 9.16 Knowledge that abortion is legal in Nepal

Percentage of women who think abortion is legal in Nepal, and among women who think abortion is legal, percentage who report specific circumstances under which abortion is legal, according to background characteristics, Nepal 2011

	Knowledge	of abortion	Circumstances for legal abortion								
Background characteristic	Percentage who think abortion is legal	Number of women	Pregnancy of 12 weeks duration or less for any woman	Pregnancy of 18 weeks duration if resulted from rape/ incest	Life of mother in danger	Mother's physical/ mental health at risk	Fetus abnormality	Other	Don't know	Number of women who think abortion is legal	
Age											
15-19	39.8	2,753	29.5	20.1	5.7	7.7	3.9	6.9	45.3	1,097	
20-24	42.3	2,297	34.5	18.5	8.2	11.0	7.5	9.8	39.4	973	
25-29	41.0	2,101	40.6	19.7	11.3	10.7	10.9	8.5	31.1	861	
30-34	38.2	1,734	38.3	25.1	9.6	9.1	7.2	8.2	35.3	663	
35-39	35.7	1,557	39.4	23.7	11.2	8.6	6.4	13.1	33.3	555	
40-44	30.2	1,285	35.4	19.2	5.7	6.1	6.4	7.5	44.1	388	
45-49	26.5	947	32.5	24.1	5.4	7.7	5.2	9.5	40.2	251	
Residence											
Urban	47.2	1,819	33.7	26.1	11.0	13.0	11.5	13.8	29.8	859	
Rural	36.2	10,855	35.9	19.8	7.8	8.2	5.9	7.8	40.3	3,929	
Ecological zone											
Mountain	39.8	805	47.5	12.5	4.0	6.4	2.7	2.5	43.8	321	
Hill	38.2	5,090	39.7	23.7	8.4	9.9	7.7	11.4	31.9	1,945	
Terai	37.2	6,779	30.8	19.9	8.9	8.8	6.8	7.7	42.7	2,522	
Development region											
Eastern	37.9	3,057	40.2	18.0	10.5	11.3	7.3	9.3	30.8	1,157	
Central	35.1	4,236	29.0	27.4	8.4	10.4	9.6	11.6	35.3	1,488	
Western	35.5	2,660	41.9	26.6	8.4	8.6	6.9	9.2	32.3	944	
Mid-western	36.9	1,478	28.7	13.5	5.7	4.6	2.4	7.3	54.9	546	
Far-western	52.6	1,242	38.3	9.6	6.8	6.5	3.7	2.8	53.8	653	
Subregion											
Eastern mountain	34.6	229	57.7	22.4	8.1	13.6	4.6	1.7	27.0	79	
Central mountain	43.8	258	46.0	11.1	2.9	5.0	3.4	3.8	44.5	113	
Western mountain	40.4	319	42.7	7.5	2.4	3.2	0.8	2.0	53.4	129	
Eastern hill	38.5	956	47.5	9.7	7.8	6.5	6.5	8.6	36.5	368	
Central hill	44.0	1,563	36.5	34.6	12.1	15.3	13.7	16.8	17.2	688	
Western hill	32.0	1,513	43.4	26.2	5.9	8.0	5.5	6.7	35.1	483	
Mid-western hill	34.6	649	25.5	20.3	4.8	6.7	1.2	15.1	47.4	225	
Far-western hill	44.2	409	43.4	7.7	7.1	5.0	1.0	4.9	49.8	181	
Eastern terai	37.9	1,873	34.4	21.8	12.2	13.5	8.1	10.5	28.3	710	
Central terai	28.4	2,415	18.7	22.9	5.6	6.4	6.5	7.6	51.9	687	
Western terai	40.1	1,147	40.5	27.0	11.0	9.2	8.4	11.9	29.3	460	
Mid-western terai	39.4	668	27.7	8.6	7.4	3.5	3.9	2.2	62.2	263	
Far-western terai	59.5	676	35.6	11.0	7.4	7.6	5.2	1.8	55.2	402	
Education											
No education	20.4	5,045	27.1	13.5	3.8	1.9	3.2	7.9	53.6	1,030	
Primary	31.5	2,209	31.1	12.5	5.3	6.5	4.2	6.5	48.0	695	
Some secondary	50.2	3,088	37.5	20.2	7.8	7.1	5.0	8.6	38.8	1,551	
SLC and above	64.8	2,331	41.2	30.7	13.6	17.1	12.6	10.9	23.1	1,512	
Wealth quintile											
Lowest	21.8	2,120	29.3	7.3	2.0	3.4	1.5	3.0	60.8	461	
Second	28.5	2,393	35.2	13.0	5.0	4.9	3.0	6.1	46.9	681	
Middle	32.5	2,600	34.4	17.3	5.1	5.6	4.6	6.1	46.6	845	
Fourth	46.7	2,722	34.5	23.4	10.0	8.2	7.2	10.3	36.5	1,270	
Highest	53.9	2,839	38.9	28.7	12.3	15.3	11.3	12.3	24.9	1,530	
Total	37.8	12,674	35.5	21.0	8.4	9.1	6.9	8.9	38.4	4,788	

Note: Other includes "can abort if no more children desired" and "unwanted."  ${\rm SLC}$  = School Leaving Certificate

## 9.8.2 Knowledge about Places That Provide Safe Abortions

With the legalization of abortion, service providers in Nepal have been trained to conduct safe abortions. Table 9.17 shows that 59 percent of women age 15-49 report knowing a place where a safe abortion can be obtained. Knowledge of a safe abortion place is higher among urban, educated, and wealthy women than among their counterparts. Knowledge of a safe abortion place is also higher in the terai than in the hill or mountain zone and higher in the Western and Mid-western terai than in the other subregions.

Women who report knowing places for safe abortion are more likely to mention the government sector (71 percent) than the private sector (58 percent) or the nongovernment sector (29 percent).

#### Table 9.17 Knowledge about places that provide safe abortions

Percentage of women who know about a place for safe abortion, and among those women who know about a place for safe abortion, the percentage who report specific service sectors for safe abortion, according to background characteristics, Nepal 2011

Percentage         women         Non- safe         Non- sector         No		Knowledge	e on place		Place for sat	fe abortion		– Number of
characteristic         abortion         women         sector         sector         sector         characteristic           Age         15-19         53.5         2,753         72.7         22.8         57.2         0.1         1,472           20-24         63.5         2,297         72.9         32.0         55.4         0.4         1,459           25-29         66.3         2,101         70.2         34.3         59.7         0.4         1,392           30-34         65.3         1,734         67.9         36.0         59.3         0.6         1,131           35-39         59.2         1,557         71.1         27.0         57.4         0.7         922           40-44         49.8         1,285         71.3         22.0         59.2         0.2         639           45-49         46.8         947         74.6         21.4         55.9         1.0         443           Bural         1.857         71.3         27.8         57.1         0.3         6,308           Ecological zone         Mountain         60.1         805         30.5         57.1         0.6         1,755           Central         59.5		who know a			Non-			women who know a
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							Other	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$								1,459
$\begin{array}{cccccccccccccccccccccccccccccccccccc$								
40-44       49.8       1,285       71.3       22.0       59.2       0.2       639         45-49       46.8       947       74.6       21.4       55.9       1.0       443         Residence         Urban       63.2       1.819       71.7       36.6       61.4       1.0       1,151         Rural       58.1       10.855       77.3       27.8       57.1       0.3       6,308         Ecological zone         Mountain       60.1       805       88.3       18.1       46.9       0.0       484         Hill       50.4       50.90       76.9       28.5       54.9       0.3       2.564         Terai       65.1       6.779       66.3       30.7       60.6       0.6       4.411         Development region         Eastern       57.4       3.057       60.1       30.5       54.7       1.1       749         Western       54.1       2.660       73.1       30.5       62.4       0.1       1.438         Mid-western       67.4       1.478       80.5       30.4       51.4       0.3       1997         Cantral mo								
Residence Urban         63.2         1.819         71.7         36.6         61.4         1.0         1.151           Rural         58.1         10,855         71.3         27.8         57.1         0.3         6,308           Ecological zone Mountain         60.1         805         88.3         18.1         46.9         0.0         484           Hill         50.4         5.090         76.9         28.5         54.9         0.3         2.564           Terai         65.1         6,779         66.3         30.7         60.6         0.6         4.411           Development region         Eastern         54.1         2,660         73.05         62.4         0.1         1.438           Mid-western         67.4         1,478         80.5         30.4         51.4         0.3         997           Far-western         60.3         1,242         84.7         26.6         54.7         1.1         749           Subregion         Eastern mountain         58.2         229         91.7         7.3         49.4         0.0         133           Central mountain         56.5         25.8         76.5         27.1         68.5         0.0         10						59.2		
Urban         63.2         1.819         71.7         36.6         61.4         1.0         1.151           Rural         58.1         10,855         71.3         27.8         57.1         0.3         6,308           Ecological zone	45-49	46.8	947	74.6	21.4	55.9	1.0	443
Rural58.1 $10,855$ 71.3 $27.8$ $57.1$ $0.3$ $6,308$ Ecological zone Mountain60.1 $805$ $88.3$ $18.1$ $46.9$ $0.0$ $484$ Hill $50.4$ $5,000$ $76.9$ $28.5$ $54.9$ $0.3$ $2,564$ Terai $65.1$ $6,779$ $66.3$ $30.7$ $60.6$ $0.6$ $4,411$ Development regionEastern $57.4$ $3,057$ $60.1$ $30.5$ $57.1$ $0.6$ $1,755$ Central $59.5$ $4,236$ $70.7$ $27.7$ $58.9$ $0.4$ $2,520$ Western $67.4$ $1,478$ $80.5$ $30.4$ $51.4$ $0.3$ $997$ Far-western $60.3$ $1,242$ $84.7$ $26.6$ $54.7$ $1.1$ $749$ SubregionEastern mountain $58.2$ $229$ $91.7$ $7.3$ $49.4$ $0.0$ $133$ Central mountain $58.2$ $229$ $91.7$ $7.3$ $49.4$ $0.0$ $133$ Central mountain $56.5$ $25.8$ $76.5$ $27.1$ $68.5$ $0.0$ $146$ Western mountain $64.3$ $319$ $94.5$ $18.6$ $30.0$ $0.0$ $205$ Eastern hill $48.4$ $956$ $75.7$ $35.5$ $60.1$ $0.4$ $861$ Western hill $62.7$ $2.415$ $68.4$ $23.3$ $57.3$ $0.4$ $463$ Central hill $55.4$ $60.7$ $33.0$ $64.8$ $0.4$ $476$ <		62.2	1 010	74 7	26.6	64.4	1.0	4 4 5 4
Ecological zoneMountain60.180588.318.146.90.0484Hill50.45.09076.928.554.90.32.564Terai65.16,77966.330.760.60.64.411Development regionEastern57.43,05760.130.557.10.61.755Central59.54.23670.727.758.90.42.520Western64.12.66073.130.562.40.11.438Mid-western67.41.66073.130.562.40.11.438Mid-western60.31.24284.726.654.71.1749SubregionEastern mountain56.525876.527.168.50.0146Western mountain56.525876.527.168.50.0146Western mountain64.331994.518.630.00.0205Eastern hill55.11.56373.735.560.10.4861Western hill57.540980.728.244.40.3405Far-western hill57.540980.728.244.40.3405Eastern hill57.540980.728.244.40.3405Far-western hill57.62.0973.724.166.661.70.2838<								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		56.1	10,000	71.5	27.0	57.1	0.5	0,300
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		60.1	805	88.3	18.1	46.9	0.0	484
Development region         Eastern         57.4         3,057         60.1         30.5         57.1         0.6         1,755           Central         59.5         4,260         73.1         30.5         62.4         0.1         1,438           Mid-western         67.4         1,478         80.5         30.4         51.4         0.3         997           Far-western         60.3         1,242         84.7         26.6         54.7         1.1         749           Subregion         Eastern mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western hill         48.4         956         75.0         25.8         47.5         0.4         463           Central hill         55.1         1,563         73.7         35.5         60.1         0.4         863           Western hill         39.7         1,513         77.4         21.8         63.5         0.0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Eastern       57.4       3,057       60.1       30.5       57.1       0.6       1,755         Central       59.5       4,236       70.7       27.7       58.9       0.4       2,520         Western       67.4       1,478       80.5       30.4       51.4       0.3       997         Far-western       60.3       1,242       84.7       26.6       54.7       1.1       749         Subregion       Eastern mountain       58.2       229       91.7       7.3       49.4       0.0       133         Central mountain       56.5       258       76.5       27.1       68.5       0.0       146         Western mountain       64.3       319       94.5       18.6       30.0       0.0       205         Eastern hill       48.4       956       75.0       25.8       47.5       0.4       463         Central hill       55.1       1,563       73.7       35.5       60.1       0.4       861         Western hill       62.4       649       80.7       28.2       44.4       0.3       405         Far-western hill       57.5       409       84.2       25.4       47.0       0.5	Terai	65.1	6,779	66.3	30.7	60.6	0.6	4,411
$\begin{array}{cccccccccccccccccccccccccccccccccccc$								
Western         54.1         2,660         73.1         30.5         62.4         0.1         1,438           Mid-western         67.4         1,478         80.5         30.4         51.4         0.3         997           Far-western         60.3         1,242         84.7         26.6         54.7         1.1         749           Subregion         Eastern mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         64.3         319         94.5         18.6         30.0         0.0         205           Eastern hill         48.4         956         75.0         25.8         47.5         0.4         463           Central hill         55.1         1,563         73.7         35.5         60.1         0.4         861           Western hill         39.7         1,513         77.4         21.8         63.5         0.0         600           Mid-western hill         52.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159     <								
Mid-western         67.4         1,478         80.5         30.4         51.4         0.3         997           Subregion         Eastern mountain         58.2         229         91.7         7.3         49.4         0.0         133           Central mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western hill         44.3         319         94.5         18.6         30.0         0.0         205           Eastern hill         55.1         1,563         73.7         35.5         60.1         0.4         463           Western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.8         76.7         33.0         64.8         0.4								
Far-western         60.3         1,242         84.7         26.6         54.7         1.1         749           Subregion         Eastern mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         64.3         319         94.5         18.6         30.0         0.0         205           Eastern hill         48.4         956         75.0         25.8         47.5         0.4         463           Central hill         55.1         1,563         73.7         35.5         60.1         0.4         861           Western hill         39.7         1,513         77.4         21.8         63.5         0.0         600           Mid-western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.7         0.2         838           Mid-western terai         71.2         668         76.7         33.0         64.8         0.4         476 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Eastern mountain         58.2         229         91.7         7.3         49.4         0.0         133           Central mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         64.3         319         94.5         18.6         30.0         0.0         205           Eastern hill         48.4         956         75.0         25.8         47.5         0.4         463           Central hill         55.1         1,563         73.7         35.5         60.1         0.4         861           Western hill         39.7         1,513         77.4         21.8         63.5         0.0         600           Mid-western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.4         23.3         57.3         0.4         1,513           Western terai         73.0         1,147         70.1         36.6         61.7         0.2         838								
Central mountain         56.5         258         76.5         27.1         68.5         0.0         146           Western mountain         64.3         319         94.5         18.6         30.0         0.0         205           Eastern hill         48.4         956         75.0         25.8         47.5         0.4         463           Central hill         55.1         1,563         73.7         35.5         60.1         0.4         861           Western hill         39.7         1,513         77.4         21.8         63.5         0.0         600           Mid-western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.4         23.3         57.3         0.4         1,513           Western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425								
Western mountain $64.3$ $319$ $94.5$ $18.6$ $30.0$ $0.0$ $205$ Eastern hill $48.4$ $956$ $75.0$ $25.8$ $47.5$ $0.4$ $463$ Central hill $55.1$ $1,563$ $73.7$ $35.5$ $60.1$ $0.4$ $861$ Western hill $39.7$ $1,513$ $77.4$ $21.8$ $63.5$ $0.0$ $600$ Mid-western hill $62.4$ $649$ $80.7$ $28.2$ $44.4$ $0.3$ $405$ Far-western hill $57.5$ $409$ $84.2$ $25.4$ $47.0$ $0.5$ $236$ Eastern terai $61.9$ $1,873$ $50.5$ $35.1$ $61.9$ $0.7$ $1,159$ Central terai $62.7$ $2,415$ $68.4$ $23.3$ $57.3$ $0.4$ $1,513$ Western terai $73.0$ $1,147$ $70.1$ $36.6$ $61.7$ $0.2$ $838$ Mid-western terai $71.2$ $668$ $76.7$ $33.0$ $64.8$ $0.4$ $476$ Far-western terai $62.9$ $676$ $83.0$ $31.4$ $61.8$ $1.6$ $425$ Education $8.1$ $5,045$ $70.8$ $16.0$ $55.3$ $0.6$ $2,425$ Primary $55.6$ $2,209$ $73.7$ $24.1$ $56.1$ $0.2$ $1,229$ Some secondary $63.8$ $3,088$ $72.0$ $32.4$ $58.6$ $0.3$ $1,971$ SLC and above $78.6$ $2,331$ $69.7$ $46.4$ $61.2$ $0.5$ $1,833$								
Eastern hill         48.4         956         75.0         25.8         47.5         0.4         463           Central hill         55.1         1,563         73.7         35.5         60.1         0.4         861           Western hill         39.7         1,513         77.4         21.8         63.5         0.0         600           Mid-western hill         62.4         649         80.7         28.2         44.4         0.3         405           Far-western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.4         23.3         57.3         0.4         4,763           Western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425           Education         48.1         5,045         70.8         16.0         55.3         0.6         2,425								
Central hill         55.1         1,563         73.7         35.5         60.1         0.4         861           Western hill         39.7         1,513         77.4         21.8         63.5         0.0         600           Mid-western hill         57.5         409         80.7         28.2         44.4         0.3         405           Far-western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.4         23.3         57.3         0.4         1,513           Western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425           Education         Mo <education< th="">         48.1         5,045         70.8         16.0         55.3         0.6         2,425           Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229<!--</td--><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></education<>								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								
Far-western hill         57.5         409         84.2         25.4         47.0         0.5         236           Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.4         23.3         57.3         0.4         1,513           Western terai         73.0         1,147         70.1         36.6         61.7         0.2         838           Mid-western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425           Education           55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile             33.9         57.0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
Eastern terai         61.9         1,873         50.5         35.1         61.9         0.7         1,159           Central terai         62.7         2,415         68.4         23.3         57.3         0.4         1,513           Western terai         73.0         1,147         70.1         36.6         61.7         0.2         838           Mid-western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425           Education         48.1         5,045         70.8         16.0         55.3         0.6         2,425           Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile         Lowest         40.2         2,120         80.6         15.4         43.7         0.4								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								
Western terai         73.0         1,147         70.1         36.6         61.7         0.2         838           Mid-western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425           Education         No education         48.1         5,045         70.8         16.0         55.3         0.6         2,425           Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile         Uowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,722         70.8         33.9         57.0         0.6 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Mid-western terai         71.2         668         76.7         33.0         64.8         0.4         476           Far-western terai         62.9         676         83.0         31.4         61.8         1.6         425           Education         No education         48.1         5,045         70.8         16.0         55.3         0.6         2,425           Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile         Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,722         70.8         33.9         57.0         0.6         1,802           Fourth         66.2         2,722         70.8         33.9         57.0         0.6								
Education         48.1         5,045         70.8         16.0         55.3         0.6         2,425           Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile         Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458								476
No education         48.1         5,045         70.8         16.0         55.3         0.6         2,425           Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile         Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458	Far-western terai	62.9	676	83.0	31.4	61.8	1.6	425
Primary         55.6         2,209         73.7         24.1         56.1         0.2         1,229           Some secondary         63.8         3,088         72.0         32.4         58.6         0.3         1,971           SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile         Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458		10.1	5.045	70.0	10.0	<b>55 0</b>		0.405
Some secondary SLC and above         63.8 78.6         3,088 2,331         72.0 69.7         32.4 46.4         58.6 61.2         0.3 0.5         1,971 1,833           Wealth quintile Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458								
SLC and above         78.6         2,331         69.7         46.4         61.2         0.5         1,833           Wealth quintile Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458								
Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458			- /					
Lowest         40.2         2,120         80.6         15.4         43.7         0.4         852           Second         51.3         2,393         75.5         15.8         56.0         0.1         1,228           Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458	Wealth quintile							
Middle         60.2         2,600         67.8         22.5         60.0         0.3         1,567           Fourth         66.2         2,722         70.8         33.9         57.0         0.6         1,802           Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458	Lowest							
Fourth Highest         66.2 70.8         2,722 2,839         70.8 68.2         33.9 44.1         57.0 63.8         0.6         1,802 2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458							•••	
Highest         70.8         2,839         68.2         44.1         63.8         0.6         2,009           Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458								
Total         58.8         12,674         71.4         29.1         57.8         0.4         7,458								/
	5							
SLC = School Leaving Certificate			12,074	/ 1.4	23.1	51.0	0.4	7,400
	SLC = School Leaving	g Certificate						

## 9.8.3 Pregnancy Outcomes

A pregnancy that does not end in a live birth is a stillbirth, a miscarriage, or an abortion. Table 9.18 shows the percent distribution of all pregnancies that ended during the five years preceding the survey by type of outcome. The majority of pregnancies (85 percent) end in a live birth. Eight percent of pregnancies are aborted, 7 percent result in a miscarriage, and a very small proportion end up as stillbirths (1 percent). Abortions are proportionately higher among women age 20 and above and pregnancies of order three and higher. The percentage of pregnancies ending in abortion is more than twice as high in urban as in rural areas. Abortions are relatively higher in the hill zone and terai than in the mountain zone. The Western region has a higher proportion of pregnancies ending in abortion than the other development regions, and abortions are particularly high in the Western terai subregion, where 15 percent of pregnancies are aborted. Around 10 percent of pregnancies among women with at least some education end in an abortion. The proportion of pregnancies household wealth, from 3 percent among pregnancies in the poorest households to 18 percent in the wealthiest households.

#### Table 9.18 Pregnancy outcomes by background characteristics

Percent distribution of pregnancies ending in the five years preceding the survey by type of outcome, according to background characteristics, Nepal 2011

Background	Pregnancy outcome							
characteristic	Live birth	Stillbirth	Miscarriage	Abortion	Total	pregnancie		
Age at end of pregnancy								
<20	88.4	0.8	7.9	2.8	100.0	1,245		
20-34	84.9	0.9	6.1	8.1	100.0	4,605		
35-49	75.3	1.1	9.9	13.7	100.0	505		
Pregnancy order								
1	90.2	1.1	7.2	1.5	100.0	1,889		
2	88.1	0.6	6.0	5.2	100.0	1,550		
3	82.1	0.8	6.3	10.7	100.0	1,154		
4	78.2	0.6	5.3	15.8	100.0	706		
5+	77.8	1.2	8.5	12.5	100.0	1,058		
Residence								
Urban	76.5	0.5	8.2	14.7	100.0	658		
Rural	85.8	1.0	6.6	6.7	100.0	5,698		
Ecological zone								
Mountain	85.5	1.9	7.7	4.9	100.0	500		
Hill	84.2	0.9	6.7	8.2	100.0	2,531		
Terai	85.2	0.8	6.7	7.3	100.0	3,325		
Development region								
Eastern	85.9	1.3	7.6	5.2	100.0	1,478		
Central	88.5	0.3	5.0	6.2	100.0	1,940		
Western	80.3	0.8	6.8	12.2	100.0	1,255		
Mid-western	84.4	1.5	7.4	6.7	100.0	940		
Far-western	81.4	1.2	8.9	8.5	100.0	744		
	0.111		0.0	0.0	10010			
Subregion	97.0	2.4	6.0	2.0	100.0	115		
Eastern mountain	87.9 87.1		6.9	2.8	100.0	115		
Central mountain		0.4	6.9	5.6	100.0	110		
Western mountain	83.9	2.2	8.3	5.6	100.0	275		
Eastern hill	86.8	2.1	7.2	3.9	100.0	480		
Central hill	83.5	0.0	4.6	11.8	100.0	593		
Western hill	83.1	0.3	6.5	10.1	100.0	727		
Mid-western hill	85.1	1.3	7.6	5.9	100.0	432		
Far-western hill	82.5	1.7	9.0	6.7	100.0	299		
Eastern terai	85.2	0.6	7.9	6.2	100.0	883		
Central terai	91.0	0.5	5.0	3.5	100.0	1,237		
Western terai	76.3	1.5	7.2	15.1	100.0	528		
Mid-western terai	84.1	1.0	6.6	8.3	100.0	358		
Far-western terai	78.9	0.8	9.1	11.3	100.0	320		
Education								
No education	89.4	1.0	5.6	4.0	100.0	2,851		
Primary	82.5	1.2	7.1	9.2	100.0	1,308		
Some secondary	79.5	0.9	7.7	12.0	100.0	1,307		
SLC and above	81.3	0.3	8.6	9.8	100.0	889		
Wealth quintile								
Lowest	89.2	1.3	6.2	3.3	100.0	1,557		
Second	88.3	0.8	6.8	4.1	100.0	1,340		
Middle	86.4	1.1	6.2	6.3	100.0	1,312		
Fourth	82.9	0.4	7.0	9.6	100.0	1,130		
Highest	73.6	0.4	8.2	17.5	100.0	1,016		
Total	84.8	0.9	6.8	7.5	100.0	6,356		

## 9.8.4 Reason for the Most Recent Abortion

Women who had an abortion in the five years preceding the survey were asked the reason for their most recent abortion. One in five women mentioned that the main reason for their most recent abortion was that they did not want any more children, while 12 percent said that their husband/partner did not want the child (Table 9.19). Another 10 percent of women said that they wanted to space their births, and 7 percent mentioned that they wanted to delay childbearing. Ten percent of women reported that they had an abortion because of their health, and 12 percent mentioned that they aborted because there was no money to take care of the baby.

### Table 9.19 Main reason for the most recent abortion in the past five years

Percent distribution of women with an abortion in the five years preceding the survey by main reason for the most recent abortion, according to background characteristics, Nepal 2011

			Main re	ason for havin	g most recent	abortion			
Background characteristic	Health of mother	No money to take care of baby		Wanted to space child	Did not want any more children	Husband/ partner did not want child	Other	Total	Number of women
Age at end of pregnancy									
<20	(21.5)	(7.7)	(18.7)	(22.8)	(0.0)	(1.0)	(28.3)	100.0	34
20-34	10.7	13.3	7.5	10.1	20.4	13.8	24.2	100.0	325
35-49	2.3	10.1	0.0	1.7	30.7	10.7	44.5	100.0	61
Pregnancy order									
1	(32.2)	(6.9)	(9.6)	(6.6)	(0.0)	(1.2)	(43.5)	100.0	28
2	7.9	6.7	21.4	36.5	3.2	2.6	21.8	100.0	79
2 3	11.0	16.0	6.4	4.5	21.6	15.3	25.1	100.0	112
4	13.2	13.3	1.6	3.0	32.2	12.7	23.9	100.0	92
5+	3.6	13.3	2.3	2.6	26.5	18.8	33.0	100.0	109
Residence									
Urban	11.4	14.4	9.3	8.9	15.4	12.4	28.3	100.0	81
Rural	10.1	11.9	6.9	10.1	21.4	12.3	27.3	100.0	339
Ecological zone									
Mountain	7.9	14.0	5.6	4.2	21.8	12.9	33.7	100.0	22
Hill	9.3	11.8	7.1	10.0	20.0	10.4	31.5	100.0	183
Terai	11.6	12.7	7.7	10.3	20.4	13.8	23.5	100.0	215
Development region									
Eastern	17.9	7.5	8.4	13.2	11.8	12.1	29.0	100.0	68
Central	12.3	11.0	5.7	12.8	20.7	8.2	29.4	100.0	105
Western	8.7	13.3	5.1	7.7	27.5	7.8	29.9	100.0	132
Mid-western	6.0	16.2	8.4	8.6	15.1	16.6	29.0	100.0	58
Far-western	6.0	14.6	13.5	6.7	18.0	26.4	14.9	100.0	56
Education									
No education	10.0	14.8	4.7	4.6	23.7	20.3	22.0	100.0	103
Primary	7.5	16.4	7.3	11.1	18.1	11.3	28.3	100.0	108
Some secondary	13.7	10.0	7.3	9.2	17.9	9.7	32.2	100.0	131
SLC and above	9.2	7.6	11.1	16.3	22.6	7.5	25.8	100.0	79
Wealth quintile									
Lowest	12.7	19.5	1.1	4.1	26.4	14.5	21.7	100.0	47
Second	5.9	13.3	14.2	4.5	19.3	15.6	27.3	100.0	51
Middle	4.7	12.1	6.0	9.7	18.5	15.7	33.3	100.0	75
Fourth	18.3	14.0	10.7	8.8	14.3	5.6	28.4	100.0	96
Highest	9.0	8.9	5.5	14.2	23.4	13.1	25.9	100.0	151
Total	10.4	12.4	7.4	9.9	20.3	12.3	27.5	100.0	420

Note: Figures in parentheses are based on 25-49 unweighted cases. SLC = School Leaving Certificate

#### 9.8.5 **Type of Abortion Procedure**

In the past, manual vacuum aspiration was the main procedure used for safe abortion in Nepal; recently, however, the government has encouraged medical abortion. Keeping in view the lack of modern technologies in rural areas of Nepal, medical abortion seems to be a viable option. Medical abortion was piloted from December 2008 to June 2009 with successful results (Ipas, 2010b).

Women who had an abortion were asked what procedure was used to terminate their pregnancy. Table 9.20 shows that 39 percent of women had a dilation and curettage (D & C), 24 percent had manual vacuum aspiration, 20 percent took unspecified tablets, and 9 percent had a medical abortion. Other actions to end a pregnancy taken by less than 5 percent of women each included injection, catheter, and other unspecified reasons.

Table 9.20 Abortion services in the past five years

Percent distributions of women receiving an abortion in the five years preceding the survey by procedure and provider used for the last abortion, and the percentage who received their last abortion in various places for abortion, Nepal 2011

Abortion services	Total	
Procedure for abortion		
Took tablets	19.5	
D&C	38.5	
Manual vacuum aspiration	24.1	
Medical abortion	9.1	
Injection	3.5	
Catheter	2.5	
Other	2.7	
Total	100.0	
Provider for abortion <sup>1</sup>		
Doctor	61.9	
Nurse/midwife	27.4	
Health assistant/health worker	2.9	
Pharmacist/medical shop	5.3	
Friends/relatives	0.9	
No one	1.6	
Total	100.0	
Place of abortion <sup>2</sup>		
Government sector	18.7	
Nongovernment sector	34.4	
Private sector	36.3	
Home	9.7	
Other	1.4	
Number of women with abortion	420	

<sup>1</sup> If the respondent mentioned more than one person attending during abortion, only the most qualified person is considered.
<sup>2</sup> Some respondents went to more than one place for an abortion.

### 9.8.6 Place and Provider for Abortion

In patriarchal societies such as Nepal, having an abortion has been associated with women losing morality and status in the community, cultivating a feeling of guilt among women. Because of the stigma attached to abortion, some women end up using traditional remedies, which can be unsafe and, in some cases, even fatal. However, with legalization of abortion, services are now available in health centers where women can access better and safer care. Safe abortion services are provided at government referral-level hospitals, district hospitals, clinics, and health posts. They are also provided by nongovernmental organizations and certain private-sector hospitals and clinics. Doctors, nurses, and auxiliary midwives trained as skilled birth attendants typically provide these services.

The majority of women who had an abortion in the five years preceding the survey went to a doctor (62 percent) or a nurse/midwife (27 percent) for the last abortion (Table 9.20). Five percent received services in a medical shop or from a pharmacist, while 3 percent received services from a health assistant or other health workers. The proportion of women who sought services from their friends and relatives was low (1 percent), and 2 percent of women did not receive any assistance in aborting their pregnancy.

Women who had an abortion in the five years before the survey were also asked for the place of their last abortion. About one in five women went to government health facilities, while one in three went to nongovernment health facilities such as Marie Stopes and FPAN. Another one-third went to private-sector facilities (36 percent). About 10 percent of women had their abortion at home.

Among those who went to government facilities and nongovernment facilities, all accessed government-listed sites for their abortion. However, among those who visited private-sector facilities, only 19 percent went to listed sites. Notably, about 8 percent of women went to India for abortion services (data not shown).

## 9.8.7 Complications during and after Abortion and Contraception

Women were also asked whether they experienced complications either during their last abortion or following the abortion. One in four women who had an abortion in the five years preceding the survey mentioned that they had complications during the last such procedure, and another 24 percent mentioned experiencing post-abortion complications (i.e., complications within one month following the abortion) (data not shown).

The 2011 NDHS collected information on women's use of contraception following an abortion. Fortyone percent of women who had an abortion in the five years preceding the survey used a contraceptive method after their abortion. Thirteen percent of these women used injectables, 11 percent used the pill, 2 percent used implants, and 1 percent each used female sterilization and IUDs; the remaining 13 percent of women used other methods (data not shown).

## 9.8.8 Abortion and Post-abortion Cost

Nearly one in two (48 percent) women with an abortion in the five years before the survey said that they paid more than Nepalese Rupees 1,500 for their most recent abortion, while 36 percent paid 1,000-1,500 and 10 percent paid less than 1,000. Only 6 percent of women mentioned that they had obtained free abortion services (data not shown).

The majority of women (69 percent) who had an abortion in the five years preceding the survey did not use post-abortion care services, even when they suffered from complications after their most recent abortion. Twenty-seven percent of women with an abortion in the five years preceding the survey paid less than Nepalese Rupees 1,000 while 4 percent paid more than 1,000 for post-abortion care services (data not shown).

# 9.9 UTERINE PROLAPSE

In Nepal, uterine prolapse affects about 10 percent of women nationally (Institute of Medicine, 2006). It is the most frequently reported cause of poor health among women of reproductive age and postmenopausal women. Many women in Nepal are engaged in extremely hard work (including heavy lifting), with little or no rest during pregnancy or the postpartum period, contributing to high rates of uterine prolapse.

Six percent of women who had ever given birth said they had experienced symptoms of uterine prolapse. Among these women 55 percent sought medical treatment, 9 percent sought traditional treatment, and 36 percent did not seek any treatment at all (data not shown). In 2006, 7 percent of women age 15-49 experienced uterine prolapse.

# 9.10 PROBLEMS IN ACCESSING HEALTH CARE

Many factors can prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery.

In the 2011 NDHS, women were asked whether or not each of the following factors would be a significant problem for them in seeking medical care: getting permission to go for treatment, getting money for treatment, distance to a health facility, and not wanting to go alone. The majority of women (72 percent) reported that at least one of these problems would pose a barrier to seeking health care for themselves when they are sick (Table 9.21). Sixty percent of women stated that not wanting to go alone is a problem in accessing health care, while getting money for treatment and distance to a health facility were each cited as a problem by around one in two women. Only 13 percent of women perceived getting permission to go for treatment as a problem.

#### Table 9.21 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Nepal 2011

			Problems in acce	essing health care			
	0				At least one		
Background characteristic	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	problem accessing health care	Number of women	
Age							
15-19	12.8	41.5	45.7	66.1	74.9	2,753	
20-34	13.4	45.4	45.6	58.5	70.1	6,132	
35-49	11.0	52.7	48.7	58.6	73.0	3,789	
Number of living children							
0	12.2	38.5	40.8	62.0	70.3	3,823	
1-2	12.0	43.2	43.1	55.9	67.9	4,591	
3-4	13.1	55.1	53.3	61.1	76.0	3,207	
5+	14.8	67.1	62.0	69.2	83.9	1,053	
Marital status							
Never married	10.3	37.9	38.9	61.1	69.6	2,708	
Married	13.3	48.7	48.7	59.9	72.4	9,608	
Divorced/separated/widowed	9.2	61.8	48.8	60.3	79.8	358	
Employed last 12 months							
Not employed	9.6	33.4	34.2	53.0	61.6	3,126	
Employed for cash	9.7	45.5	36.2	52.6	66.2	2,924	
Employed not for cash	15.2	53.6	57.0	66.9	79.5	6,625	
						2,220	
Residence	9.6	20.1	20 F	AE C	56.2	1 010	
Urban Rural	8.6 13.2	30.1 49.6	20.5 50.9	45.6 62.6	56.3 74.6	1,819	
Ruial	13.2	49.6	50.9	¢∠.b	74.6	10,855	
Ecological zone							
Mountain	12.6	54.6	64.8	70.7	80.9	805	
Hill	14.1	48.7	48.7	62.0	74.1	5,090	
Terai	11.4	44.4	42.8	57.6	69.4	6,779	
Development region							
Eastern	10.1	46.8	45.5	61.4	72.2	3,057	
Central	12.0	45.1	45.7	60.1	70.8	4,236	
Western	12.8	39.5	38.4	54.2	67.1	2,660	
Mid-western	15.5	52.8	56.2	64.4	77.9	1,478	
Far-western	16.4	60.8	58.2	65.5	78.8	1,242	
Subregion							
Eastern mountain	13.2	54.5	62.9	65.6	77.4	229	
Central mountain	10.6	50.9	59.9	71.5	80.2	258	
Western mountain	13.7	57.6	70.0	73.7	84.1	319	
Eastern hill	12.6	59.3	64.3	75.9	85.7	956	
Central hill	14.5	40.4	36.8	55.6	65.2	1,563	
Western hill	16.4	44.8	43.8	59.2	72.9	1,513	
Mid-western hill	14.3	50.4	55.2	59.9	75.1	649	
Far-western hill	7.8	67.1	65.9	67.4	83.6	409	
Eastern terai	8.5	39.5	33.9	53.5	64.7	1,873	
Central terai	10.5	47.4	49.9	61.7	73.5	2,415	
Western terai	8.1	32.4	31.4	47.6	59.5	1,147	
Mid-western terai	15.6	53.6	52.1	65.1	78.2	668	
Far-western terai	23.7	58.2	52.5	63.8	75.7	676	
Education							
No education	16.9	63.6	61.3	69.4	83.7	5,045	
Primary	15.8	53.5	51.4	64.0	77.3	2,209	
Some secondary	9.9	37.2	38.7	57.0	67.3	3,088	
SLC and above	3.6	16.5	20.5	41.0	47.9	2,331	
Nealth quintile							
Lowest	21.1	72.1	74.5	76.8	90.1	2,120	
Second	16.3	64.0	62.8	70.0	84.2	2,393	
Middle	13.3	52.0	51.1	62.7	77.4	2,600	
Fourth	10.3	37.6	39.0	57.4	69.3	2,722	
Highest	4.6	17.3	15.1	39.8	46.0	2,839	
Fotal	12.6	46.8	46.6	60.2	72.0	12,674	

Women with five or more children, those employed but not for cash, and those living in rural areas, the mountain zone, the Far-western region, and the Eastern hill subregion were more likely than their counterparts to cite having at least one of these problems in seeking health care for themselves, as were women with no education and women from the poorest households.

## 9.10.1 Awareness and Practice of Health Services in the Government Sector

Women age 15-49 were also asked whether they were aware of the government health incentives to encourage women to use health facilities: free delivery services, and transportation cost for delivering in a government health facility. The vast majority of women are aware of transportation cost encouraging government facility delivery (89 percent) and free delivery services (76 percent) (Table 9.22).

The 2011 NDHS also collected information on whether registration fees were waived for women age 15-49 who visited a government health facility in the 12 months prior to the survey and, among those who were prescribed medicines, whether some or all of the medicines were provided free of cost. Sixty-four percent of women who visited a health facility in the 12 months prior to the survey did not pay registration fees during their visit. In addition, of those who were prescribed medicines, 62 percent received some or all of the medicine free of cost. The government's program seems to be successful in targeting the poorer sectors of the population. Rural women; women living in the mountain zone, Far-western region, and Eastern and Far-western hill subregions; women with less than an SLC; and women in the lowest and second lowest wealth quintiles were more likely than their counterparts to not pay registration fees. A similar pattern is seen for free medicine.

#### Table 9.22 Awareness and practice of health services in government sector

Percentage of women age 15-49 with knowledge on government health incentives; among women who visited a government health facility in the 12 months preceding survey, the percentage who did not pay a registration fee; and among women who visited a government health facility in the past 12 months and were prescribed medicine, the percentage who received some or all of the medicine free of cost, by background characteristics, Nepal 2011

		all women age entage who kno		Among thos government I in the past	health facility	Among those visiting a government health facility in the past 12 months who were prescribed medicine:		
Background characteristic	Free delivery services	Transporta- tion cost for government facility delivery	Number of women	Percentage who did not pay registration fee	Number of women	Percentage who received some or all medicine free of cost	Number of women	
<b>Residence</b> Urban Rural	75.0 76.4	88.7 88.6	1,819 10,855	28.8 68.3	427 3,186	34.2 65.9	335 2,441	
<b>Ecological zone</b> Mountain Hill Terai	86.8 75.1 75.8	95.3 87.2 89.0	805 5,090 6,779	71.4 68.4 57.4	328 1,633 1,652	77.9 66.7 54.5	265 1,214 1,297	
Development region Eastern Central Western Mid-western Far-western	79.8 68.6 72.0 85.6 91.4	90.6 85.6 84.4 94.1 96.9	3,057 4,236 2,660 1,478 1,242	67.3 48.2 68.4 73.1 78.2	902 1,126 703 437 445	64.3 47.2 60.1 75.5 83.2	637 888 516 352 383	
Subregion Eastern mountain Central mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	87.9 78.7 92.7 84.3 71.1 65.7 82.3 92.4 76.4 65.9 80.2 87.5 90.1	95.7 92.2 97.4 92.2 85.8 81.6 90.8 95.8 89.1 84.8 88.1 84.8 88.1 96.3 97.7	229 258 319 956 1,563 1,513 649 409 1,873 2,415 1,147 668 676	74.9 53.3 75.1 81.5 42.8 74.0 77.3 81.3 53.2 51.6 57.4 71.0 73.6	120 54 153 356 438 467 235 139 426 634 236 230	77.3 62.4 83.3 72.9 47.6 67.4 77.9 92.7 54.9 45.6 43.4 68.4 77.2	91 43 131 221 343 357 183 109 325 502 158 106 206	
Mother's education No education Primary Some secondary SLC and above	68.9 77.3 82.4 82.8	85.7 87.9 91.8 91.5	5,045 2,209 3,088 2,331	64.3 67.4 64.8 55.2	1,554 695 810 555	64.0 66.7 61.3 51.9	1,224 511 627 414	
Wealth quintile Lowest Second Middle Fourth Highest Total	70.3 73.7 76.5 80.4 78.4 76.2	84.3 87.2 90.6 90.6 89.5 88.7	2,120 2,393 2,600 2,722 2,839 12,674	80.2 76.3 65.2 51.7 35.1 63.6	708 865 800 687 553 3,613	82.5 69.2 62.5 48.6 42.0 62.1	517 671 637 524 427 2,776	
SLC = School Leaving	-	00.7	12,014	00.0	0,010	02.1	2,110	

## Key Findings:

- The percentage of children age 12-23 months who are fully immunized has doubled in the past 15 years, from 43 percent in 1996 to 87 percent in 2011.
- Five percent of children under age five showed symptoms of acute respiratory infection in the two weeks before the survey, and half of them were taken to a health facility or provider for advice or treatment.
- Nineteen percent of children under five had a fever in the two weeks before the survey, and two-fifths of them were taken to a health facility or provider for advice or treatment.
- Fourteen percent of children under age five had diarrhea in the two weeks before the survey.
- The proportion of children with diarrhea taken to a health provider for advice or treatment has increased over time, from 14 percent in 1996 to 38 percent in 2011.

Nepalese children under age five face multiple obstacles for survival and development. Exposure to infectious diseases, malnutrition, and poor hygiene and sanitation and lack of a healthy environment compromise early childhood development. In addition, a mother's nutritional status during pregnancy and her general well-being impact the health of her child during pregnancy as well as after delivery (Ministry of Health and Population [MOHP], 2004a; BASICS II, The MOST Project, and USAID, 2004).

The Child Health Division of the Ministry of Health and Population (MOHP) has launched several child survival interventions, including various operational initiatives, to improve the health of children in Nepal. These include the Expanded Program on Immunization (EPI), the Community-Based Integrated Management of Childhood Illnesses (CB-IMCI) program, the Community-Based Newborn Care Program (CB-NCP), the Infant and Young Child Feeding program, a micronutrients supplementation program, vitamin A and deworming campaign, and the Community-Based Management of Acute Malnutrition program (MOHP, 2011a).

The EPI was initiated in 1979, following the eradication of smallpox; the Control of Diarrheal Diseases (CDD) Program began in 1982; and the Control of Acute Respiratory Infections (ARI) Program was initiated in 1987. The CDD and ARI programs were merged into the CB-IMCI program in 1998. A comprehensive nutrition program was also introduced in 1979. These child survival interventions were initially launched as vertical programs under the MOHP but were subsequently integrated and brought under the Child Health Division in 1995.

Over the past decade, the country has had success in reducing under-five mortality, largely due to the implementation of the CB-IMCI program with vitamin A supplementation and the immunization program. The MOHP, in an effort to decrease newborn deaths, has incorporated newborn health as an integral component of safe motherhood, endorsing the National Neonatal Health Strategy in 2004. The CB-NCP was developed in 2007 with the goal of improving the health and survival of newborn babies; the program was piloted in 10 districts in 2008-2009 and scaled up to 15 more districts in 2010-2011 (MOHP, 2010a; MOHP, 2011a). The Health Sector Reform Strategy recognizes management of childhood illnesses as a core component of the Essential Health Care Strategy.

This chapter presents findings on several areas of importance relating to child health, including infant birth weight and size at birth; childhood vaccination coverage by timing, source of information on coverage, and background characteristics; prevalence and treatment of ARI symptoms (a proxy for pneumonia); prevalence and treatment of fever; and prevalence of diarrhea, diarrhea treatment, feeding practices during diarrhea, knowledge of oral rehydration salt (ORS) packets, and disposal of children's stools. Information on birth weight or size at birth is important for the design and implementation of programs aimed at reducing neonatal and infant mortality. Vaccination coverage information focuses on the age group 12-23 months (i.e., the typical age by which children should have received all basic vaccinations). Data on differences in vaccination coverage between subgroups of the population aid in program planning. Data on treatment practices and contact with health services among children ill with the three most important childhood illnesses (acute respiratory infection, fever, and diarrhea) help in the assessment of national programs aimed at reducing the mortality impact of these illnesses. Information is provided on the prevalence and treatment of ARIs, including treatment with antibiotics, and the prevalence of fever and its treatment with antimalarial drugs and antibiotics. Data on the treatment of diarrheal disease with oral rehydration therapy and increased fluids help in the assessment of programs that recommend such treatments. Because sanitary practices can help prevent and reduce the severity of diarrheal disease, information is also provided on disposal of children's fecal matter. The information on child health presented in this chapter pertains only to children born during the five years preceding the survey unless otherwise specified.

## **10.1** CHILD'S WEIGHT AND SIZE AT BIRTH

A child's birth weight or size at birth is an important indicator of the child's vulnerability to the risk of childhood illnesses and chances of survival. Children whose birth weight is less than 2.5 kilograms or children reported to be "very small" or "smaller than average" are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight was recorded in the questionnaire if available from either a written record or the mother's recall. Since birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was also obtained. Such estimates, even though subjective, can be a useful proxy for the weight of the child.

Table 10.1 presents information on children's weight and size at birth according to background characteristics. Thirty-six percent of children born in the past five years were weighed at birth. This is not surprising given that the majority of births do not take place in a health facility, and children are less likely to be weighed at birth in a non-institutional setting. Among children born in the five years before the survey with a reported birth weight, 12 percent were of low birth weight (less than 2.5 kg).

There is little difference in the percentage of children of low birth weight by birth order, mother's smoking status, mother's age at birth, or urban-rural residence. However, there are differences by ecological zone and development region. The percentage of low birth weight children varies from a high of 15 percent in the mountain zone to 13 percent in the hill zone and 12 percent in the terai. The percentage is highest in the Eastern region (16 percent) and lowest in the Central region (9 percent). Children in the Central mountain subregion (21 percent) are most likely to be of low birth weight, while children in the Central terai (6 percent) are least likely. Children of women with a primary education are more likely to be of low birth weight (16 percent) and children of mothers with no education less likely (10 percent). Children in the lowest wealth quintile are more likely to be of low birth weight (17 percent) than children in the other quintiles.

In the absence of birth weight, a mother's subjective assessment of the size of the baby at birth may be a useful proxy. Four percent of children were reported to be very small at birth, 12 percent were reported to be smaller than average, and 84 percent were reported to be average or larger in size. The differences in children's size by background characteristics followed a pattern similar to that observed for reported birth weight. Children living in the mountain zone were more likely to be reported as very small or smaller than average than children living in the hill zone and terai, and children living in the Mid-western hill subregion were most likely to be reported as being smaller than average. Children of mothers with no education and those from households in the lowest wealth quintile were more likely to be reported as very small or smaller than average than their counterparts.

#### Table 10.1 Child's weight and size at birth

Percentage of live births in the five years preceding the survey that have a reported birth weight; among live births in the five years preceding the survey with a reported birth weight, percent distribution by birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Nepal 2011

	Percentage of all births that	births with	stribution of a reported veight <sup>1</sup>			Perc		ion of all live b child at birth	pirths		
Background characteristic	have a reported birth weight <sup>1</sup>	Less than 2.5 kg	2.5 kg or more	Total	Number of births	Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	42.6	13.4	86.6	100.0	470	4.7	13.4	81.9	0.0	100.0	1,101
20-34	36.0	12.1	87.9	100.0	1,407	3.2	12.0	84.7	0.1	100.0	3,910
35-49	20.6	12.3	87.7	100.0	78	5.5	12.1	81.9	0.5	100.0	380
Birth order											
1	54.0	12.7	87.3	100.0	989	3.7	13.7	82.6	0.0	100.0	1,833
2-3	33.3	12.3	87.7	100.0	789	3.8	10.7	85.4	0.1	100.0	2,368
4-5	16.9	11.8	88.2	100.0	131	2.4	12.4	84.8	0.3	100.0	773
6+	(11.0)	(11.3)	(88.7)	100.0	46	4.9	14.8	79.8	0.5	100.0	417
Mother's smoking status											
Smokes cigarettes/tobacco	9.7	12.9	87.1	100.0	46	5.4	18.1	75.9	0.7	100.0	475
Does not smoke	38.8	12.4	87.6	100.0	1,909	3.5	11.7	84.7	0.1	100.0	4,917
Residence											
Urban	71.2	12.0	88.0	100.0	358	4.0	11.6	84.3	0.0	100.0	503
Rural	32.7	12.5	87.5	100.0	1,597	3.6	12.3	83.9	0.1	100.0	4,888
Ecological zone											
Mountain	18.0	14.6	85.4	100.0	77	4.7	16.3	79.0	0.0	100.0	428
Hill	32.8	12.8	87.2	100.0	700	4.2	13.9	81.7	0.2	100.0	2,130
Terai	41.6	12.1	87.9	100.0	1,179	3.1	10.4	86.4	0.1	100.0	2,833
Development region											
Eastern	41.5	15.8	84.2	100.0	527	5.1	11.2	83.8	0.0	100.0	1,269
Central	35.1	9.1	90.9	100.0	603	2.3	9.4	88.1	0.2	100.0	1,717
Western	39.0	10.8	89.2	100.0	392	2.3	10.9	86.5	0.2	100.0	1,007
Mid-western	29.8	14.1	85.9	100.0	236	5.8	17.0	77.1	0.1	100.0	793
Far-western	32.5	14.9	85.1	100.0	196	3.8	18.8	77.3	0.0	100.0	605
Subregion											
Eastern mountain	20.7	11.9	88.1	100.0	21	6.2	14.4	79.4	0.0	100.0	101
Central mountain	25.3	21.1	78.9	100.0	24	4.7	16.6	78.7	0.0	100.0	96
Western mountain	13.7	11.3	88.7	100.0	32	4.0	17.0	79.0	0.0	100.0	230
Eastern hill	28.0	14.6	85.4	100.0	117	6.1	13.7	80.2	0.0	100.0	416
Central hill	47.6	12.8	87.2	100.0	236	4.6	11.0	84.1	0.3	100.0	495
Western hill	31.6	10.0	90.0	100.0	191	2.4	11.4	85.9	0.3	100.0	604
Mid-western hill	26.7	12.2	87.8	100.0	98	4.7	19.1	76.2	0.0	100.0	367
Far-western hill	23.4	19.1	80.9	100.0	58	3.8	18.7	77.5	0.0	100.0	247
Eastern terai	51.8	16.4	83.6	100.0	389	4.4	9.3	86.3	0.0	100.0	752
Central terai Western terai	30.5 50.0	5.8	94.2 88.4	100.0 100.0	343 201	1.1 2.2	8.1 10.3	90.7 87.5	0.2 0.0	100.0 100.0	1,126 402
Mid-western terai	50.0 39.6	11.6 15.7	88.4 84.3	100.0	201	2.2	10.3	87.5 77.4	0.0	100.0	402 301
Far-western terai	49.9	13.6	86.4	100.0	126	5.1	18.3	76.6	0.3	100.0	252
Mother's education No education	19.1	9.8	90.2	100.0	487	3.7	14.3	81.7	0.3	100.0	2,550
Primary	32.4	9.8 16.4	90.2 83.6	100.0	487	3.7	14.3	85.5	0.3	100.0	2,550
Some secondary	32.4 55.5	10.4	83.6	100.0	350 577	3.6	10.8	86.1	0.0	100.0	1,079
SLC and above	74.9	12.7	87.9	100.0	542	3.4	10.2	86.3	0.0	100.0	723
Wealth guintile											
Lowest	11.8	16.8	83.2	100.0	165	5.3	15.4	79.1	0.3	100.0	1,390
Second	23.0	12.0	88.0	100.0	272	3.3	12.8	83.9	0.0	100.0	1,390
Middle	23.0 35.8	12.0	88.0 87.9	100.0	406	3.3 2.3	12.8	83.9 85.5	0.0	100.0	1,182
Fourth	54.9	12.1	88.2	100.0	515	3.1	10.9	85.8	0.1	100.0	938
Highest	79.8	12.2	87.8	100.0	597	3.7	7.7	88.5	0.2	100.0	748
-											
Total	36.3	12.4	87.6	100.0	1,955	3.6	12.3	84.0	0.1	100.0	5,391

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Based on either a written record or the mother's recall SLC = School Leaving Certificate

## **10.2 VACCINATION COVERAGE**

The National Immunization Program (at the time known as the Expanded Program on Immunization) was initiated in 1979 in three districts with only two antigens (BCG and DPT) and was rapidly expanded to include all 75 districts with all six recommended antigens (BCG; diphtheria, pertussis, and tetanus [DTP]; oral polio vaccine [OPV]; and measles) by 1988. In 2003, the monovalent hepatitis B (HepB) vaccine was introduced, which was later administered as a single tetravalent (DPT-HepB) injection. In 2009, a vaccination against *Haemophilus influenzae* type B (Hib) was introduced in phases in the country. Likewise, in 2009, the Japanese encephalitis (JE) vaccine was introduced into the routine immunization program in 16 JE-endemic districts following JE mass vaccination campaigns. All children should receive the suggested number of doses of BCG, DPT-HepB-Hib, OPV, and measles vaccines during their first year of life. Similarly, all women of childbearing age should complete five doses of TT vaccine during their reproductive life. All of the vaccines in the routine immunization schedule are provided free of cost in all public health facilities in Nepal (MOHP, 2011a; MOHP, 2011b).

Universal immunization of children against the six vaccine-preventable diseases-tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles—is crucial to reducing infant and child mortality. Data on differences in immunization coverage among subgroups of the population are useful for program planning and targeting resources to areas most in need. Additionally, information on immunization coverage is important for the monitoring and evaluation of the EPI.

The 2011 NDHS collected information on immunization coverage for all living children born in the five years preceding the survey. According to WHO guidelines, children are considered fully immunized when they have received one dose of the vaccine against tuberculosis (BCG), three doses each of the DPT and polio vaccines, and one dose of measles vaccine. BCG is given at birth or at first clinical contact; DPT and polio require three doses at approximately 6, 10, and 14 weeks of age; and measles vaccine is given soon after 9 months of age.

In the 2011 NDHS, as in previous NDHS surveys, information on immunization coverage was collected in two ways: from immunization cards shown to the interviewer and from mothers' reports. If the cards were available, the interviewer copied the immunization dates directly onto the questionnaire. When there was no immunization card, or if a vaccine had not been recorded on the card as being administered, the respondent was asked to recall the specific vaccines given to her child.

Information on vaccination coverage among children age 12-23 months is shown in Table 10.2 by source of information (i.e., vaccination record or mother's report). This is the youngest cohort of children who have reached the age by which they should be fully immunized. Overall, 87 percent of children age 12-23 months were fully immunized by the time of the survey. With regard to specific vaccines, 97 percent of children age 12-23 months had received the BCG immunization and 88 percent had been immunized against measles. Coverage of the first dose of the DPT and polio vaccines was relatively high (96 percent and 97 percent, respectively); however, only 92 percent and 93 percent of these children went on to receive the third dose of DPT and polio, respectively, contributing to a dropout of 5 percent and 4 percent between the first and third dose of the DPT and polio vaccines, respectively. There are minimal differences between DPT and polio vaccine coverage because these vaccines are administered at the same time. The findings show that 3 percent of children 12-23 months did not receive any vaccine at all.

#### Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Nepal 2011

Source of information	BCG	DPT 1 <sup>1</sup>	DPT 2 <sup>1</sup>	DPT 3 <sup>1</sup>	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina- tions <sup>2</sup>	No vaccina- tions	Number of children
Vaccinated at any time before survey											
Vaccination card	33.7	33.8	33.6	32.5	33.8	33.6	32.5	31.0	30.7	0.0	339
Mother's report	62.8	62.6	61.0	59.2	62.7	61.3	60.0	57.0	56.3	2.9	661
Either source	96.5	96.4	94.6	91.7	96.6	94.9	92.5	88.0	87.0	2.9	1,000
Vaccinated by 12 months of age <sup>3</sup>	96.5	96.4	94.5	91.4	96.6	94.8	92.1	82.3	80.7	2.9	1,000

<sup>1</sup> DPT vaccinations include DPT/HepB as well as DPT/HepB/Hib.

<sup>2</sup> BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth) <sup>3</sup> For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.

#### 10.3 VACCINATION BY BACKGROUND CHARACTERISTICS

Table 10.3 shows the percentage of children age 12-23 months who received specific vaccines at any time before the survey according to background characteristics. Boys are slightly more likely than girls to be fully immunized (88 percent versus 86 percent). Birth order varies inversely with immunization coverage; as birth order increases, immunization coverage generally decreases. Ninety-one percent of first-born children have been fully immunized, compared with 60 percent of children of birth order six and above.

### Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Nepal 2011

Background characteristic	BCG	DPT 1 <sup>1</sup>	DPT 2 <sup>1</sup>	DPT 3 <sup>1</sup>	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina- tions <sup>2</sup>	No vaccina- tions	Percent- age with a vaccina- tion card seen	Number of children
Sex												
Male Female	96.9 96.2	96.2 96.6	94.5 94.7	92.1 91.3	96.4 96.7	95.1 94.8	92.9 92.0	89.7 86.3	88.2 85.7	2.8 3.0	37.6 30.2	501 499
Birth order												
1 2-3	98.8 96.7	99.1 96.2	97.7	94.2 92.5	99.0 96.3	97.6 95.1	95.4 93.0	92.3 89.2	91.1 88.3	0.8 3.1	35.4 34.3	348 469
2-3 4-5	96.7 98.5	96.2 97.6	94.8 95.0	92.5 93.9	96.3 97.6	95.1 95.0	93.0 93.9	89.2 86.2	86.2	3.1 1.5	34.3 34.5	469
6+	81.6	83.4	78.2	71.6	85.0	80.9	73.2	63.1	59.6	14.3	23.1	74
Residence												
Urban	98.0	99.5	95.5	94.9	100.0	96.9	96.7	91.8	90.0	0.0	38.7	97
Rural	96.4	96.1	94.5	91.4	96.2	94.7	92.0	87.6	86.6	3.2	33.4	903
Ecological zone	00 7	00 7	00.4	00.4	04.0	04.4	04.4	00.0	00.0	4.0	05.0	75
Mountain Hill	93.7 96.3	93.7 96.5	90.4 95.4	90.4 93.4	94.3 96.3	91.1 95.7	91.1 93.5	90.9 90.4	88.2 89.5	4.3 3.2	25.9 35.1	75 402
Terai	97.1	96.7	94.6	90.6	97.0	94.9	91.9	85.8	84.8	2.5	34.1	523
Development region												
Eastern	98.1	96.9	95.1	93.8	96.9	95.1	94.1	87.9	87.7	1.6	40.7	229
Central Western	96.1 97.3	96.4 97.3	93.2 97.3	89.1 94.0	96.4 97.9	93.6 97.9	90.9 94.6	84.6 91.2	83.1 91.2	3.6 2.1	26.2 40.6	345 187
Mid-western	97.3 91.4	97.3 91.8	97.3	94.0 87.7	97.9 92.0	97.9 90.7	94.6 87.5	91.2 87.4	91.2 84.7	2.1 6.7	28.2	138
Far-western	100.0	100.0	99.5	97.1	100.0	99.5	97.1	94.9	93.7	0.0	39.7	101
Subregion												
Eastern mountain	98.0	98.0	98.0	98.0	98.0	98.0	98.0	97.4	97.4	2.0	40.8	17
Central mountain Western mountain	(95.0) 91.3	(95.0) 91.3	(92.5) 86.3	(92.5) 86.3	(95.0) 92.5	(92.5) 87.5	(92.5) 87.5	(92.5) 87.5	(92.5) 82.5	(5.0) 5.0	(37.0) 15.0	17 41
Eastern hill	91.3	97.4	95.6	95.6	92.5 97.4	95.6	95.6	90.4	90.4	1.3	35.8	78
Central hill	97.1	98.3	95.9	94.2	98.3	97.1	95.4	92.5	89.6	1.7	46.1	94
Western hill	97.0	97.0	97.0	93.9	97.0	97.0	93.9	91.7	91.7	3.0	36.7	127
Mid-western hill	88.8	90.0	88.8	86.3	88.8	88.8	85.0	83.8	82.5	10.0	23.7	64
Far-western hill Eastern terai	100.0 97.8	100.0 96.5	100.0 94.4	97.0 92.2	100.0 96.5	100.0 94.4	97.0 92.6	91.8 85.2	91.8 84.8	0.0 1.7	20.9 43.6	38 133
Central terai	95.7	95.7	92.2	86.8	90.5 95.7	92.2	89.0	80.9	79.8	4.3	17.5	234
Western terai	98.0	98.0	98.0	94.1	100.0	100.0	96.1	90.2	90.2	0.0	48.9	60
Mid-western terai	97.9	97.3	97.3	94.1	98.4	97.9	94.1	95.2	93.6	1.6	42.2	52
Far-western terai	100.0	100.0	100.0	97.2	100.0	100.0	97.2	96.7	93.9	0.0	63.3	44
Mother's education No education	94.3	94.1	90.5	85.8	94.3	91.2	86.9	79.6	78.1	4.5	26.7	452
Primary	98.1	98.1	97.9	95.3	98.1	97.9	96.5	96.3	94.6	1.9	31.8	200
Some secondary	98.6	98.6	98.3	97.4	98.7	98.5	97.4	95.2	95.2	1.3	43.4	211
SLC and above	98.3	98.3	97.5	97.1	98.3	97.5	97.5	92.8	92.4	1.7	45.9	137
Wealth quintile	04.0	01.0	04.0	07.0	00.0	00.0	00 F	00.0	045	- 4	00.0	0.47
Lowest Second	94.2 97.3	94.0 96.3	91.8 93.5	87.6 89.7	93.9 96.8	92.0 94.0	88.5 90.2	86.0 85.2	84.5 83.9	5.1 2.0	28.6 27.1	247 227
Middle	97.3 94.4	96.3 94.4	93.5 94.4	89.7 90.5	96.8 94.4	94.0 94.4	90.2 91.6	85.2 85.2	83.9 84.0	2.0 5.6	31.8	227
Fourth	98.9	99.9	96.7	96.7	100.0	97.5	97.4	92.2	91.5	0.0	41.8	183
Highest	100.0	100.0	99.5	98.4	100.0	99.5	98.8	96.1	95.7	0.0	48.6	126
Total	96.5	96.4	94.6	91.7	96.6	94.9	92.5	88.0	87.0	2.9	33.9	1,000

Note: Figures in parentheses are based on 25-49 unweighted cases. <sup>1</sup> DPT vaccinations include DPT/HepB as well as DPT/HepB/Hib.

2 BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth) SLC = School Leaving Certificate

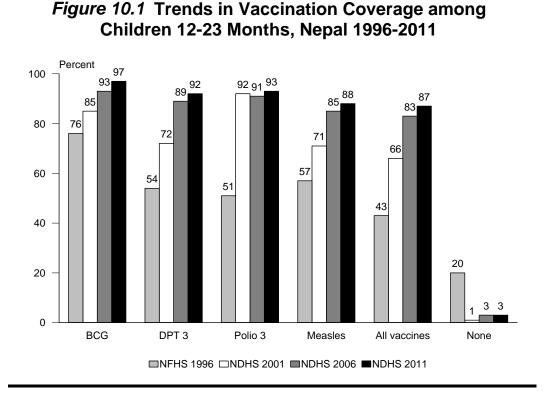
Urban-rural differences in immunization coverage are small, with children residing in urban areas slightly more likely to be fully immunized (90 percent) than children in rural areas (87 percent). There are differences in coverage by ecological zone, with 85 percent of children fully immunized in the terai, compared with 90 percent in the hill zone and 88 percent in the mountain zone. Coverage ranges from a low of 83 percent among children living in the Central region to a high of 94 percent among children living in the Far-western region. Children living in the Eastern mountain subregion are most likely to be fully immunized (97 percent), and children in the Central terai subregion are least likely (80 percent).

There are marked differences in immunization coverage between children of women with no education (78 percent) and children of women in the other education groups (above 90 percent). Children in households in the highest wealth quintile (96 percent) are much more likely to be fully immunized than those in lower three wealth quintiles (less than 85 percent).

Table 10.3 also shows that an immunization card was seen for 34 percent of children age 12-23 months. Cards were most likely to have been seen for boys (38 percent), first-order births (35 percent), children living in urban areas (39 percent), children living in the hill zone, children living in the Western and Eastern regions (41 percent each), children living in the Far-western terai subregion (63 percent), children of mothers with a School Leaving Certificate (SLC) or higher education (46 percent), and children of mothers in the highest wealth quintile (49 percent).

# **10.4 TRENDS IN IMMUNIZATION COVERAGE**

Trends in immunization coverage over the past 15 years can be seen by comparing similarly collected data from the 1996 NFHS, 2001, 2006, and 2011 NDHS. Immunization coverage in Nepal has improved over the past 15 years, doubling from 43 percent in 1996 to 87 percent in 2011 (Figure 10.1). The percentage of children age 12-23 months who did not receive any of the six basic immunizations decreased from 20 percent to 3 percent over the same period. A marked increase in the coverage of polio vaccine was observed between 1996 and 2001, with little change thereafter.



# **10.5** Acute Respiratory Infection

The Ministry of Health and Population recognizes acute respiratory infections as a major public health problem among children under age five (MOHP, 2011a). The CB-IMCI program is an integrated package that addresses the management of diseases such as pneumonia, diarrhea, malaria, and measles, as well as malnutrition, among children age 2 months to 5 years. The program follows WHO guidelines on standard ARI case management. Accordingly, all ARI cases assessed by health workers are classified into one of the following categories: severe or very severe pneumonia, pneumonia, or no pneumonia (cough and cold). The program recognizes the important role of mothers and other caretakers in identifying the difference between the need for home care in the case of cough and cold symptoms that do not result in pneumonia and the need for referral to health facilities in the case of severe pneumonia.

ARIs are a leading cause of childhood morbidity and mortality in Nepal. Early diagnosis and treatment with antibiotics can reduce the number of deaths caused by ARIs, particularly deaths resulting from pneumonia. Pneumonia has emerged as the leading cause of death among children under age five in Nepal (MOHP, New ERA, and Macro International Inc., 2007). In 1995, a community-based ARI intervention program was initiated, with assistance from WHO, UNICEF, and USAID, to increase accessibility to care and reduce mortality resulting from pneumonia. Under this program, female community health volunteers (FCHVs) are trained to diagnose pneumonia and to treat infected children at the ward level with the antibiotic (paediatric cotrimoxazole). In the 2011 NDHS, the prevalence of ARI symptoms was estimated by asking mothers whether, in the two weeks preceding the survey, their children under age five had been ill with a cough accompanied by short, rapid breathing and difficulty breathing as a result of a problem in the chest. These symptoms are consistent with conditions leading to pneumonia. It should be noted that the data collected on ARI symptoms are subjective because they are based on a mother's perception of the illness without validation by medical personnel.

Table 10.4 shows that 5 percent of children under five years of age exhibited symptoms of ARI in the two weeks preceding the survey. Prevalence of ARI symptoms varied by age of the child. Children age 6-23 months were more likely to have symptoms of ARI (8 percent) than children in the other age groups. Children from the hill zone and the Western development region were most likely to exhibit symptoms of ARI. Symptoms were least likely to be reported for children in the highest wealth quintile (2 percent), with little difference among children in the other wealth quintiles (about 5 percent).

Half of children with symptoms of ARI were taken to a health facility or health provider. Seven percent of children with ARI symptoms received antibiotics. Due to the small number of cases, these data are not shown by background characteristics. There has been an increase in the past 15 years in the proportion of cases in which treatment is sought from a health facility for symptoms of pneumonia (from 18 percent in 1996 to 50 percent in 2011).

## 10.6 FEVER

Fever is a major manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and morbidity. While fever can occur year-round, malaria is more prevalent following the end of the rainy season, particularly in the terai, inner terai, and basins of the hill districts of Nepal, where the climatic conditions are more favorable to malaria transmission. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Since malaria is a major contributory cause of death in infancy and childhood in many developing countries, presumptive treatment of fever with antimalarial medication is advocated in many countries where malaria is endemic. The 2011 NDHS fieldwork was carried out from February to mid-June 2011, before and during the rainy season.

#### Table 10.4 Prevalence of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, according to background characteristics, Nepal 2011

	Among children under age five:				
Background characteristic	Percentage with symptoms of ARI <sup>1</sup>	Number of children			
Age in months					
<6	3.9	531			
6-11 12-23	7.5 7.9	491 1,000			
24-35	4.1	1,013			
36-47	3.6	1,106			
48-59	2.1	999			
Sex					
Male	4.6 4.7	2,649			
Female	4.7	2,490			
Mother's smoking status Smokes cigarettes/tobacco	4.6	450			
Does not smoke	4.6	4,690			
Cooking fuel		,			
Electricity or gas	3.5	764			
Wood/straw <sup>2</sup>	4.9	4,009			
Animal dung	3.5	332			
Residence		100			
Urban Rural	4.9 4.6	483 4,656			
	4.0	4,000			
Ecological zone Mountain	3.1	400			
Hill	5.2	2,033			
Terai	4.4	2,707			
Development region					
Eastern	3.6	1,210			
Central Western	3.6 6.5	1,639 965			
Mid-western	5.7	760			
Far-western	5.5	565			
Mother's education					
No education	4.4	2,410			
Primary	5.0	1,032			
Some secondary SLC and above	5.2 4.1	995 703			
Wealth quintile					
Lowest	4.7	1,322			
Second	4.7	1,121			
Middle	5.4	1,071			
Fourth	5.6 2.1	899 726			
Highest					
Total	4.6	5,140			

Note: Total includes 19 children living in households using kerosene, 14 children living in households using coal/lignite/ charcoal, and 1 child living in a household where no food is cooked who are not shown separately.

<sup>1</sup> Symptoms of ARI (cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related) are considered a proxy for pneumonia. <sup>2</sup> Includes grass, shrubs, and crop residues SLC = School Leaving Certificate

Table 10.5 shows the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by selected background characteristics. Nineteen percent of children under five were reported to have had fever in the two weeks preceding the survey. Fever prevalence varied by age of the child. Children age 6-23 months were more prone to have fever (24-30 percent) than other children.

#### Table 10.5 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who received antibiotics as treatment, by background characteristics, Nepal 2011

	Among children u	under age five:	Among children under age five with fever:				
Background characteristic	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider <sup>1</sup>	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children	
Age in months							
<6	17.1	531	34.2	1.8	29.4	91	
6-11	29.7	491	45.9	0.0	34.4	146	
12-23	24.2	1,000	46.2	1.5	38.1	242	
24-35	19.3	1,013	39.4	0.0	28.8	195	
36-47	15.0	1,106	40.1	0.0	30.7	166	
48-59	11.9	999	40.8	0.0	23.0	119	
Sex							
Male	20.5	2,649	42.5	0.9	32.1	543	
Female	16.7	2,490	41.1	0.1	31.1	417	
Residence							
Urban	18.9	483	55.6	0.6	41.2	91	
Rural	18.7	4,656	40.5	0.6	30.6	869	
Ecological zone							
Mountain	14.7	400	43.0	0.0	27.6	59	
Hill	17.0	2,033	37.5	0.2	31.0	345	
Terai	20.6	2,707	44.5	0.8	32.5	557	
Development region							
Eastern	17.8	1,210	50.7	0.3	26.9	216	
Central	18.6	1,639	35.3	0.0	34.6	305	
Western	23.3	965	37.9	1.0	36.1	225	
Mid-western	16.1	760	44.8	2.0	32.8	122	
Far-western	16.2	565	49.1	0.0	20.5	91	
Subregion							
Eastern mountain	12.5	96	(71.4)	(0.0)	(21.8)	12	
Central mountain	20.9	92	(44.4)	(0.0)	(41.4)	19	
Western mountain	12.9	212	29.6	0.0	20.4	27	
Eastern hill	17.7	394	37.5	0.0	24.3	70	
Central hill	15.7	477	37.4	0.0	34.4	75	
Western hill	21.2	576	40.5	0.0	35.8	122	
Mid-western hill	13.5	355	32.0	1.7	33.2	48	
Far-western hill	12.8	231	34.5	0.0	15.0	29	
Eastern terai	18.6	720	55.7	0.4	28.7	134	
Central terai	19.7	1,070	33.8	0.0	34.1	211	
Western terai	26.4	390	34.8	2.3	36.4	103	
Mid-western terai	19.9	291	61.9	2.9	38.1	58	
Far-western terai	21.4	237	59.4	0.0	21.3	51	
Mother's education							
No education	16.9	2,410	33.4	0.9	27.6	407	
Primary	18.4	1,032	43.4	0.0	27.7	190	
Some secondary	23.5	995	53.7	0.0	39.0	233	
SLC and above	18.4	703	45.3	1.3	37.0	129	
Wealth quintile							
Lowest	13.4	1,322	29.8	0.3	22.5	177	
Second	19.4	1,121	38.2	0.4	30.0	217	
Middle	20.8	1,071	44.7	1.1	28.2	223	
Fourth	23.7	899	50.1	0.8	45.2	213	
Highest	18.0	726	46.4	0.0	30.6	131	
	18.7	5,140	41.9	0.6	31.6	960	

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Excludes pharmacy, shop, and traditional practitioner SLC = School Leaving Certificate

Fever is more prevalent among male children (21 percent) than female children (17 percent). In addition, the prevalence of fever is higher among children residing in the terai and hill zone than among children in the mountain zone, and this is particularly true in the Western region and Western terai subregion. Fever prevalence is highest among children of mothers with some secondary education and children living in households in the fourth wealth quintile.

Forty-two percent of children with fever were taken to a health facility or provider for treatment. Children age 6-23 months, male children, and children of mothers with some secondary education were more likely than other children to be taken to a health facility or provider for treatment of fever. Also, children living in urban areas, in the terai and mountain zones, in the Eastern development region, and in the Mid-western terai were more likely than children living elsewhere to be taken for treatment. The percentage of children with fever taken to a health facility or provider varied significantly by wealth quintile; children from the poorest households were least likely to be taken for treatment, and children from the fourth wealth quintile were most likely.

Table 10.5 also shows that 32 percent of children with fever received antibiotics. Children age 12-23 months, children residing in urban areas, and those living in the terai and hill zones, Western region, and Midwestern terai subregion were more likely than other children to receive antibiotic treatment. Furthermore, children of mothers with some secondary education and those living in households in the fourth wealth quintile were more likely to receive antibiotics for fever than their counterparts. Less than 1 percent of children received antimalarial drugs. The percentage of children with fever for whom medical care is sought from a health facility or provider has increased steadily over the past 15 years (from 18 percent in 1996 to 24 percent in 2001, 34 percent in 2006, and 42 percent in 2011).

## 10.7 DIARRHEA

Diarrhea continues to be a major cause of childhood morbidity and mortality in Nepal (MOHP, 2011a). The 2006 NDHS showed that 12 percent of children under five years suffer from diarrhea, and 5 percent die due to the condition (MOHP, New ERA, and Macro International, 2007).

The 2011 NDHS asked mothers of children born during the five years preceding the survey a series of questions about episodes of diarrhea suffered by their children in the two weeks before the survey, including questions on feeding practices during diarrhea, treatment of the condition, and their knowledge and use of ORS.

Table 10.6 shows the percentage of children under five years with diarrhea in the two weeks preceding the survey, by selected background characteristics. Overall, 14 percent of all children under five had diarrhea, with 2 percent having diarrhea with blood. As there are seasonal variations in the prevalence of diarrhea, the percentages shown in Table 10.6 may not reflect the situation throughout the year. It is noteworthy to point out that the 2011 NDHS was fielded from February to June, whereas the period of high diarrhea prevalence is April to August. Thus, the prevalence of diarrhea may be understated since the survey did not cover the entire duration of the high prevalence period. Children age 6-23 months are most susceptible to diarrhea. The prevalence of bloody diarrhea is highest among children age 12-23 months, and children living in the Midwestern region, particularly the Mid-western terai.

Children of mothers with an SLC and higher and those in the highest wealth quintile are less likely than others to suffer from diarrhea. The prevalence of diarrhea is higher among children living in households with non-improved toilet facilities than in households with improved toilet facilities that are not shared.

#### Table 10.6 Prevalence of diarrhea

Percentage of children under age five who had diarrhea in the two weeks preceding the survey, by background characteristics, Nepal 2011

		he two weeks the survey	
Background characteristic	All diarrhea	Diarrhea with blood	Number of children
Age in months			
<6	12.9	0.8	531
6-11	24.1	1.2	491
12-23 24-35	23.9 14.2	5.0 2.0	1,000 1,013
36-47	8.2	1.3	1,106
48-59	5.2	1.2	999
Sex			
Male	15.5	2.5	2,649
Female	12.0	1.7	2,490
Source of drinking water <sup>1</sup>	10.0		
Improved	13.9	1.9	4,442
Not improved	13.2	3.0	698
Toilet facility <sup>2</sup>	40.0	47	4
Improved, not shared	12.2	1.7	1,557
Non-improved or shared	14.6	2.2	3,583
Residence	10.4	10	400
Urban	13.4	1.6	483
Rural	13.9	2.1	4,656
Ecological zone Mountain	13.4	2.9	400
Hill	12.7	2.9	2,033
Terai	14.8	1.9	2,707
Development region			
Eastern	11.6	1.1	1,210
Central	14.9	1.6	1,639
Western	15.7	2.2	965
Mid-western	14.6	4.2	760
Far-western	11.4	2.5	565
Subregion	10.0		
Eastern mountain	10.8	1.5	96
Central mountain	12.8	2.9	92
Western mountain	14.9	3.6	212
Eastern hill Central hill	10.8 11.2	1.6 1.2	394 477
Western hill	14.1	1.2	576
Mid-western hill	14.1	4.1	355
Far-western hill	13.1	2.2	231
Eastern terai	12.1	0.8	720
Central terai	16.7	1.6	1,070
Western terai	17.9	2.7	390
Mid-western terai	14.7	4.6	291
Far-western terai	8.8	2.3	237
Mother's education			
No education	14.4	2.8	2,410
Primary	13.9	2.4	1,032
Some secondary SLC and above	14.8 10.5	1.1 0.5	995 703
Wealth guintile			
Lowest	12.6	3.1	1,322
Second	14.4	2.5	1,121
Middle	16.9	2.1	1,071
Fourth	12.8	1.2	899
Highest	11.9	0.7	726
Total	13.8	2.1	5,140

<sup>2</sup> See Table 2.2 for definition of categories

SLC = School Leaving Certificate

#### 10.8 **DIARRHEA TREATMENT**

The CB-IMCI program, under the Child Health Division, focuses on the management of diarrheal diseases among children under five years. Nepal became one of the first few countries in the region to create a zinc task force and to include zinc in the treatment protocol of diarrhea along with ORS and oral rehydration therapy (ORT) (Wang et al., 2011). USAID/Nepal, through the Nepal Family Health Project and UNICEF, supported the promotion of treatment of childhood diarrhea with both ORS/ORT and zinc. In addition, USAID/Nepal funded the global Social Marketing for Diarrheal Disease Control Plus: Point-of-Use Water Disinfection and Zinc Treatment (POUZN) Project, which was implemented by Abt Associates in partnership with Population Services International and has targeted 30 districts in Nepal (MacDonald and Mitchell, 2009). The first phase covered three districts in Kathmandu Valley, and the second phase had covered 27 additional districts by 2008.

The government has a standard diarrhea case management strategy including ORT, counseling on continued feeding, and zinc tablets provided through health institutions. ORT services have been established in all hospitals, primary health care centers, health posts, and sub-health posts throughout the country. Health facilities and community health volunteers serve as the primary health providers in treating diarrhea with ORS and zinc supplementation. The national program on promotion of salt-sugar solutions as a treatment strategy was abandoned because, apart from possible difficulties in obtaining the ingredients, preparation was often imprecise and resulted in ineffective or sometimes dangerous solutions (BASICS II, The MOST Project, and USAID, 2004). ORT thus includes fluids prepared from lower osmolar ORS packets and is referred as such in this section. Caution should be exercised in comparing the 2011 NDHS results with the findings of previous NDHS surveys, in which the definition of ORT did not include increased fluids.

In the 2011 NDHS, mothers of children who had diarrhea were asked about what was done to treat the illness. Table 10.7 shows the percentage of children with diarrhea who received specific treatments according to background characteristics. Thirty-eight percent of children with diarrhea were taken to a health provider. Children age 6-11 months, male children, children with bloody diarrhea, urban children, children living in the Far-western region were more likely than their counterparts to be taken to a health facility for treatment, as were children of mothers with some secondary education and children from households in the fourth wealth quintile.

Thirty-nine percent of children were treated with ORS, 14 percent were given increased fluids, and 50 percent were given either ORS or increased fluids. Six percent were treated with zinc, and 5 percent were treated with zinc and ORS. Although not a preferred treatment, 2 percent were treated with anti-motility drugs.

Thirteen percent of children with diarrhea were given antibiotic drugs, 13 percent were given other pills or syrups, 13 percent were given unknown pills or syrups, and 4 percent were treated with home remedies. However, about one-third (30 percent) of children with diarrhea did not receive any treatment at all.

Use of ORS or increased fluids varies by age, from a low of 20 percent among children less than age 6 months to a high of 60 percent among children age 12-23 months. Use of ORS or increased fluids is more common among male than female children. There are differences in the use of ORS or increased fluids according to urban (55 percent) and rural (50 percent) residence and ecological zone (with the proportion ranging from 46 percent in the mountain zone to 54 percent in the hill zone). Use varies by region as well, ranging from 43 percent in the Central region to 61 percent in the Eastern region. Use of ORS or increased fluids is much higher among children of mothers with an SLC and above than among women with a primary education. Use of ORS or increased fluids ranges from a low of 44 percent among children in the middle wealth quintile to a high of 62 percent among children in the fourth wealth quintile.

The proportion of children with diarrhea taken to a health provider for treatment has increased over time, from 14 percent in 1996 to 21 percent in 2001, 27 percent in 2006, and 38 percent in 2011. Twenty-four percent of children with diarrhea are taken to government health facilities, and 23 percent are taken to private pharmacies; about 3 percent are taken to an FCHV for treatment (data not shown).

#### Table 10.7 Diarrhea treatment

Among children under age five who had diarrhea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration salts (ORS), the percentage given increased fluids, the percentage given ORS or increased fluids, and the percentage who were given other treatments, by background characteristics, Nepal 2011

Background characteristic	Percent- age of children with diarrhea for whom advice or treatment was sought from a health facility or provider <sup>1</sup>	Fluid from ORS packets	Increased	ORS or increased fluids	Zinc and ORS	Zinc supple- ments	Anti- biotic drugs	Anti- motility drugs	Other pill or syrup	Unknown pill or syrup	Non-anti- biotic injection	Unknown injection	Intra- venous solution	Home remedy	Other	No	Number of children with diarrhea
Age in months								Ţ						-			
<6	32.6	5.8	13.6	19.5	0.0	1.8	6.8	1.0	17.2	3.0	0.0	0.0	0.0	1.5	7.1	53.1	68
6-11	41.6	35.2	9.3	41.5	4.6	5.7	14.9	2.6	18.1	6.9	1.9	0.7	0.0	6.4	5.8	36.3	118
12-23	40.2	48.2	17.7	60.1	6.2	6.3	14.3	2.0	16.9	15.9	0.1	4.0	0.5	3.1	4.3	20.4	239
24-35 36-47	39.2 31.8	39.9 39.9	13.0 9.9	50.7 54.5	5.2 8.6	8.1 8.6	13.4 10.7	2.4 0.0	6.5 6.0	14.5 19.5	0.0 0.0	0.0 0.9	0.0 0.0	3.9 2.0	1.6 9.5	33.6	144 90
48-59	(34.4)	(45.5)	(18.1)	(53.2)	(3.0)	(3.0)	(19.3)	(4.5)	(6.4)	(6.2)	(0.5)	(0.0)	(0.0)	(3.7)	9.5	23.7 (25.1)	90 52
Sex	(- )	( /	( - )	()	()	( )	( )	( - )	(- )	(- )	()	()	()	(- )	( -)	( - )	
Male	40.9	42.8	15.8	55.3	6.5	7.4	12.4	1.5	12.6	13.1	0.5	2.8	0.3	3.8	4.9	24.9	412
Female	34.0	34.0	11.5	42.6	3.4	4.5	14.8	2.8	13.3	12.0	0.2	0.0	0.0	3.2	4.5	36.0	299
Type of diarrhea																	
Non-bloody	37.2	38.8	13.8	50.1	5.4	6.3	12.0	2.2	12.4	12.2	0.4	1.1	0.2	3.7	4.7	30.9	604
Bloody	42.6	40.4	15.1	49.3	4.3	5.6	21.3	1.2	15.6	15.1	0.2	4.5	0.0	3.1	4.9	22.1	107
Residence																	
Urban	43.2	44.2	26.0	54.7	4.4	5.0	11.1	3.0	15.4	6.0	1.8	0.4	0.0	5.0	4.5	29.5	65
Rural	37.5	38.5	12.8	49.5	5.3	6.3	13.6	1.9	12.6	13.3	0.2	1.7	0.2	3.4	4.8	29.6	646
Ecological zone																	
Mountain Hill	35.5 38.6	35.2 40.3	19.5 18.8	46.3 53.8	5.7 5.9	6.5 7.1	9.8 8.8	0.9 1.3	23.3 11.7	6.1 2.8	0.0 0.7	0.0 0.3	0.0 0.0	2.9 4.2	3.3 1.6	32.3 33.6	54 258
Terai	38.0	40.3 38.7	10.0	48.0	5.9 4.7	5.5	0.0 16.9	2.6	12.2	2.0 19.9	0.7	2.6	0.0	4.2	6.9	26.6	400
	00.0	00.1	10.1	10.0		0.0	10.0	2.0		10.0	0.2	2.0	0.0	0.0	0.0	20.0	100
Development region Eastern	40.0	45.4	16.5	60.7	10.3	10.3	14.1	3.7	13.0	5.0	0.0	0.0	0.0	4.6	5.7	22.9	140
Central	27.7	36.0	10.6	43.3	1.8	1.9	12.8	1.3	9.1	17.4	0.9	2.1	0.0	3.6	6.9	34.9	244
Western	42.5	29.9	12.9	43.8	3.1	4.3	14.6	2.4	10.4	18.7	0.0	1.6	0.8	3.1	1.9	33.3	151
Mid-western	43.9	45.8	18.8	57.7	8.3	9.8	14.8	1.7	21.6	6.4	0.5	2.2	0.0	4.1	4.9	22.4	111
Far-western	52.0	46.3	15.2	53.3	6.8	11.3	8.7	0.8	17.7	7.6	0.0	2.3	0.0	1.3	0.9	28.0	64
Mother's education																	
No education	33.9	39.3	6.0	46.5	2.1	3.0	11.0	2.0	10.3	18.0	0.1	2.4	0.3	2.9	3.3	33.1	347
Primary Some secondary	37.4 49.8	30.9 46.5	14.5 20.7	46.4 54.1	8.3 9.2	10.2 9.7	18.5 13.2	2.3 1.3	17.6 13.2	6.6 8.1	0.0 1.7	1.2 1.0	0.0 0.0	1.9 5.4	5.0 7.2	33.4 21.0	144 147
SLC and above	49.8 35.4	46.5 38.9	37.1	65.3	9.2 5.9	9.7 5.9	15.4	3.1	13.2	7.9	0.0	0.0	0.0	5.4 6.4	6.4	21.0	74
Wealth guintile																	
Lowest	32.7	39.3	8.3	48.3	5.6	5.7	4.2	2.1	11.2	6.5	0.1	0.5	0.0	2.8	2.4	38.7	167
Second	38.7	40.3	12.1	48.3	3.1	3.6	13.2	2.3	12.6	15.3	0.0	3.1	0.0	6.5	3.8	27.5	162
Middle	38.9	35.0	12.1	43.6	4.0	5.7	14.9	0.4	11.3	19.6	0.0	1.8	0.7	1.3	7.3	31.0	181
Fourth	44.1	45.8	17.3	61.6	9.4	11.7	18.7	2.2	17.1	12.3	1.6	1.8	0.0	2.6	6.7	18.5	116
Highest	37.1	35.7	27.7	54.1	5.4	5.4	21.3	4.6	14.4	5.5	0.8	0.3	0.0	5.8	2.7	27.8	86
Total	38.0	39.0	14.0	50.0	5.2	6.2	13.4	2.0	12.9	12.6	0.4	1.6	0.2	3.6	4.7	29.6	711

Note: Figures in parentheses are based on 25-49 unweighted cases. <sup>1</sup> Excludes pharmacy, shop, and traditional practitioner SLC = School Leaving Certificate

The percentage of children treated with ORS increased from 29 percent in 2006 to 39 percent in 2011. Use of zinc to treat diarrhea, rare in 2006 (when less than 1 percent of children received zinc), has increased in recent years (to 6 percent in 2011). A population-based survey conducted in 2008 in the 26 POUZN target districts indicated that 15 percent of children suffering from diarrhea received zinc during their most recent episode (Wang et al., 2011). The current national coverage level of 6 percent is encouraging.

#### 10.9 FEEDING PRACTICES DURING DIARRHEA

Mothers are encouraged to continue feeding children with diarrhea normally and to increase the amount of fluids given. Table 10.8 shows that 71 percent of children who had diarrhea were given the same amount of fluid as usual, 14 percent were given more, 10 percent were given somewhat less than the usual amount, and 1 percent were given much less. Four percent of children with diarrhea were not given any liquids.

Regarding the amount of food offered to children who had diarrhea, 61 percent were given the same amount of food as usual. On the other hand, 18 percent of children were given somewhat less than the usual amount of food, and 2 percent were given much less than the usual amount.

#### Table 10.8 Feeding practices during diarrhea

Percent distribution of children under age five who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children who continued feeding and were given increased fluids during the episode of diarrhea, by background characteristics, Nepal 2011

			Amour	nt of liquid	s given					,	Amount of	food giver	ı			given	Percentage who continued feeding and were given	Number
Background characteristic	More	Same as usual	Some- what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some- what less	Much less	None	Never gave food	Don't know/ missing	Total	increased fluids and continued feeding <sup>1</sup>	ORS and/or increased fluids <sup>1</sup>	of children with diarrhea
Age in months <6 6-11 12-23 24-35	13.6 9.3 17.7 13.0	69.0 78.3 67.5 71.4	2.2 5.3 11.4 13.9	0.0 0.0 1.1 1.7	15.1 7.1 2.4 0.0	0.0 0.0 0.0 0.0	100.0 100.0 100.0 100.0	0.0 5.5 10.1 3.7	10.0 58.4 65.5 72.1	6.0 8.2 21.8 22.4	3.4 1.9 2.1 1.7	0.7 0.7 0.5 0.0	79.9 25.3 0.0 0.0	0.0 0.0 0.0 0.0	100.0 100.0 100.0 100.0	3.7 7.9 17.7 13.0	6.3 34.4 57.5 50.7	68 118 239 144
36-47 48-59	9.9 (18.1)	75.9 (58.6)	11.5 (15.1)	0.0 (0.0)	2.8 (0.0)	0.0 (8.2)	100.0 100.0	6.3 (5.3)	66.1 (71.3)	27.7 (15.2)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (8.2)	100.0 100.0	9.9 (18.1)	54.5 (53.2)	90 52
Sex Male Female	15.8 11.5	69.3 72.6	10.8 9.5	0.6 0.8	2.5 5.6	1.0 0.0	100.0 100.0	8.7 2.9	61.0 60.6	18.3 18.5	0.9 2.7	0.4 0.3	9.6 15.0	1.0 0.0	100.0 100.0	14.7 10.2	52.9 38.1	412 299
<b>Type of diarrhea</b> Non-bloody Bloody	13.8 15.1	71.1 68.2	9.7 13.6	0.8 0.0	4.2 1.3	0.4 1.8	100.0 100.0	6.0 7.8	60.9 60.4	17.1 25.9	1.9 0.5	0.4 0.0	13.4 3.6	0.4 1.8	100.0 100.0	12.5 14.6	46.3 48.8	604 107
<b>Residence</b> Urban Rural	26.0 12.8	63.7 71.4	9.2 10.4	0.0 0.8	1.1 4.0	0.0 0.7	100.0 100.0	5.9 6.3	63.5 60.5	23.2 17.9	0.0 1.9	0.2 0.4	7.3 12.4	0.0 0.7	100.0 100.0	25.6 11.5	54.1 45.9	65 646
<b>Ecological zone</b> Mountain Hill Terai	19.5 18.8 10.1	66.9 66.4 73.9	11.6 12.3 8.8	0.0 0.0 1.3	1.9 1.7 5.3	0.0 0.8 0.6	100.0 100.0 100.0	6.8 7.1 5.6	66.7 63.0 58.6	15.2 22.3 16.4	2.5 0.0 2.7	0.8 0.0 0.5	7.9 6.9 15.6	0.0 0.8 0.6	100.0 100.0 100.0	18.0 18.1 8.6	44.6 53.0 42.8	54 258 400
Development region Eastern Central Western Mid-western Far-western	16.5 10.6 12.9 18.8 15.2	71.1 66.7 74.4 73.2 71.6	8.4 12.7 11.1 7.0 8.8	0.0 2.1 0.0 0.0 0.0	2.4 7.9 0.3 1.0 4.4	1.7 0.0 1.3 0.0 0.0	100.0 100.0 100.0 100.0 100.0	6.3 5.0 5.1 9.6 7.7	64.1 56.9 62.7 61.5 62.8	15.3 20.1 21.0 17.0 14.9	1.9 3.1 0.0 1.7 0.0	0.3 0.0 0.8 0.8 0.0	10.5 14.8 9.1 9.4 14.6	1.7 0.0 1.3 0.0 0.0	100.0 100.0 100.0 100.0 100.0	16.2 9.6 12.9 15.9 11.4	60.4 38.1 43.1 52.5 47.6	140 244 151 111 64
Mother's education No education Primary Some secondary SLC and above	6.0 14.5 20.7 37.1	74.4 71.3 67.1 58.8	12.4 9.1 9.6 4.1	1.4 0.0 0.0 0.0	5.2 5.1 1.0 0.0	0.6 0.0 1.6 0.0	100.0 100.0 100.0 100.0	3.9 6.1 7.2 15.8	61.2 59.4 61.3 60.7	19.3 15.3 19.9 17.1	1.8 4.0 0.0 0.0	0.3 0.6 0.3 0.0	12.9 14.6 9.7 6.4	0.6 0.0 1.6 0.0	100.0 100.0 100.0 100.0	5.1 14.3 18.9 33.7	43.1 42.4 52.2 60.7	347 144 147 74
Wealth quintile Lowest Second Middle Fourth Highest	8.3 12.1 12.1 17.3 27.7	71.5 77.0 69.5 66.7 64.9	15.8 9.3 11.1 8.0 2.8	0.0 0.0 1.4 2.2 0.0	3.3 1.6 5.8 5.9 1.8	1.2 0.0 0.0 2.7	100.0 100.0 100.0 100.0 100.0	5.4 4.5 5.8 7.4 10.6	61.9 65.5 56.6 54.4 67.3	17.2 23.2 14.8 22.1 14.5	0.8 0.2 3.0 4.3 0.0	0.7 0.2 0.5 0.1 0.0	12.9 6.5 19.3 11.6 4.9	1.2 0.0 0.0 2.7	100.0 100.0 100.0 100.0 100.0	7.7 10.1 11.2 15.1 27.7	46.5 45.6 38.0 56.4 54.1	167 162 181 116 86
Total	14.0	70.7	10.3	0.7	3.8	0.6	100.0	6.2	60.8	18.4	1.7	0.3	11.9	0.6	100.0	12.8	46.7	711

Note: It is recommended that children should be given more liquids to drink during diarrhea and food should not be reduced. Figures in parentheses are based on 25-49 unweighted cases. <sup>1</sup> Continued feeding practice includes children who were given more, same as usual, or somewhat less food during the diarrhea episode. SLC = School Leaving Certificate

The practice of continuing feeding and giving ORS and/or increased fluids is recommended in the management of diarrhea. Among children suffering from diarrhea, those age 12-23 months are more likely than those in other age groups to be continually fed and given ORS and/or increased fluids during the episode. Children under six months are least likely to be given ORS and/or increased fluids and fed normally during diarrhea.

There are variations in feeding practices by other background characteristics as well. Male children and children suffering from bloody diarrhea, children in urban areas, children residing in the hill zone and the Eastern region, children of mothers with an SLC and higher education, and children from the fourth wealth quintile are more likely than other children to receive ORS and/or increased fluids with continued feeding.

The percentage of children with diarrhea given increased fluids and continued feeding has declined in the last five years from 20 percent to 13 percent. However, the practice of giving ORS and/or increased fluids along with continued feeding has improved over the same period, from 40 percent to 47 percent.

## **10.10 KNOWLEDGE OF ORS PACKETS**

A simple and effective response to dehydration caused by diarrhea is a prompt increase in the child's fluid intake through some form of ORT, including the use of a solution prepared from ORS packets. To assess knowledge of ORS, mothers with a child who had suffered from diarrhea within the two weeks preceding the

survey were asked about ORS packets. The commonly available brands in the country are Jeevan Jal, Nava Jeevan, and Orestal.

Knowledge of ORS is universal among women giving birth in the five years preceding the survey, with 99 percent being aware of ORS packets (data not shown).

### **10.11 DISPOSAL OF CHILDREN'S STOOLS**

Unsafe disposal of human feces spreads disease, either by direct contact or through indirect transmission. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease.

Table 10.9 presents information on the disposal of stools of children less than five years of age. The stools of 41 percent of children are disposed of safely; 20 percent of children under five use a toilet or latrine, the stools of 19 percent of children are disposed of in a toilet or latrine, and the stools of 2 percent of children are buried. On the other hand, 10 percent of children's stools are put or rinsed into a drain or ditch, 30 percent are thrown into the garbage, and 15 percent are left in the open.

There is a positive relationship between both education of the mother and household wealth and the safe disposal of children's stools. Seventy-six percent of mothers with an SLC or higher level of education dispose of their children's stools safely, compared with only 21 percent of children of mothers with no education. Similarly, stools are disposed of in a safe manner for 85 percent of children living in households in the highest wealth quintile, as compared with only 20 percent of children living in households in the lowest wealth quintile. Safe disposal of stools increases with age of the child.

Stools of children living in households in the lowest wealth quintile are most likely to be left in the open. Children's stools are nearly two times as likely to be disposed of safely in urban areas (73 percent) as in rural areas (38 percent). In rural areas, about one-half (47 percent) of children's stools are left in the open or thrown in the garbage, as compared with 17 percent in urban areas. Thirty-two percent of urban children use latrines, compared with 18 percent of rural children.

Although the marked difference in safe disposal of children's stools between urban and rural areas can be partially attributed to the greater access to toilet facilities in urban areas, it is notable that even in households with improved toilet facilities, children's stools are not necessarily disposed of safely.

The proportion of children whose stools are disposed of safely varies from one-third (29 percent) in the Far-western region to one-half (52 percent) in the Western region.

There has been improvement in the safe disposal of children's stools over the last 10 years. In 2001, only 18 percent of mothers disposed of their children's stools safely, as compared with 26 percent in 2006 and 41 percent in 2011.

#### Table 10.9 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Nepal 2011

			Manner of	disposal of chil	dren's stools				Percentage of children whose	
Background characteristic	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Total	stools are disposed of safely <sup>1</sup>	Number of children
Age in months										
<6	0.6	16.4	2.2	27.5	34.0	7.2	12.1	100.0	19.2	530
6-11	0.7	25.7	2.3	17.9	35.7	10.0	7.7	100.0	28.7	488
12-23 24-35	3.8 22.0	28.5 21.1	3.4 2.5	8.4 5.3	38.7 29.8	12.0 17.2	5.1 2.2	100.0 100.0	35.7 45.5	952 797
36-47	38.6	11.2	2.3	3.5	29.8	17.2	2.2	100.0	45.5 52.1	756
48-59	53.1	8.5	1.2	1.1	12.6	21.3	2.2	100.0	62.8	521
Toilet facility <sup>2</sup>										
Improved, not shared <sup>3</sup>	35.0	35.9	2.0	7.6	12.3	4.5	2.7	100.0	72.9	1,277
Non-improved or shared	12.3	11.7	2.6	10.5	37.7	19.4	5.9	100.0	26.5	2,765
Residence										
Urban	31.6	40.2	1.3	8.1	12.1	5.3	1.4	100.0	73.1	407
Rural	18.1	17.0	2.5	9.7	31.6	15.7	5.3	100.0	37.6	3,635
Ecological zone										
Mountain	15.3	19.8	2.1	13.8	29.2	17.6	2.3	100.0	37.2	293
Hill	24.2	23.6	2.3	7.6	20.0	14.7	7.6	100.0	50.0	1,618
Terai	16.5	16.0	2.6	10.5	37.0	14.3	3.2	100.0	35.0	2,131
Development region										
Eastern	19.1	27.3	3.8	8.0	25.1	12.8	3.8	100.0	50.2	968
Central	15.5	18.3	0.9	5.9	42.4	12.8	4.3	100.0	34.7	1,263
Western Mid-western	30.1 17.8	19.6 13.9	1.9 3.0	10.8 12.2	18.5 25.5	8.4 24.4	10.7 3.2	100.0 100.0	51.7 34.7	795 584
Far-western	14.3	11.1	3.9	18.1	28.7	24.4	3.2 1.0	100.0	29.3	431
Subregion										
Eastern mountain	18.6	37.7	2.5	12.8	13.6	8.5	6.4	100.0	58.7	76
Central mountain	19.0	21.6	1.8	12.6	29.7	14.2	1.2	100.0	42.3	70
Western mountain	11.8	9.7	2.1	14.9	37.0	23.9	0.7	100.0	23.5	147
Eastern hill	17.2	24.0	4.8	8.2	24.0	17.5	4.3	100.0	46.1	318
Central hill	26.3	33.9	0.0	5.7	13.8	12.6	7.7	100.0	60.2	389
Western hill	32.0	24.0	1.7	5.2	18.6	5.2	13.3	100.0	57.7	474
Mid-western hill Far-western hill	20.3 16.6	18.4 6.1	4.4 0.6	11.0 12.7	20.2 30.7	19.6 33.0	6.0 0.4	100.0 100.0	43.2 23.2	270 166
Eastern terai	20.3	27.7	0.6 3.4	7.3	27.3	10.8	0.4 3.1	100.0	23.2 51.4	574
Central terai	10.0	10.4	1.2	5.4	57.3	12.7	2.9	100.0	21.7	804
Western terai	27.4	13.2	2.2	19.2	18.2	13.1	6.7	100.0	42.8	321
Mid-western terai	16.4	10.0	1.2	13.8	27.4	30.5	0.7	100.0	27.6	235
Far-western terai	13.9	16.0	7.7	22.4	24.3	13.8	1.9	100.0	37.6	197
Mother's education										
No education	11.4	7.8	2.2	9.1	43.0	22.3	4.2	100.0	21.4	1,772
Primary	20.0	16.4	2.9	11.6	25.9	16.0	7.2	100.0	39.4	809
Some secondary	29.9	26.2 46.7	2.9 1.8	10.1	19.4	6.8 2.0	4.7 4.2	100.0 100.0	59.0 76.0	846 615
SLC and above	27.4	40.7	1.0	7.6	10.3	2.0	4.2	100.0	70.0	010
Wealth quintile Lowest	8.8	8.1	2.6	9.3	37.4	26.7	7.0	100.0	19.6	950
Second	0.0 13.5	10.2	2.6	9.3 12.3	36.6	19.3	7.0 5.5	100.0	26.3	950 871
Middle	15.6	14.5	3.7	10.8	37.4	13.9	4.0	100.0	33.8	852
Fourth	28.7	26.7	2.1	9.2	22.5	6.3	4.5	100.0	57.5	731
Highest	38.0	46.3	0.4	5.1	6.3	1.3	2.5	100.0	84.7	637
	19.5	19.3	2.4	9.6	29.6	14.7	4.9	100.0	41.2	4,042

<sup>1</sup> Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the fecal matter was put/rinsed into a toilet or latrine, or if it was

<sup>2</sup> See Table 2.2 for definition of categories <sup>3</sup> Non-shared facilities that are of the following types: flush or pour flush into a piped sewer system/septic tank/pit latrine; ventilated, improved pit (VIP) latrine; pit latrine with a slab; and composting toilet SLC = School Leaving Certificate

#### **Key Findings:**

- Forty-one percent of children under five years of age are stunted, 11 percent are wasted, and 29 percent are underweight.
- Breastfeeding is nearly universal in Nepal, and half of the children born in the three years before the survey were breastfed for about 34 months or longer.
- Seventy percent of children less than age 6 months are exclusively breastfed, and the median duration of exclusive breastfeeding is 4.2 months.
- Complementary foods are not introduced in a timely fashion for all children. Seventy percent of breastfed children have been given complementary foods by age 6-9 months.
- Overall, only one-fourth of children age 6-23 months are fed appropriately based on recommended infant and young child feeding (IYCF) practices.
- Forty-six percent of children age 6-59 months are anemic, 27 percent are mildly anemic, 18 percent are moderately anemic, and less than 1 percent are severely anemic.
- Eighteen percent of women are malnourished, that is, they fall below the body mass index (BMI) cutoff of 18.5. Fourteen percent of women are overweight or obese. Women's nutritional status has improved only slightly over the years.
- Thirty-five percent of women age 15-49 are anemic, 29 percent are mildly anemic, 6 percent are moderately anemic, and less than 1 percent are severely anemic.

Good nutrition is a prerequisite for the national development of countries and for the well-being of individuals. Although problems related to poor nutrition affect the entire population, women and children are especially vulnerable because of their unique physiology and socioeconomic characteristics.

Adequate nutrition is critical to children's growth and development. The period from birth to age two is especially important for optimal physical, mental, and cognitive growth, health, and development. Unfortunately, this period is often marked by protein-energy and micronutrient deficiencies that interfere with optimal growth. Childhood illnesses such as diarrhea and acute respiratory infections (ARIs) also are common.

A woman's nutritional status has important implications for her health as well as for the health of her children. Malnutrition in women results in reduced productivity, increased susceptibility to infections, slowed recovery from illness, and a heightened risk of adverse pregnancy outcomes. For example, a woman with poor nutritional status, as indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiencies, has a greater risk of obstructed labor, of having a baby with a low birth weight, of producing low-quality breast milk, of death from postpartum hemorrhage, and of morbidity for both herself and her baby.

This chapter reviews the nutritional status of children and women in Nepal. Specific issues discussed include the nutritional status of children based on anthropometric measurements, infant and young child feeding practices based on information on initiation of breastfeeding, exclusive and continued breastfeeding status and feeding with solid or semisolid foods, diversity of foods fed and frequency of feeding, micronutrient intake among children and women, and prevalence of anemia. The discussion also covers the nutritional status of women age 15-49. In addition, relationships between the nutritional status of children and women are analyzed by various background characteristics such as education, wealth quintile, and smoking status of mothers.

# 11.1 NUTRITIONAL STATUS OF CHILDREN

The nutritional status of children under age 5 is an important measure of children's health. The anthropometric data on height and weight collected in the 2011 NDHS permit the measurement and evaluation of the nutritional status of young children in Nepal. This evaluation allows identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development, and death.

# 11.1.1 Measurement of Nutritional Status among Young Children

The 2011 NDHS collected data on the nutritional status of children by measuring the height and weight of all children under age 5 in the selected households. The data collected allow the calculation of three indices: weight-for-age, height-for-age, and weight-for-height.

Indicators of the nutritional status of children were calculated using new growth standards published by the World Health Organization (WHO) in 2006. These new growth standards were generated through data collected in the WHO Multicenter Growth Reference Study (WHO, 2006). The findings of that study, which sampled 8,440 children in six countries (Brazil, Ghana, India, Norway, Oman, and the United States), describe how children should grow under optimal conditions. The WHO child growth standards can therefore be used to assess children all over the world, regardless of ethnicity, social and economic influences, and feeding practices. The new growth standards replace the previously used NCHS/CDC/WHO reference standards.

It should be noted that the new WHO child growth standards are not comparable with those based on the previously used NCHS/CDC/WHO standards. When the new WHO child growth standards are used instead of the previous reference, several changes are evident (WHO, 2006):

- The level of stunting is higher.
- The level of wasting in infancy is substantially higher.
- The level of underweight is substantially higher during the first half of infancy (0-6 months) and decreases thereafter.
- The level of overweight/obesity is higher.

The three indices are expressed in standard deviation units from the Multicenter Growth Reference Study median. Anthropometry is one of the most important indicators of children's nutritional status.

The height-for-age index provides an indicator of linear growth retardation and cumulative growth deficits in children. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the WHO reference population are considered short for their age (stunted), or chronically malnourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effects of malnutrition in a population and is not sensitive to recent, short-term changes in dietary intake.

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children with Z-scores below minus two standard deviations (-2 SD) are considered thin (wasted) or acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children with a weight-for-height index below minus three standard deviations (-3 SD) are considered severely wasted.

The weight-for-height index also provides data on overweight and obesity. Children more than two standard deviations (+2 SD) above the median weight-for-height are considered overweight or obese.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both chronic and acute malnutrition. Children whose weight-for-age is below minus two standard deviations (-2 SD) are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) are considered severely underweight.

### 11.1.2 Data Collection

Measurements of height and weight were obtained for all children born in the five years preceding the survey in the subsample of households selected for the male survey and listed in the Household Questionnaire. Children who were not biological children of the women interviewed in the survey were included. Each team of interviewers carried a scale and measuring board. Measurements were made using lightweight SECA scales (with digital screens) designed and manufactured under the authority of the United Nations Children's Fund (UNICEF). The measuring boards employed were specially produced by Shorr Productions for use in survey settings. Children under age 2 or less than 85 cm were measured lying down on the board (recumbent length), and standing height was measured for all other children.

#### 11.1.3 Measures of Child Nutrition Status

#### Height-for-age

Table 11.1 presents the nutritional status of children under age 5 by various background characteristics. Nationally, 41 percent of children under age 5 are stunted, and 16 percent are severely stunted. Analysis by age group shows that stunting is highest (53 percent) in children age 36-47 months and lowest (14 percent) in children age 9-11 months (Figure 11.1). Severe stunting shows a similar pattern, with the highest proportion of severe stunting in children age 36-47 months (23 percent) and the lowest in those age 6-11 months (4 percent). Stunting is slightly higher in male children (41 percent) than in female children (40 percent). There is an inverted U-shaped relationship between the length of the preceding birth interval and the proportion of children who are stunted, with stunting being higher among children born within 24 to 47 months of a previous birth than among first births and births 48 or more months after a previous birth. More than half of children whose size at birth was very small or small are stunted. Mothers' nutritional status, as measured by their body mass index, also has an impact on the level of stunting in their children. For example, mothers who are thin (BMI < 18.5) have children with the highest levels of stunting (47 percent), while mothers who are overweight/obese (BMI  $\geq$  25) have children with the lowest levels (27 percent).

Children in rural areas are more likely to be stunted (42 percent) than those in urban areas (27 percent), and a similar pattern is noted for severe stunting (17 percent in rural areas and 6 percent in urban areas). Ecologically, the highest proportion of stunted children (53 percent) is found in the mountain zone. Among the development regions, stunting is highest among children in the Mid-western region (50 percent). Three-fifths (60 percent) of children in the Western mountain subregion are stunted, compared with one-third of children in the Central hill, Eastern terai, and Far-western terai subregions (31-32 percent each).

A mother's level of education generally has an inverse relationship with stunting levels, ranging from a low of 26 percent among children whose mothers have a School Leaving Certificate (SLC) or higher education to a high of 48 percent among those whose mothers have no education. A similar inverse relationship is observed between household wealth and stunting levels. Children in the poorest households are more than twice as likely to be stunted (56 percent) as children in the wealthiest households (26 percent). Similarly, children in households with food security (33 percent) are less likely to be stunted than children in households with mild food insecurity (41 percent), moderate food insecurity (46 percent), and severe food insecurity (49 percent).

#### Weight-for-height

Table 11.1 also shows the nutritional status of children less than age 5 as measured by weight-forheight. Overall, 11 percent of children are wasted and 3 percent are severely wasted. Analysis by age group shows that wasting is highest (25 percent) in children age 9-11 months and lowest (7 percent) in children age 36-47 months. Male children are more likely to be wasted (12 percent) than female children (10 percent). Wasting is not strongly correlated with the length of the preceding birth interval. However, the data show a substantial correlation between wasting and birth weight. Babies who were very small at birth are more likely to be wasted (15 percent) than those whose weight at birth was average or large (10 percent). Children born to mothers who are thin (BMI < 18.5) are 2.5 times more likely to be wasted than those born to mothers who are overweight/obese (BMI  $\geq$  25). Children residing in urban areas are less likely to be wasted (8 percent) than children in rural areas (11 percent). Wasting in children does not vary markedly by ecological zone or development region. However, wasting levels across subregions are substantial, ranging from a low of 8 percent among children in the Eastern and Central mountain, Western and Mid-western hill, and Far-western terai subregions to a high of 15 percent among children in the Central hill and Western terai subregions.

#### Table 11.1 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Nepal 2011

	He	eight-for-age1			Weight-fo	r-height			Weight-f			
Background characteristic	Percentage below -3 SD	Percentage below -2 SD <sup>2</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>2</sup>	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>2</sup>	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	7.5	19.4	-0.8	5.3	11.8	5.7	-0.5	7.3	18.2	0.1	-1.0	227
6-8	4.3	17.7	-0.7	3.0	16.7	1.2	-0.7	5.3	18.5	2.0	-1.0	135
9-11	4.1	13.6	-1.0	6.4	24.7	3.5	-1.1	4.3	26.8	0.0	-1.3	110
12-17	13.2	28.6	-1.4	3.7	14.2	0.4	-0.9	6.1	24.9	0.0	-1.3	266
18-23	16.2	42.2	-1.7	4.5	19.4	0.6	-0.9	10.3	37.0	0.0	-1.5	221
24-35	20.2 22.9	51.7	-2.0	1.2	7.4	1.5	-0.5	7.9	30.5	0.3	-1.5	500
36-47 48-59	22.9 16.6	53.0 43.4	-2.1 -1.8	1.1 2.1	7.2 7.8	0.5 0.7	-0.5 -0.6	8.6 7.9	30.4 32.0	0.1 0.4	-1.6 -1.5	524 492
Sex												
Male	16.7	41.4	-1.7	3.4	12.0	1.3	-0.7	8.2	29.6	0.3	-1.5	1,268
Female	15.7	39.5	-1.6	1.8	9.7	1.5	-0.6	7.2	28.0	0.3	-1.4	1,207
Birth interval in months <sup>3</sup>												
First birth <sup>4</sup>	12.6	35.0	-1.5	2.1	9.4	2.1	-0.5	4.5	23.2	0.3	-1.2	940
<24	24.4	47.3	-2.0	3.4	13.5	0.7	-0.8	13.3	35.9	0.0	-1.7	321
24-47	18.3	46.3	-1.8	2.5	11.3	0.9	-0.8	9.9	34.0	0.2	-1.6	725
48+	13.0	36.5	-1.6	2.8	11.8	1.5	-0.6	6.4	25.6	0.4	-1.4	393
Size at birth <sup>3</sup>	~~~~							40 7	10.0			
Very small	20.8	50.6	-2.0	1.4	15.4	1.3	-1.0	12.7	42.8	0.0	-1.9	93
Small	21.6	50.8	-2.0 -1.6	5.1	13.7	0.3	-0.9 -0.6	13.1	44.6	0.0	-1.8 -1.3	329
Average or larger	14.7	38.1	-1.0	2.2	10.2	1.6	-0.6	6.4	25.2	0.3	-1.3	1,952
Mother's interview status	10.0	40.0			40.0							0.070
Interviewed	16.0	40.3	-1.7	2.5	10.9	1.4	-0.7	7.6	28.6	0.3	-1.4	2,379
Not interviewed but in household	(26.9)	(37.4)	(-1.6)	(7.1)	(11.9)	(0.0)	(-0.8)	(6.3)	(43.3)	(0.0)	(-1.5)	35
Not interviewed and not in household <sup>5</sup>	19.5	48.9	-1.9	4.1	10.4	0.9	-0.5	11.8	28.7	1.6	-1.4	62
	10.0	1010			10.1	0.0	0.0	1110	2011			02
Mother's nutritional status <sup>6</sup> Thin (BMI < 18.5)	18.6	47.0	-1.9	4.7	18.9	0.5	-1.1	12.7	40.1	0.0	-1.8	465
Normal (BMI 18.5-24.9)	16.2	40.0	-1.7	2.0	9.2	1.2	-0.6	6.8	27.5	0.2	-1.4	1,704
Overweight/ obese (BMI ≥ 25)	8.1	27.2	-1.1	2.0	7.0	4.9	-0.2	1.7	12.6	1.5	-0.8	224
Residence												
Urban	6.2	26.7	-1.2	2.7	8.2	1.8	-0.5	4.0	16.5	0.6	-1.0	216
Rural	17.2	41.8	-1.7	2.6	11.2	1.4	-0.7	8.1	30.0	0.3	-1.5	2,259
Ecological zone												
Mountain	22.2	52.9	-2.1	3.2	10.9	0.5	-0.7	9.9	35.9	0.2	-1.7	195
Hill	16.7	42.1	-1.7	1.7	10.6	1.6	-0.6	7.1	26.6	0.3	-1.4	989
Terai	14.9	37.4	-1.6	3.2	11.2	1.4	-0.7	7.8	29.5	0.3	-1.4	1,291
Development region												
Eastern	13.1	37.0	-1.6	1.8	10.2	2.1	-0.6	5.6	25.4	0.2	-1.4	596
Central	16.8	38.2	-1.6	3.1	11.6	0.9	-0.7	8.9	29.5	0.5	-1.4	767
Western	14.5	37.4	-1.6	2.5	10.4	1.9	-0.5	5.3	23.2	0.5	-1.3	463
Mid-western Far-western	21.1 17.5	50.3 46.4	-2.0 -1.8	2.8 3.2	11.3 10.9	1.0 1.2	-0.7 -0.8	10.7 8.7	36.9 32.6	0.0 0.1	-1.7 -1.6	373 277
Subregion												
Eastern mountain	16.3	45.0	-1.7	0.7	8.4	0.0	-0.5	4.9	23.5	0.0	-1.3	46
Central mountain	14.2	45.5	-1.9	2.8	7.9	0.0	-0.7	7.6	34.7	0.9	-1.6	44
Western mountain	28.3	59.5	-2.3	4.4	13.2	1.0	-0.8	13.2	42.0	0.0	-1.9	105
Eastern hill	17.2	45.5	-1.8	1.3	10.5	1.6	-0.5	5.8	28.6	0.0	-1.4	191
Central hill	11.2	31.3	-1.4	2.7	15.0	1.9	-0.6	5.1	22.5	1.5	-1.2	216
Western hill	12.6	36.0	-1.5	1.0	7.6	2.1	-0.4	3.8	16.8	0.0	-1.1	294
Mid-western hill	23.4	51.7	-2.1 -2.2	1.9	8.0	1.4	-0.6	11.5	37.1	0.0	-1.6	171
Far-western hill Eastern terai	26.9 10.5	57.5 31.4	-2.2	2.5 2.2	13.7 10.3	0.0 2.5	-0.9 -0.7	14.9 5.6	39.7 24.0	0.0 0.3	-1.9 -1.3	117 359
Central terai	10.5	31.4 40.5	-1.4	2.2 3.2	10.3	2.5 0.5	-0.7 -0.7	5.6 10.7	24.0 32.0	0.3	-1.3	359 507
Western terai	17.8	39.9	-1.7	5.2 5.1	15.2	1.4	-0.7	8.1	32.0	1.4	-1.4	169
Mid-western terai	14.1	43.5	-1.7	3.4	13.9	0.6	-0.9	7.5	32.1	0.0	-1.6	142
Far-western terai	4.9	31.5	-1.3	3.4	7.9	2.4	-0.7	2.4	24.7	0.2	-1.2	115
									=			
												Continued

#### Table 11.1—Continued

	He	eight-for-age1			Weight-fo	r-height			Weight-f	or-age		
Background characteristic	Percentage below -3 SD	Percentage below -2 SD <sup>2</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>2</sup>	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>2</sup>	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Mother's education <sup>7</sup>												
No education	22.2	47.6	-2.0	3.1	13.3	0.6	-0.8	11.6	38.4	0.0	-1.7	1,148
Primary	13.3	40.6	-1.6	3.1	11.3	1.1	-0.6	6.3	26.1	0.0	-1.4	479
Some secondary	9.8	32.0	-1.4	1.0	5.5	3.6	-0.4	2.4	18.8	1.2	-1.1	466
SLC and above	7.7	25.6	-1.0	2.2	9.7	1.5	-0.4	2.8	13.3	0.2	-0.9	321
Wealth quintile												
Lowest	25.2	56.0	-2.1	2.3	12.5	1.6	-0.7	10.5	40.3	0.0	-1.7	638
Second	20.0	45.7	-1.9	2.3	10.7	0.4	-0.8	8.7	31.6	0.0	-1.7	508
Middle	12.9	34.5	-1.5	3.0	12.8	1.6	-0.8	8.2	28.8	0.1	-1.4	580
Fourth	10.2	30.5	-1.4	3.5	8.8	1.5	-0.6	6.1	22.9	0.4	-1.2	419
Highest	6.5	25.8	-1.1	2.0	7.4	2.2	-0.3	2.0	10.0	1.6	-0.8	331
Household food insecurity												
Secure	12.1	33.2	-1.4	2.0	9.4	1.8	-0.6	5.3	21.7	0.5	-1.2	1,057
Mildly insecure	15.5	41.2	-1.7	4.7	11.6	0.7	-0.6	9.4	27.9	0.5	-1.4	304
Moderate	18.7	45.5	-1.8	3.4	12.7	1.1	-0.8	8.6	32.3	0.0	-1.6	575
Severe	22.0	49.0	-1.9	1.9	11.5	1.3	-0.7	10.5	39.5	0.0	-1.7	540
Total	16.2	40.5	-1.7	2.6	10.9	1.4	-0.7	7.7	28.8	0.3	-1.4	2,475

Note: Table is based on children who stayed in the household on the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO reference. Figures in parentheses are based on 25-49 unweighted cases. Total includes four children with missing information on size at birth. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

other children.

Includes children who are below -3 standard deviations from the WHO Child Growth Standards population median

Excludes children whose mothers were not interviewed First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

Includes children whose mothers are deceased

<sup>7</sup> For women whose mothers are occessed <sup>7</sup> For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire. SLC = School Leaving Certificate

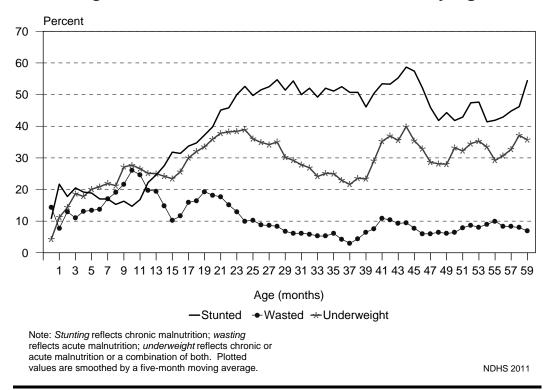


Figure 11.1 Nutritional Status of Children by Age

A mother's level of education generally has an inverse relationship with wasting levels, ranging from 6-10 percent of children of mothers with at least some secondary education to 13 percent of children of mothers with no education. A similar relationship is observed between household wealth and wasting levels.

#### Weight-for-age

As shown in Table 11.1, 29 percent of children under age 5 are underweight (low weight-for-age), and 8 percent are severely underweight. The proportion of underweight children is highest (37 percent) among those age 18-23 months and lowest (18 percent) among those under 6 months. Male children are slightly more likely to be underweight (30 percent) than female children (28 percent). The data show a strong correlation between underweight children and birth weight. Babies perceived by mothers as very small and small at birth are much more likely to also be underweight later in life (43 percent and 45 percent, respectively) than those perceived as average or large at birth (25 percent). Children born to mothers who are thin (BMI < 18.5) are three times more likely to be underweight (40 percent) than children born to mothers who are overweight/obese (13 percent).

Rural children are more likely to be underweight (30 percent) than urban children (17 percent). Children living in the mountain zone are more likely to be underweight (36 percent) than those in the terai (30 percent) and hill zone (27 percent). The Mid-western region has the highest percentage of underweight children (37 percent), while the Western region has the lowest (23 percent). Among the subregions, the highest percentage of underweight children is found in the Western mountain subregion (42 percent), and the lowest percentage is found in the Western hill subregion (17 percent).

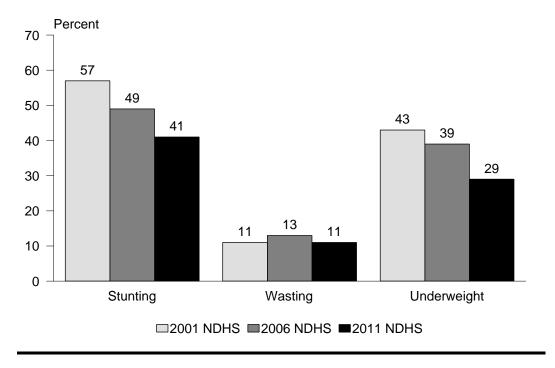
As with wasting and stunting, mother's education is associated with underweight, with the percentage of children who are underweight being lowest among children of mothers with an SLC and higher (13 percent) and highest among children of mothers with no education (38 percent). A similar inverse relationship is observed between household wealth and the percentage of underweight children: children in the poorest households are four times as likely to be underweight (40 percent) as children in the wealthiest households (10 percent).

### 11.1.4 Trends in Children's Nutritional Status

Trends in the nutritional status of children for the period 2001 to 2011 are shown in Figure 11.2. For the purpose of assessing trends, the data from the 2001 NDHS were recalculated using the WHO child growth standards adopted in 2006, as both the 2006 NDHS and 2011 NDHS are based on this reference population.

In general, the nutritional status of children in Nepal has improved over the past 15 years and is close to achieving the Millennium Development Goal (MDG) target of reducing the percentage of underweight children age 6-59 months to 29 percent by 2015 (National Planning Commission, 2010a). Figure 11.2 shows a downward trend in stunting and underweight over time. The percentage of stunted children declined by 14 percent between 2001 and 2006 and declined by an additional 16 percent between 2006 and 2011. A similar pattern is observed for the percentage of underweight children, which dropped by 9 percent between 2001 and 2006 and by 26 percent between 2006 and 2011. Similarly, the percentage of wasting declined by 15 percent between 2006 and 2011.

*Figure 11.2* Trends in Nutritional Status of Children under Five Years



# 11.2 BREASTFEEDING AND COMPLEMENTARY FEEDING

Feeding practices play a critical role in child development. Poor feeding practices can adversely impact the health and nutritional status of children, which in turn has dire consequences for their mental and physical development. The duration and intensity of breastfeeding also affect a mother's period of postpartum infertility and, hence, the length of the birth interval and fertility levels.

#### 11.2.1 Initiation of Breastfeeding

Early initiation of breastfeeding is important for both the mother and the child. Early suckling stimulates the release of prolactin, which helps in the production of milk, and oxytocin, which is responsible for the ejection of milk. It also stimulates contraction of the uterus after childbirth and reduces postpartum blood loss. The first liquid to come from the breast, known as colostrum, is produced in the first few days after delivery. Colostrum is highly nutritious and contains antibodies that provide natural immunity to the infant. It is recommended that children be fed colostrum immediately after birth (within one hour) and that they continue to be exclusively breastfed even if the regular breast milk has not yet started to flow.

Table 11.2 shows the percentage of last-born children born in the two years preceding the survey according to whether they were ever breastfed, when they began breastfeeding, and whether they were fed anything other than breast milk prior to the commencement of breastfeeding. Ninety-eight percent of children have been breastfed at some time, with negligible differences by background characteristics. Less than half of children (45 percent) are breastfed within one hour of birth. The vast majority (85 percent) of children are breastfed within one day of birth. Results from the 2006 NDHS showed that 35 percent of last-born children who were breastfed in the five years preceding the survey were breastfed within one hour of birth.<sup>1</sup> Initiation of breastfeeding within one hour and within one day of birth varies by background characteristics.

<sup>&</sup>lt;sup>1</sup> These figures should be compared with caution given that the 2006 NDHS accounted for last-born children in the five years preceding the survey and that, rather than being calculated among all last-born children (as in the 2011 NDHS), initiation of breastfeeding within one hour and one day of birth was calculated among children who had ever been breastfed.

#### Table 11.2 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth; and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Nepal 2011

	Amor	ng last-born children	porn in the past two	years:	past two years	children born in the who were ever stfed:
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth <sup>1</sup>	Number of last- born children	Percentage who received a prelacteal feed <sup>2</sup>	Number of last- born children ever breastfed
Sex	00 <i>t</i>			4 007		4 007
Male Female	98.1 98.3	44.5 44.6	86.8 83.7	1,027 1,004	26.4 29.8	1,007 986
	30.5	44.0	05.7	1,004	23.0	300
Assistance at delivery Skilled provider <sup>3</sup>	98.5	55.7	87.4	880	24.1	867
Other health worker <sup>4</sup>	96.6	36.0	76.8	125	35.9	121
Traditional birth attendant	96.8	27.6	74.5	197	54.9	190
Other	98.2	39.2	87.1	775	25.5	761
No one	100.0	20.4	82.2	54	15.7	54
Place of delivery						
Health facility	98.5	55.7	87.3	888	23.5	875
At home	98.2	36.2	83.9	1,095	31.8	1,075
Other	(90.6)	(29.0)	(78.8)	47	(29.0)	43
Residence						
Urban	97.6	50.8	86.0	189	27.8	184
Rural	98.2	43.9	85.2	1,842	28.1	1,809
Ecological zone						
Mountain	98.0	51.3	90.3	166	17.4	163
Hill Terai	98.6 97.9	47.1 41.6	91.1 80.2	785 1,079	18.2 37.0	774 1,056
	57.5	41.0	00.2	1,075	57.0	1,050
Development region Eastern	98.7	48.4	91.8	468	21.7	462
Central	97.2	34.3	71.8	658	41.2	640
Western	97.9	49.8	92.0	398	29.8	390
Mid-western	99.4	46.8	87.9	291	21.7	289
Far-western	98.9	54.6	95.9	215	7.9	212
Subregion						
Eastern mountain	96.5	52.5	93.6	39	14.9	38
Central mountain	98.9	42.8	92.0	36	19.3	36
Western mountain	98.3	54.2	88.3	.91	17.6	89
Eastern hill	98.7	50.2	91.0	152	17.5	150
Central hill	98.7	40.3	87.9	177	16.9	175
Western hill	97.6	48.4	92.6	240	23.5	234
Mid-western hill Far-western hill	99.4 99.7	46.0 53.6	88.4 97.7	131 85	21.4 2.8	130 84
Eastern terai	99.0	46.8	91.9	277	25.0	274
Central terai	96.5	31.3	63.8	445	53.0	429
Western terai	98.3	51.9	91.2	159	39.2	156
Mid-western terai	100.0	45.6	90.2	111	20.8	111
Far-western terai	98.0	54.3	93.8	88	12.0	86
Mother's education						
No education	97.7	34.7	78.3	862	35.1	842
Primary	98.9	44.5	92.0	392	17.8	388
Some secondary	98.7	57.6	92.6	429	22.6	424
SLC and above	97.8	52.8	85.8	347	29.4	340
Wealth quintile	<b>a</b>	10-5				
Lowest	99.3	40.2	86.9	489	19.9	486
Second	97.7	38.7	83.6	428	29.0	418
Middle	96.6	44.1	81.0	469	37.1	453
Fourth Highest	98.6 99.0	52.3 51.8	89.0 87.1	370 274	25.3 30.0	365 272
•						
Total	98.2	44.5	85.2	2,030	28.1	1,993

Note: Table is based on last-born children born in the two years preceding the survey regardless of whether the children were living or dead at the time of the interview. Figures in parentheses are based on 25-49 unweighted cases.

<sup>2</sup> Children given something other than breast milk during the first three days of life

<sup>3</sup> Doctor, nurse, or midwife

<sup>4</sup> Health assistant/auxiliary health worker or maternal and child health worker/village health worker

SLC = School Leaving Certificate

Breastfeeding within one hour of birth was more common in urban areas (51 percent) than in rural areas (44 percent). Notable variations can be seen by region. Fifty-five percent of children in the Far-western region were breastfed within one hour of birth, compared with 34 percent of children in the Central region. Initiation of breastfeeding within one hour of birth was highest in the Western mountain, Far-western hill, and Far-western terai subregions (54 percent each). Children born in a health facility were more likely to start breastfeeding within one hour of birth (56 percent) than children delivered at home (36 percent). Fifty-eight percent of children born to mothers with some secondary education started breastfeeding within one hour of birth, compared with 35 percent of children of mothers with no education. Early breastfeeding increased with increasing wealth, from 40 percent among children in the lowest wealth quintile to 52 percent among children in the fourth and fifth quintiles.

The practice of providing a prelacteal feed is discouraged because it limits the frequency of suckling by the infant and exposes the baby to the risk of infection. The data show that 28 percent of infants are given a prelacteal feed. Prelacteal feeding varies by ecological zone, region, and subregion. Prelacteal feeding is twice as high in the terai (37 percent) as in the mountain (17 percent) and hill (18 percent) zones. Regionally, 41 percent of children receive a prelacteal feed in the Central region, compared with only 8 percent of children in the Far-western region. Among the subregions, the highest proportion of children receiving a prelacteal feed is observed in the Central terai subregion (53 percent), while the lowest is seen in the Far-western hill subregion (3 percent).

Children who were delivered at home are more likely to receive a prelacteal feed (32 percent) than children who were delivered at a health facility (24 percent). Prelacteal feeding is more common among children whose mothers have no education (35 percent) than among children whose mothers have a primary education (18 percent). In general, prelacteal feeding increases with wealth. Prelacteal feeding is highest (37 percent) among children in the middle wealth quintile and lowest among those in the poorest households (20 percent).

# 11.3 BREASTFEEDING STATUS BY AGE

UNICEF and WHO recommend that children be exclusively breastfed (no other liquid, solid food, or plain water) during the first six months of life (WHO/UNICEF, 2002; PAHO/WHO, 2004). The nutrition program under the 2004 National Nutrition Policy and Strategy promotes exclusive breastfeeding through the age of 6 months and, thereafter, the introduction of semisolid or solid foods along with continued breast milk until the child is at least age 2. Introducing breast milk substitutes to infants before age 6 months can contribute to breastfeeding failure. Substitutes, such as formula, other kinds of milk, and porridge, are often watered down and provide too few calories. Furthermore, possible contamination of these substitutes exposes the infant to the risk of illness. Nepal's Breast Milk Substitute Act (2049) of 1992 promotes and protects breastfeeding and regulates the unauthorized or unsolicited sale and distribution of breast milk substitutes (Ministry of Health and Population [MOHP], 2004b).

After six months, a child requires adequate complementary foods for normal growth. Lack of appropriate complementary feeding may lead to malnutrition and frequent illnesses, which in turn may lead to death. However, even with complementary feeding, the child should continue to be breastfed for two years or more.

Table 11.3 shows the percentage of youngest children under 2 years living with their mother by breastfeeding status, the percentage currently breastfeeding, and the percentage using a bottle with a nipple, according to age in months. Breastfeeding in Nepal is almost universal, and exclusive breastfeeding for the first six months is widespread. The data show that 70 percent of children under 6 months are exclusively breastfed. This is an improvement from the 2006 NDHS, when the figure was 53 percent. Eighty-eight percent of infants age 0-1 months and 74 percent of infants age 2-3 months receive breast milk only, compared with 53 percent of infants age 4-5 months. Ten percent of children under age 6 months receive plain water in addition to breast milk, and 9 percent receive other milk in addition to breast milk.

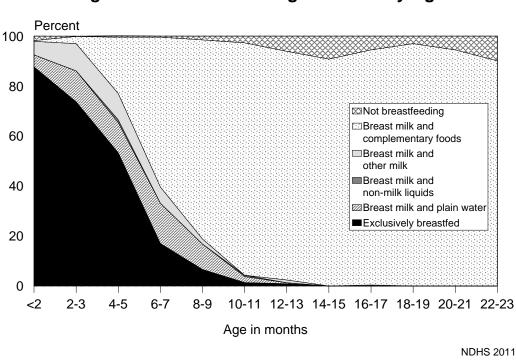
#### Table 11.3 Breastfeeding status by age

			Bre	astfeeding sta	atus				Number of		
Age in months	Not breast- feeding	Exclusively breastfed	Breast- feeding and consuming plain water only	Breast- feeding and consuming nonmilk liquids <sup>1</sup>	Breast- feeding and consuming other milk	Breast- feeding and consuming comple- mentary foods	Total	Percentage currently breast- feeding	youngest children under two years living with their mother	Percentage using a bottle with a nipple	Number o all childrer under two years
0-1	1.8	87.7	4.8	0.0	5.4	0.3	100.0	98.2	131	5.3	131
2-3	0.0	73.7	12.4	0.0	10.9	2.9	100.0	100.0	203	3.2	204
4-5	0.6	53.3	12.1	1.1	10.5	22.6	100.0	99.4	195	8.7	195
6-8	0.5	14.1	15.3	0.0	5.0	65.2	100.0	99.5	267	5.5	268
9-11	2.7	2.1	3.7	0.3	0.5	90.6	100.0	97.3	221	8.0	224
12-17	6.8	0.3	0.3	0.0	0.4	92.3	100.0	93.2	516	6.6	532
18-23	5.7	0.0	0.0	0.0	0.0	94.3	100.0	94.3	435	5.1	468
0-3	0.7	79.2	9.4	0.0	8.8	1.9	100.0	99.3	335	4.1	336
0-5	0.7	69.6	10.4	0.4	9.4	9.5	100.0	99.3	530	5.8	531
6-9	1.0	11.5	13.0	0.0	4.1	70.4	100.0	99.0	351	6.0	352
12-15	7.5	0.5	0.2	0.0	0.6	91.2	100.0	92.5	325	7.3	338
12-23	6.3	0.2	0.1	0.0	0.2	93.2	100.0	93.7	952	5.9	1,000
20-23	7.4	0.0	0.0	0.0	0.0	92.6	100.0	92.6	272	3.9	297

Percent distribution of youngest children under two years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under two years using a bottle with a nipple, according to age in months, Nepal 2011

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, and breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semisolids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, children who receive breast milk and nonmilk liquids and who do not receive other milk and who do not receive complementary foods are classified in the nonmilk liquid category even though they may also be given plain water. Any children who receive complementary food are classified in that category as long as they are breastfeeding as well.

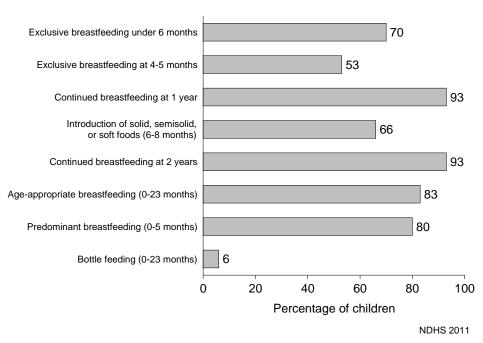
Table 11.3 and Figure 11.3 also show complementary feeding practices among children of different ages. Three percent of children age 2-3 months, 23 percent of children age 4-5 months, 65 percent of children age 6-8 months, and 91 percent of children age 9-11 months are given complementary foods. Seventy percent of children age 6-9 months are given complementary food (a decline from 2006, when the figure was 75 percent). Although all children age 6-9 months should receive complementary foods, Table 11.3 shows that 30 percent of children in this age group did not receive complementary foods the day or night preceding the survey.



# Figure 11.3 Infant Feeding Practices by Age

The Breast Milk Substitute Act discourages the use of bottles with nipples (MOHP, 2004b). The use of a bottle with a nipple, regardless of the contents (breast milk, formula, or any other liquid), requires hygienic handling to avoid contamination that may place the infant at risk for infection. The survey data show that 6 percent of infants less than age 6 months are fed using a bottle with a nipple.

Figure 11.4 shows 2011 NDHS results on Infant and Young Child Feeding (IYCF) practices indicators. As noted above, 70 percent of children under age 6 months are exclusively breastfed, and 66 percent of children 6-8 months (breastfed and non-breastfed) are introduced to complementary foods at an appropriate time. Ninety-three percent of all children are still breastfeeding at age 1, and the same proportion are still breastfeeding at age 2. Four of five Nepalese children age 0-23 months are breastfed appropriately for their age. This includes exclusive breastfeeding for children age 0-5 months and continued breastfeeding along with complementary foods for children age 6-23 months. Four-fifths of children under 6 months are predominantly breastfed. This percentage includes children who are exclusively breastfed and those who receive breast milk and only plain water or nonmilk liquids such as juice. Finally, 6 percent of children under age 2 are bottle fed.



# Figure 11.4 IYCF Indicators on Breastfeeding Status

# 11.4 DURATION OF BREASTFEEDING

Table 11.4 provides information on the median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey. The median duration of any breastfeeding in Nepal is 33.6 months, which is similar to the figure from the 2006 NDHS. The mean duration of breastfeeding for all children is 28.8 months. Differences in the median duration of breastfeeding by background characteristics are small.

The median duration of exclusive breastfeeding for all children is 4.2 months, and the mean duration is 5 months. These figures are higher than those reported in 2006, when the median duration of exclusive breastfeeding was 2.5 months and the mean duration was 4 months. The differences in the median duration of exclusive breastfeeding by background characteristics are small. However, the median duration of exclusive breastfeeding among children of mothers with no education is about twice as high as the duration among children of mothers with an SLC and higher level of education. Similarly, the median duration of exclusive breastfeeding among children in the highest wealth quintile is low (2.2 months) compared with children in the lowest and second quintiles (4.6 months).

Table 11.4 also shows the median duration of predominant breastfeeding, which is defined as exclusive breastfeeding or breastfeeding in combination with plain water, water-based liquids, or juices. The median duration of predominant breastfeeding is 5.4 months. Predominant breastfeeding is lower (4 months) among children of better educated mothers (SLC and above) than among children of mothers who have no education (7 months). Similar differences can be seen among children in the highest wealth quintile (3.4 months) compared with those in the other wealth quintiles.

# 11.5 TYPES OF COMPLEMENTARY FOODS

It is recommended that complementary foods (solid or semisolid foods fed to infants in addition to breast milk) be started at age 6 months. The reason is that, at this age, breast milk alone is no longer sufficient to maintain the child's recommended daily allowances of nutritional requirements to enhance growth. Children are fed small quantities of solid and semisolid foods while continuing to breastfeed up to age 2 or beyond. The amount of food is increased gradually from 6 to 23 months, which is the period of transition to eating the regular family diet. This period is characterized by an increase in the prevalence of malnutrition because of poor feeding practices and infections. Table 11.5 shows the percentage of youngest children under age 2 who are living with the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding and nonbreastfeeding status of children by age.

The data show that, contrary to WHO recommendations, the practice of feeding children with solid or semisolid foods starts early in life. Three percent of breastfeeding children age 2-3 months receive some kind of solid or semisolid food, and by 4-5 months the proportion is 23 percent.

Overall, 92 percent of breastfed children age 6-23 months receive solid or semisolid complementary foods in addition to breast milk. These complementary foods include fortified baby foods (8 percent), foods made from grains (88 percent), fruits and vegetables rich in vitamin A (35 percent), other fruits and vegetables (21 percent), and food made from

#### Table 11.4 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Nepal 2011

ny breast- feeding ≥36.0 31.4 31.1 33.9 27.8 33.3 33.8 31.4 29.8 34.0 ≥36.0 ≥36.0 ≥36.0 27.9 26.7	years <sup>1</sup> Exclusive breast- feeding 4.1 4.4 3.4 4.3 3.2 3.3 4.9 3.6 4.7 3.6 4.0 5.5	Predominant breast- feeding <sup>2</sup> 5.3 5.5 4.7 5.5 4.7 5.5 4.0 4.3 6.6 4.7 6.0 5.0 5.0 5.3 6.2
31.4 31.1 33.9 27.8 33.3 33.8 31.4 29.8 34.0 ≥36.0 ≥36.0 ≥36.0 ≥36.0	4.4 3.4 4.3 3.2 3.3 4.9 3.6 4.7 3.6 4.0 5.5	5.5 4.7 5.5 4.0 4.3 6.6 4.7 6.0 5.0 5.3 6.2
33.9 27.8 33.3 33.8 31.4 29.8 34.0 ≥36.0 ≥36.0 27.9 26.7	4.3 3.2 3.3 4.9 3.6 4.7 3.6 4.0 5.5	5.5 4.0 4.3 6.6 4.7 6.0 5.0 5.3 6.2
33.3 33.8 31.4 29.8 34.0 ≥36.0 ≥36.0 ≥36.0 27.9 26.7	3.3 4.9 3.6 4.7 3.6 4.0 5.5	4.3 6.6 4.7 6.0 5.0 5.3 6.2
29.8 34.0 ≥36.0 ≥36.0 ≥36.0 27.9 26.7	4.7 3.6 4.0 5.5	6.0 5.0 5.3 6.2
27.9 26.7	(0.0)	
31.2 28.8 ≥36.0 ≥36.0 ≥36.0 30.2 ≥36.0 32.2 ≥36.0 ≥36.0 ≥36.0	$(2.3) \\ * \\ (4.2) \\ (2.3) \\ (2.7) \\ (3.3) \\ (4.2) \\ (5.0) \\ (4.5) \\ 5.7 \\ 3.9 \\ (4.1) \\ (6.5) \\ \end{cases}$	(2.6) 5.2 (3.6) (4.5) (3.8) (4.7) (5.6) 6.4 7.2 5.9 (5.7) (7.0)
34.1 31.6 ≥36.0 29.3	5.2 4.7 3.4 2.8	7.0 5.5 4.3 4.0
32.8 ≥36.0 ≥36.0 29.5 31.2	4.6 4.6 4.7 4.3 2.2	5.3 5.9 6.0 5.5 3.4
		5.4
	31.6 ≥36.0 29.3 32.8 ≥36.0 ≥36.0 29.5	$\begin{array}{cccc} 31.6 & 4.7 \\ \geq 36.0 & 3.4 \\ 29.3 & 2.8 \\ \end{array}$ $\begin{array}{c} 32.8 & 4.6 \\ \geq 36.0 & 4.6 \\ \geq 36.0 & 4.7 \\ 29.5 & 4.3 \end{array}$

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. The median duration of any breastfeeding is shown as  $\geq$ 36.0 for groups in which the exact median cannot be calculated because the proportion of breastfeeding children under age 36 months. Includes children living and deceased at the time of the survey. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding.
<sup>2</sup> Either exclusively breastfed or received breast milk and plain water and/or nonmilk liquids only SLC = School Leaving Certificate

roots and tubers (65 percent). Children are also fed protein-rich foods such as legumes and nuts (49 percent); meat, fish, and poultry (17 percent); and eggs (9 percent). Other foods include cheese, yogurt, and other milk products (9 percent). Liquids other than breast milk fed to children in this age group include other milk (43 percent) and other liquids (33 percent). Use of infant formula is minimal (2 percent).

Table 11.5 also presents data on the types of complementary foods consumed by nonbreastfeeding children age 6-23 months. All nonbreastfeeding children are fed solid or semisolid foods, and consumption by type of food is higher among nonbreastfeeding children than breastfeeding children with the exception of consumption of fruits and vegetables rich in vitamin A, which is higher among breastfeeding than nonbreastfeeding children.

#### Table 11.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under two years of age who are living with the mother by type of foods consumed in the day or night preceding the interview, ccording to breastfeeding status and age, Nepal 201

		Liquids					Solid o	or semisolio	l foods					
Age in months	Infant formula	Other milk <sup>1</sup>	Other liquids <sup>2</sup>	Fortified baby foods	Food made from grains <sup>3</sup>	Fruits and vege- tables rich in vitamin A <sup>4</sup>	Other fruits and vege- tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk products	Any solid or semi- solid food	Number of children
						BREAST	FEEDING (	HILDREN						
0-1 2-3 4-5 6-8 9-11 12-17 18-23 6-23	0.8 1.0 1.5 2.6 3.7 2.6 0.8 2.2	5.0 11.2 22.1 38.0 46.1 41.8 45.4 42.8	0.0 1.0 4.2 21.2 33.3 37.1 35.0 32.8	0.3 0.8 3.4 9.3 11.6 7.3 5.3 7.7	0.0 0.2 13.0 54.1 88.5 96.2 98.9 87.7	0.0 0.0 1.8 15.1 22.9 40.9 47.0 34.9	0.0 0.0 1.9 10.2 15.6 22.1 29.1 20.9	0.0 0.0 5.2 26.9 54.3 76.3 81.4 64.8	0.0 0.0 4.6 27.4 49.6 55.7 53.6 48.6	0.0 0.0 0.4 3.8 8.3 21.1 25.2 17.0	0.0 0.2 6.2 7.5 9.2 10.8 8.8	0.0 0.3 1.1 5.2 7.1 8.0 12.4 8.6	0.3 2.9 22.7 65.5 93.1 99.0 100.0 91.9	129 203 194 266 215 481 410 1,372
Total	1.9	34.8	24.2	6.1	64.7	25.4	15.3	47.4	35.6	12.3	6.4	6.4	69.1	1,898
					N	ONBREAS	STFEEDING	G CHILDRE	N					
6-23	3.2	66.0	35.2	12.8	96.0	29.1	32.4	69.7	58.8	24.2	16.3	16.6	100.0	67

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night).

Other milk includes fresh, tinned, and powdered cow or other animal milk Does not include plain water

Includes fortified baby food

<sup>4</sup> Includes pumpkin, squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A

#### INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES 11.6

Table 11.6 presents the percentage of children less than age 2 living with their mother who are fed according to three IYCF practices, by breastfeeding status. These practices take into account the percentages of children for whom feeding practices meet minimum standards with respect to food diversity (i.e., the number of food groups consumed), feeding frequency (i.e., the number of times the child is fed), and consumption of breast milk or other types of milk or milk products. Breastfed children are considered to be fed within the minimum standards if they consume at least four food groups and receive food other than breast milk at least twice a day in the case of infants 6-8 months and at least three times a day in the case of children 9-23 months. Nonbreastfed children are considered to be fed in accordance with the minimum standards if they consume milk or milk products, are fed four food groups (including milk products), and are fed at least four times a day. However, because of the small percentage of nonbreastfed children in Nepal, a separate analysis for this group of children is not presented.

Table 11.6 shows that, among breastfed children age 6-23 months, 28 percent were given foods from four or more food groups in the 24 hours preceding the survey. Only 21 percent of children residing in the terai were given foods from four or more food groups, compared with 36 percent of children living in the hill zone. Children living in the Western region and Western hill subregion, children of mothers with an SLC and higher education, and children from the wealthiest households were more likely than their counterparts to receive foods from four or more food groups.

Seventy-eight percent of breastfed children were fed the minimum number of times in the previous 24 hours. The combined percentage of children who fall in both categories (given foods from four or more groups and fed the minimum number of times per day) is 25 percent. The proportion of breastfeeding children age 6-23 months who are given a variety of foods at least three times daily increases with the mother's level of education and wealth.

Ninety-nine percent of children age 6-23 months (both breastfed and nonbreastfed) are given either breast milk or other milk products. Twenty-nine percent of children are given foods from the appropriate number of food groups, and 79 percent are fed an appropriate number of times per day. Overall, 24 percent of Nepalese children are fed in accordance with the three recommended IYCF practices. The likelihood of children being fed appropriately also increases with mother's education and wealth quintile.

#### Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, Nepal 2011

	Among brea	stfed children 6	-23 months, pe	rcentage fed:	An	nong all childr	en 6-23 months	s, percentage f	ed:
Background characteristic	4+ food groups <sup>1</sup>	Minimum meal frequency <sup>2</sup>	Both 4+ food groups and minimum meal frequency	Number of breastfed children 6-23 months	Breast milk, milk, or milk products <sup>3</sup>	4+ food groups <sup>1</sup>	Minimum meal frequency <sup>4</sup>	With 3 IYCF practices	Number of all children 6-23 months
Age in months									
6-8	12.2	60.2	11.4	266	100.0	12.4	60.4	11.4	267
9-11	19.8	70.7	16.8	215	100.0	22.0	71.5	17.6	221
12-17 18-23	32.7 36.0	84.5 84.7	29.0 32.1	481 410	97.7 97.9	32.6 36.8	85.5 84.8	28.3 31.1	516 435
Sex									
Male	28.0	78.4	24.3	677	98.5	28.6	79.3	24.5	712
Female	27.4	77.0	25.0	695	98.5	28.3	77.7	24.3	727
Residence									
Urban	45.6	75.5	37.8	131	98.3	45.5	76.0	36.9	140
Rural	25.8	77.9	23.2	1,241	98.6	26.6	78.7	23.1	1,300
Ecological zone									
Mountain	25.1	80.1	23.0	118	98.9	25.7	80.4	22.3	122
Hill	36.2	82.6	33.0	571	99.0	36.4	82.8	32.9	590
Terai	21.1	73.2	17.9	683	98.1	22.5	74.6	17.9	727
Development region									
Eastern	31.8	83.3	29.6	326	98.2	31.4	83.9	29.1	340
Central	21.2	75.4	17.7	431	98.4	23.9	77.0	17.9	465
Western Mid-western	38.4 21.1	80.5 74.1	33.7 19.5	264 217	98.4 98.4	39.0 20.6	80.7 74.3	33.3 19.0	274 222
Far-western	28.1	74.1	25.2	135	100.0	20.0	74.3	25.7	138
Subregion Eastern mountain	39.9	88.1	34.6	28	98.5	40.6	87.5	32.9	29
Central mountain	26.2	84.1	26.2	29	98.6	28.3	84.6	25.5	30
Western mountain	18.0	74.6	16.4	62	99.2	17.6	75.2	16.0	64
Eastern hill	36.3	89.8	35.4	114	99.1	35.7	90.0	34.8	116
Central hill	40.6	77.6	35.8	130	99.2	41.3	78.1	36.0	138
Western hill	43.0	87.5	39.1	170	98.9	43.9	88.0	39.0	176
Mid-western hill	20.4	76.3	18.0	99	98.2	19.8	76.1	17.5	102
Far-western hill	32.8 27.7	76.2 78.5	29.8 25.3	58 184	100.0 97.6	32.8 27.4	76.2 79.7	29.8 25.1	58 195
Eastern terai Central terai	11.5	73.5	25.3 8.2	272	97.6	27.4 15.4	75.8	25.1	297
Western terai	30.2	67.7	23.9	94	97.6	30.2	67.7	23.0	98
Mid-western terai	25.9	72.8	25.2	81	98.7	25.3	73.2	24.6	83
Far-western terai	23.8	62.9	20.5	52	100.0	25.3	64.7	22.2	54
Mother's education									
No education	12.1	72.9	11.3	569	97.1	12.2	74.2	11.0	603
Primary	25.5	78.4	21.8	258	99.2	26.8	78.8	21.7	269
Some secondary	43.0	80.4	38.7	309	99.9	44.2	81.0	38.4	318
SLC and above	47.6	85.0	41.5	236	99.4	49.4	85.3	41.7	250
Wealth quintile			10.0	0.47	<b>22</b> (		70.0	10 7	
Lowest	14.5	76.1	13.9	347	99.1	14.2	76.3	13.7	354
Second	21.6	78.4	19.9	287	98.3	21.9	78.7	19.7	297
Middle Fourth	25.9 41.0	74.5 80.1	22.1 36.3	309 237	97.1 99.1	24.6 43.3	75.6 81.1	21.1 35.3	324 250
Highest	47.1	81.7	40.7	192	99.1 99.4	43.3 49.7	83.1	41.0	250
Total	27.7	77.7	24.6	1,372	98.5	28.5	78.5	24.4	1,439

Note: As the number of nonbreastfed children is small, it is not shown separately. Total includes nonbreastfed children.

<sup>1</sup> Food groups: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables (and red palm oil); d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts. <sup>2</sup> Foot preastfed children, minimum meal frequency is receiving solid or semisolid food at least twice a day for infants 6-8 months and at least three times a

<sup>4</sup> Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in note 2 for breastfed

children, and for nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day.

SLC = School Leaving Certificate

There have been changes in the definition of the standard IYCF indicators (such as the removal of "foods made with fats" as a food group, the requirement that breastfed children receive four instead of three food groups, the requirement that nonbreastfed children receive two or more servings of milk or milk products, and the removal of cheese from the milk or milk products group) from the 2006 NDHS, and thus direct comparisons of these indicators are problematic. However, for purposes of comparison, the data were recalculated based on the former IYCF definition, and results indicated that the percentage of children fed in accordance with the recommended three IYCF practices has decreased between 2006 (57 percent) and 2011 (44 percent). However, these results should be interpreted with caution, as they could be influenced by methodological differences in data collection (data not shown).

# 11.7 PREVALENCE OF ANEMIA IN CHILDREN

Anemia, characterized by a low level of hemoglobin in the blood, is a major health problem in Nepal, especially among young children and pregnant women. Anemia may be an underlying cause of maternal mortality, spontaneous abortions, premature births, and low birth weight. The most common cause of anemia is inadequate dietary intake of nutrients necessary for synthesis of hemoglobin, such as iron, folic acid, and vitamin B12. Anemia also results from sickle cell disease, malaria, and parasitic infections. A number of interventions have been put in place to address anemia in children. These include expanded distribution of multi-micronutrient powders; deworming of children age 1 to 5 years every six months, along with vitamin A distribution; and promotion of use of insecticide-treated mosquito nets for children under age 5 in malaria-endemic areas.

The 2011 NDHS used HemoCue rapid testing methodology to determine anemia levels among women age 15-49 and children under age 5. Table 11.7 presents anemia levels among children age 6 months to 5 years according to selected background characteristics. The results are based on children who stayed in the household the night before the interview. Hemoglobin was measured in 2,198 children. Unadjusted (i.e., measured) hemoglobin values were obtained using the HemoCue instrument. Given that hemoglobin requirements differ substantially depending on altitude, an adjustment to sea-level equivalents was made using CDC formulas before classifying children according to level of anemia (CDC, 1998).

Table 11.7 indicates that 46 percent of children in Nepal are anemic; 27 percent are mildly anemic, 18 percent are moderately anemic, and less than 1 percent are severely anemic. The prevalence of anemia among children under age 5 has declined by only 2 percentage points in the past five years.

The proportion with anemia is higher among children age 6-17 months (72-78 percent) than among children in other age groups. The prevalence of anemia among children age 6-23 months is 69 percent. Severe anemia, which has a serious impact on the health of an individual, is highest among children age 12-17 months (2 percent). Male children and children residing in urban areas are less likely to be anemic. The prevalence of anemia in children varies across ecological zones. Children in the terai are more anemic (50 percent) than children in the hill zone (41 percent). Children residing in the Far-western terai (60 percent) and Mid-western terai (57 percent) subregions are more likely to be anemic than children in the Central mountain (33 percent) and Mid-western hill (36 percent) subregions. There seems to be no significant linear relationship between anemia prevalence and mother's education or wealth quintile, although clearly children of mothers with no education are more likely to be anemic.

# Table 11.7 Prevalence of anemia in children

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		Anemia s	status by hemoglo	bin level	
Background	Any anemia	Mild anemia	Moderate anemia	Severe anemia	Number o
characteristic	(<11.0 g/dl)	(10.0-10.9 g/dl)	(7.0-9.9 g/dl)	(<7.0 g/dl)	children
Age in months					
6-8	78.3	37.1	40.4	0.7	118
9-11	73.5	37.3	35.4	0.8	109
12-17	72.2	38.5	32.0	1.7	261
18-23	56.6	29.3	26.7	0.7	217
24-35	43.6	27.6	15.9	0.2	495
36-47	38.1	26.0	12.1	0.0	512
48-59	25.0	17.5	7.0	0.5	486
6-23 months	68.6	35.2	32.3	1.1	705
Sex					
Male	43.4	26.6	16.2	0.6	1,119
Female	49.1	28.3	20.4	0.4	1,079
Deworming status					
Child not eligible (<12 months old) Received deworming medication	75.4	36.6	38.0	0.8	221
in the past 6 months	41.3	25.5	15.2	0.5	1,538
Did not receive deworming medication					,
in the past 6 months	50.6	29.2	21.3	0.2	344
Mother's interview status					
Interviewed	46.4	27.3	18.6	0.5	2,104
Not interviewed but in household	(45.7)	(26.6)	(19.1)	(0.0)	32
Not interviewed and not in household <sup>1</sup>	40.5	32.1	8.4	0.0	62
Residence					
Urban	41.2	22.9	17.9	0.4	188
Rural	46.7	27.9	18.3	0.5	2,011
					_,•••
Ecological zone	477	00.0	04.0	0.5	470
Mountain	47.7	26.0	21.2	0.5	179
Hill	41.0	24.6	16.0	0.3	902
Terai	50.2	29.9	19.7	0.6	1,118
Development region					
Eastern	47.2	27.6	19.1	0.5	534
Central	43.9	27.8	15.6	0.6	674
Western	45.5	29.4	16.1	0.0	408
Mid-western	47.8	24.9	21.9	0.9	336
Far-western	49.4	26.2	22.6	0.5	246
Subregion					
Eastern mountain	51.3	32.0	18.5	0.8	42
Central mountain	33.1	20.1	13.0	0.0	43
Western mountain	52.7	26.1	26.1	0.5	94
Eastern hill	42.3	22.1	20.2	0.0	180
Central hill	40.2	26.1	12.6	1.5	204
Western hill	43.6	27.4	16.2	0.0	260
Mid-western hill	36.0	21.4	14.7	0.0	152
Far-western hill	40.9	23.7	17.1	0.0	105
Eastern terai	49.5	30.2	18.6	0.7	312
Central terai	46.7	29.3	17.3	0.2	428
Western terai	48.8	32.9	15.9	0.0	148
Mid-western terai	56.9	28.4	26.5	2.0	128
Far-western terai	60.4	29.2	29.9	1.2	102
Mother's education <sup>2</sup>					
No education	50.1	29.2	20.1	0.8	1,036
Primary	42.6	29.2	17.7	0.8	421
Some secondary	42.8	24.7	17.8	0.2	421
Some secondary SLC and above	42.8	24.7 28.0	15.3	0.3	404 275
Wealth quintile					2.0
Lowest	45.3	26.9	18.1	0.3	584
Second	45.3 49.6	28.4	20.3	0.3	564 457
Middle	49.0 51.4	31.2	19.4	0.9	503
Fourth	43.3	23.3	19.4		366
Highest				0.1 0.4	
i lighest	37.5	25.6	11.5	0.4	288
Total	46.2	27.4	18.3	0.5	2,198

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anemia. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Hemoglobin is in grams per deciliter (g/dl). Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes children whose mothers are deceased
 <sup>2</sup> For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

SLC = School Leaving Certificate

# 11.8 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation. The 2011 NDHS collected information on consumption of foods rich in vitamin A and iron and the status of children receiving vitamin A capsules, iron supplements, and deworming during national campaigns.

Table 11.8 presents intake of key micronutrients among children. The table shows, by background characteristics, the percentage of youngest children age 6-23 months who are living with their mother and who consumed foods rich in vitamin A and iron in the day or night preceding the survey; the percentage of all children 6-59 months who were given vitamin A supplements in the six months preceding the survey and who were given iron supplements in the past seven days; the percentage of children 12-59 months who were given deworming medication in the six months preceding the survey; and, among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with iodized salt.

Vitamin A is an essential micronutrient for the immune system that plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD can also increase the severity of infections, such as measles and diarrheal diseases in children, and slow recovery from illness. Vitamin A is found in breast milk, other milk, liver, eggs, fish, butter, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for four to six months.

Forty-seven percent of children age 6-23 months consumed foods rich in vitamin A the day or night preceding the survey. The proportion of children consuming vitamin A-rich foods increases with age. There are only slight differences in consumption by sex and breastfeeding status. Urban children are more likely to consume vitamin A-rich foods (58 percent) than children in rural areas (46 percent). Children in the hill zone consume more vitamin A-rich foods (54 percent) than children in the terai (41 percent). At the subregional level, children in the Eastern mountain subregion (63 percent) are most likely to consume vitamin A-rich foods, and those in the Central terai subregion are least likely (35 percent). Mother's education correlates with level of consumption of vitamin A-rich foods: 40 percent of children whose mothers have no education consume vitamin A-rich foods, compared with 54 percent of children whose mothers have an SLC and higher education.

Iron is essential for cognitive development, and low iron intake can contribute to anemia. Iron requirements are greatest at age 6-23 months, when growth is extremely rapid. The results of the 2011 NDHS (Table 11.8) show that one in four children consumed foods rich in iron in the 24 hours prior to the survey and that consumption of iron-rich foods is highest among children age 18-23 months, children in urban areas, children in the hill zone, children in the Eastern hill subregion, and children in the highest wealth quintile. Children whose mothers have some secondary education are twice as likely to consume iron-rich foods as those whose mothers have no education.

Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD. In Nepal, campaigns are in place for semiannual mass supplementation of vitamin A capsules (for children age 6-59 months) and distribution of deworming tablets (for children age 12-59 moths) since the past 15 years under the National Nutrition Program.

The 2011 NDHS collected data on vitamin A supplements for children under age 5. Table 11.8 shows that 90 percent of children age 6-59 months were given vitamin A supplements in the six months before the survey. The proportion of children receiving a vitamin A supplement increases with age from 70 percent at 6-8 months to 93 percent at 24-35 months before declining to 91 percent at 48-59 months. Children in rural areas are more likely to receive vitamin A supplements (91 percent) than those in urban areas (86 percent). There is only a slight difference in the proportion of children receiving vitamin A supplements by ecological zone and subregion. Similarly, mother's education and wealth do not have an impact on use of vitamin A supplementation.

#### Table 11.8 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey; among all eligible children 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey and who were given iron supplements in the past seven days; among all eligible children 12-59 months, the percentage who were given deworming medication in the six months preceding the survey; and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with adequately iodized salt, by background characteristics, Nepal 2011

	Among youngest children age 6-23 months living with the mother:		Among all elig age 6-59		Among all c 6-59 m	hildren age onths:	Among all eliq age 12-59	gible children months:	Among children age 6-59 months living in households tested for iodized salt:		
Background characteristic	Percentage who consumed foods rich in vitamin A in last 24 hours <sup>1</sup>	Percentage who consumed foods rich in iron in last 24 hours <sup>2</sup>	Number of children	Percentage given vitamin A supplements in last 6 months	Number of children	Percentage given iron supplements in last 7 days	Number of children	Percentage given deworming medication in last 6 months <sup>3</sup>	Number of children	Percentage living in households with adequately iodized salt <sup>4,5</sup>	Number of children
Age in months 6-8 9-11 12-17 18-23 24-35 36-47 48-59	20.5 31.2 56.0 59.8 na na na	8.9 14.6 28.2 33.4 na na na	267 221 516 435 0 0 0	70.4 82.5 85.4 90.1 93.1 92.2 91.4	85 158 532 468 1,013 1,106 999	2.0 2.3 2.3 3.0 2.5 2.5	268 224 532 468 1,013 1,106 999	na 70.7 77.5 86.0 86.6 84.6	na 268 468 1,013 1,106 999	74.3 73.6 71.4 71.1 73.0 71.9 73.1	268 224 531 467 1,013 1,105 993
Sex Male Female	46.8 46.6	22.8 25.5	712 727	91.5 89.3	2,252 2,108	2.1 2.9	2,369 2,240	84.4 82.9	1,997 1,856	73.7 71.2	2,362 2,238
Breastfeeding status Breastfeeding Not breastfeeding	46.5 51.7	23.5 37.2	1,372 67	90.8 90.0	2,201 2,158	2.2 2.8	2,449 2,160	83.3 84.1	1,730 2,123	71.9 73.1	2,445 2,154
Mother's age at birth 15-19 20-29 30-39 40-49	35.6 47.3 51.6 43.2	24.9 25.2 20.7 15.1	160 979 268 32	87.9 90.1 90.8 95.8	230 2,855 1,073 202	3.0 2.3 2.7 4.1	263 3,027 1,117 202	82.6 83.9 83.8 81.6	163 2,523 971 195	69.5 74.4 70.2 60.1	263 3,023 1,111 202
<b>Residence</b> Urban Rural	57.7 45.6	30.6 23.4	140 1,300	86.4 90.8	421 3,939	2.1 2.6	440 4,168	79.9 84.1	371 3,482	90.6 70.6	440 4,160
Ecological zone Mountain Hill Terai	46.2 54.1 40.8	22.1 28.9 20.6	122 590 727	92.6 90.5 90.0	350 1,764 2,245	4.6 2.8 1.9	363 1,858 2,387	88.1 87.0 80.5	303 1,557 1,993	71.2 70.4 74.3	362 1,857 2,380
Development region Eastern Central Western Mid-western Far-western	52.9 42.3 51.7 40.1 47.4	33.6 18.8 25.9 19.3 23.2	340 465 274 222 138	93.4 88.1 88.8 90.8 92.6	1,040 1,383 806 653 478	2.3 1.9 0.8 6.1 2.8	1,099 1,466 851 696 497	86.5 78.8 83.5 85.6 89.1	934 1,200 715 577 427	76.2 75.1 82.8 63.8 51.2	1,099 1,463 848 693 497
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	62.5 47.0 38.4 57.5 57.6 59.8 37.6 50.9 48.7 34.7 37.2 43.4 48.4	36.6 20.7 16.0 44.2 30.4 27.0 19.6 17.2 26.9 13.2 23.8 20.9 32.1	29 30 64 116 138 176 102 58 195 297 98 83 54	93.8 91.1 92.7 94.6 89.1 88.9 89.6 92.1 92.8 87.4 88.6 92.1 92.5	83 85 182 340 426 492 306 616 872 314 244 199	0.8 1.4 7.8 0.9 3.2 0.8 8.6 1.4 3.3 1.3 0.7 0.4 4.6	87 87 189 363 441 520 328 207 649 938 331 263 207	93.8 88.0 85.6 89.2 86.3 83.1 87.5 93.5 84.1 74.4 84.1 85.0 84.2	71 73 159 307 364 437 272 177 556 763 278 217 217 179	78.5 71.7 67.7 79.4 72.0 78.4 64.2 40.9 74.1 76.8 89.9 57.5 60.2	87 86 189 363 441 520 326 207 649 935 328 261 207
Mother's education No education Primary Some secondary SLC and above	40.1 47.4 52.9 54.2	17.0 25.5 35.2 25.7	603 269 318 250	88.5 92.0 92.7 91.5	2,083 892 840 545	2.9 2.3 1.4 3.0	2,179 921 892 616	80.6 85.5 87.3 87.7	1,885 794 712 463	60.8 74.1 85.7 92.3	2,171 920 892 616
Wealth quintile Lowest Second Middle Fourth Highest	47.4 46.6 39.9 49.8 52.7	19.5 23.3 20.7 28.5 33.0	354 297 324 250 214	89.4 89.7 91.4 91.3 90.8	1,154 966 871 747 623	4.5 1.4 1.6 2.7 1.7	1,201 1,003 944 790 671	83.7 81.8 84.0 84.8 85.0	1,031 861 764 648 549	53.4 65.9 73.9 87.7 96.6	1,197 1,000 944 788 671

Note: Information on vitamin A is based on both mother's recall and the immunization card (where available). Information on iron supplements and deworming medication is based on the mother's recall. Children are considered eligible for receiving Vitamin A (6-59 months) and deworming medication (12-59 months) based on their age at the date of distribution campaign. na = Not applicable

na = Not applicable 1 Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A. 2 Includes meat (and organ meat) 3 Deworning for intestinal parasites is commonly done for helminthes. 4 Excludes children in households in which salt was not tested 5 Salt with 15 ppm or more iodine SLC = School Leaving Certificate

Use of multiple micronutrient powder (MNP) has proved to be effective in reducing anemia among children, and studies have shown a 45 percent decrease in anemia with this intervention (UNICEF, 2009). The government of Nepal, with assistance from the World Food Program (WFP) and UNICEF, has been distributing MNPs (locally known as "Vita-Mishran" and "Baal Vita") in selected districts of the country since 2009. The

target population for the WFP-sponsored Vita Mishran is children age 6-59 months, while Baal Vita, supported by UNICEF, targets children age 6-24 months.

Although it is too early to expect wide national coverage, the 2011 NDHS collected baseline information on the distribution of these MNPs. The survey indicated that 3 percent of children age 6-59 months were given iron supplements in the form of an MNP in the seven days preceding the survey. Coverage was relatively higher among children in the Mid-western hill (9 percent) and Western mountain (8 percent) subregions, the target areas for the WFP initiative.

Certain types of intestinal parasites can cause anemia. Periodic deworming for organisms such as helminthes can improve children's micronutrient status. Table 11.8 shows that 84 percent of children age 6-59 months received deworming medication in the six months before the survey. Children in rural areas are more likely than children in urban areas to receive deworming medication. The likelihood of receiving deworming medication increases with the child's age, mother's education, and mother's wealth. Children in the Eastern mountain subregion are more likely to receive deworming medication (94 percent) than those in the Central terai subregion (74 percent).

Iodine deficiency, most frequently caused by inadequate iodine intake, has serious effects on body growth and mental development. Fortification of salt with iodine is the most common method of preventing iodine deficiency. In Nepal, the compound used for fortification of salt is potassium iodate (KIO3). According to the World Health Organization, a country's salt iodization program is considered to be on a good track in eliminating iodine deficiency when 90 percent of households are using iodized salt. Fortified salt that contains 15 parts of iodine per million parts of salt (15 ppm) is considered adequate for the prevention of iodine deficiency (ICCIDD, UNICEF, and WHO, 2001). To assess the use of iodized salt in Nepal, the 2011 NDHS included salt testing at the household level using the MBI rapid test kit. Interviewers asked households to provide a teaspoon of salt used for cooking. A recheck solution was used when the salt showed no change in color to lower the pH with high alkalinity, after which the salt was tested again.

The MBI rapid test kit provides a good qualitative indication of the presence or absence of iodine. It cannot give a precise measurement of the iodine content in salt. However, as studies indicate that use of iodized salt in Nepal is universal (MOHP, New ERA, and Micronutrient Initiative, 2005), the interest from a program perspective has been in assessing the proportion of households using adequately iodized salt (15+ ppm). Given that baseline data using the MBI kit were available on the proportion of households using adequately iodized salt from the Iodine Deficiency Survey 2005, an assessment of the percentage of households using adequately iodized salt was carried out in the 2011 NDHS. Notably, the 2011 NDHS results also show that more than 95 percent of households are using iodized salt, indicating that Nepal is on track toward eliminating iodine deficiency (data not shown). The findings on salt iodization refer to children living in households with adequately iodized salt.

Table 11.8 shows that 73 percent of children live in households that use adequately iodized salt, with more children in urban (91 percent) than rural (71 percent) areas living in such households. The percentage of children living in households that use adequately iodized salt is lowest in the Far-western development region (51 percent), particularly the Far-western hill subregion (41 percent). Mother's education and household wealth are positively associated with the likelihood of children living in households with adequately iodized salt.

Eighty percent of households use salt that is adequately iodized (15+ ppm) (Table 11.9). The proportion of households that use adequately iodized salt has increased by 38 percent since 2005, when the figure was 58 percent (MOHP, New ERA, and Micronutrient Initiative, 2005). The percentage of households using adequately iodized salt is far larger in urban areas (94 percent) than in rural areas (78 percent).

A higher proportion of households in the terai (81 percent) than in the mountain zone (73 percent) are using salt that is adequately iodized. The Western, Central, and Eastern regions have the highest proportions of households using adequately iodized salt (88 percent, 84 percent, and 82 percent, respectively). A lower percentage of households in the Far-western hill subregion (43 percent) than in the Western terai subregion (92 percent) use adequately iodized salt. The proportion of households using adequately iodized salt rises steadily from 56 percent in the lowest wealth quintile to 98 percent in the highest wealth quintile.

#### Table 11.9 Presence of adequately iodized salt in household

Among all households, the percentage with salt tested for iodine content and the percentage with no salt in the household; and among households with salt tested, the percentage with adequately iodized salt, according to background characteristics, Nepal 2011

	Among all	households, the p		seholds with d salt:	
Background characteristic	With salt tested	With no salt in the household	Number of households	Percentage with adequately iodized salt <sup>1</sup>	Number of households
<b>Residence</b> Urban Rural	99.1 99.3	0.9 0.7	1,546 9,280	94.4 77.7	1,532 9,215
<b>Ecological zone</b> Mountain Hill Terai	99.3 99.5 99.1	0.7 0.5 0.9	761 4,563 5,502	72.6 79.7 81.4	756 4,538 5,453
Development region Eastern Central Western Mid-western Far-western	99.2 99.3 99.3 99.2 99.4	0.8 0.7 0.7 0.8 0.6	2,685 3,627 2,304 1,241 969	81.7 84.2 88.3 67.0 56.8	2,663 3,602 2,288 1,230 964
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	99.8 99.4 98.9 99.6 99.1 99.7 99.3 99.8 98.9 99.4 98.7 98.9 99.5	0.2 0.6 1.1 0.4 0.9 0.3 0.7 0.2 1.1 0.6 1.3 1.1 0.5	206 266 289 847 1,386 1,415 577 339 1,632 1,975 889 519 487	85.2 67.3 68.4 78.6 88.0 85.8 68.1 42.8 82.9 83.9 92.3 63.2 65.5	205 265 286 843 1,374 1,411 573 338 1,615 1,963 877 513 485
Wealth quintile Lowest Second Middle Fourth Highest Total	99.6 99.6 99.7 99.0 98.7 99.3	0.4 0.4 0.3 1.0 1.3 0.7	2,029 2,168 2,068 2,185 2,377 10,826	55.9 71.4 80.9 90.4 98.4 80.0	2,019 2,159 2,061 2,162 2,345 10,747
<sup>1</sup> Salt with 15 ppm or me	ore iodine				

# 11.9 NUTRITIONAL STATUS OF WOMEN

The nutritional status of women was assessed with two anthropometric indices: height and body mass index. BMI is expressed as the ratio of weight in kilograms to the square of height in meters  $(kg/m^2)$ . To derive these indices, the 2011 NDHS took height and weight measurements among women age 15-49. Women who were pregnant and women who had given birth in the two months preceding the survey were excluded from the analysis.

Short stature reflects poor socioeconomic conditions and inadequate nutrition during childhood and adolescence. In a woman, short stature is a risk factor for poor birth outcomes and obstetric complications. For example, short stature is associated with small pelvic size, which increases the likelihood of difficulty during delivery and the risk of bearing low birth weight babies. A woman is considered to be at risk if her height is below 145 cm.

According to Table 11.10, 12 percent of women are shorter than 145 cm. Adolescent women (age 15-19) are slightly less likely to be below 145 cm (10 percent) than older women. Women in rural areas are more likely to be below 145 cm (12 percent) than women in urban areas (8 percent). Women in the Western region are most likely to be shorter than 145 cm (14 percent), while women in the Far-western region are least likely (7 percent). Similarly, the highest proportion of women below 145 cm is in the Eastern mountain subregion (16 percent), while women from the Far-western and Mid-western terai are least likely to be below 145 cm (5 percent and 7 percent, respectively). The likelihood of being shorter than 145 cm decreases with level of education and wealth quintile.

BMI was used to measure thinness or obesity. A BMI below 18.5 indicates thinness or acute undernutrition, and a BMI of 25.0 or above indicates overweight or obesity. A BMI below 16 kg/m<sup>2</sup> indicates severe undernutrition and is associated with increased mortality. Low pre-pregnancy BMI, as with short stature, is associated with poor birth outcomes and obstetric complications.

Table 11.10 shows that the mean BMI among women age 15-49 is 21 kg/m<sup>2</sup>. Mean BMI generally increases with age. Urban women have a slightly higher mean BMI (23 kg/m<sup>2</sup>) than rural women (21 kg/m<sup>2</sup>). There are only small differences in mean BMI among women living in the mountain, hill, and terai ecological zones. Variations by development region are also minimal. Mean BMI does not correlate with women's level of education. With regard to wealth, mean BMI shows a steady increase from 20 kg/m<sup>2</sup> among women in the lowest wealth quintile to  $23 \text{ kg/m}^2$  among those in the highest quintile.

#### Table 11.10 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Nepal 2011

		Body mass index <sup>1</sup>											
	Hei	ight		Normal		Thin		C	)verweight/obes	е			
Background characteristic	Percentage below 145 cm	Number of women	Mean BMI	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total over- weight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women		
Age													
15-19	10.1	1,348	20.0	71.2	25.8	15.4	10.4	2.9	2.6	0.3	1,266		
20-29	11.5	2,140	21.1	69.3	19.1	12.1	7.0	11.6	10.1	1.5	1,938		
30-39	11.6	1,531	22.3	69.0	12.2	8.0	4.2	18.8	15.8	3.0	1,475		
40-49	13.8	1,125	22.3	62.6	15.9	10.5	5.4	21.5	16.8	4.7	1,121		
Residence													
Urban	8.4	849	22.7	59.5	14.1	9.2	4.9	26.3	21.3	5.1	808		
Rural	12.1	5,295	21.2	69.8	18.8	11.8	7.0	11.4	9.6	1.8	4,992		
Ecological zone													
Mountain	13.6	399	21.0	75.2	16.5	12.8	3.6	8.4	6.9	1.5	371		
Hill	12.4	2,455	21.8	74.1	12.4	8.8	3.6	13.5	11.2	2.3	2,316		
Terai	10.8	3,291	21.2	63.3	22.7	13.3	9.4	14.0	11.7	2.3	3,112		
Development region													
Eastern	11.1	1,481	21.7	67.4	16.2	10.7	5.4	16.5	13.8	2.7	1,376		
Central	12.8	2,003	21.6	64.1	20.2	10.9	9.4	15.6	12.5	3.1	1,895		
Western	13.5	1,320	21.7	72.3	14.0	9.1	5.0	13.7	11.8	2.0	1,265		
Mid-western	10.2	711	20.8	72.7	19.3	12.8	6.5	8.0	6.7	1.2	661		
Far-western	6.5	629	20.3	70.8	23.9	18.6	5.3	5.3	4.9	0.4	603		
Subregion													
Eastern mountain	15.5	114	21.8	75.7	10.0	7.7	2.3	14.2	12.6	1.6	104		
Central mountain	13.4	125	21.2	75.6	14.9	10.7	4.2	9.5	6.7	2.8	118		
Western mountain	12.3	161	20.3	74.4	22.2	18.1	4.1	3.4	3.1	0.3	149		
Eastern hill	12.7	472	21.5	76.8	11.8	8.7	3.1	11.4	11.0	0.5	441		
Central hill	11.5	732	22.7	66.3	11.5	7.7	3.8	22.2	17.5	4.7	693		
Western hill	14.3	742	21.9	79.9	8.3	6.0	2.3	11.8	9.5	2.3	706		
Mid-western hill	11.9	307	20.8	73.7	18.6	12.8	5.8	7.7	7.1	0.6	286		
Far-western hill	8.3	202	19.8	75.1	23.4	17.9	5.5	1.5	1.4	0.1	191		
Eastern terai	9.7	896	21.8	61.3	19.3	12.2	7.1	19.4	15.4	4.0	831		
Central terai	13.7	1,147	20.9	61.5	26.4	12.9	13.5	12.1	10.0	2.1	1,084		
Western terai	12.5	578	21.5	62.6	21.3	13.0	8.3	16.1	14.6	1.5	559		
Mid-western terai Far-western terai	7.1 5.0	324 346	20.7 20.6	70.7 68.3	20.2 23.7	12.6 18.3	7.6 5.4	9.1 8.0	7.1 7.5	2.0 0.6	303 335		
	5.0	340	20.0	00.5	23.7	10.5	5.4	8.0	7.5	0.0	335		
Education													
No education	15.0	2,424	21.0	66.6	22.6	14.4	8.2	10.8	9.1	1.7	2,281		
Primary	12.7	1,075	21.7	68.9	15.5	8.9	6.6	15.5	12.4	3.1	1,026		
Some secondary SLC and above	9.6 6.0	1,510 1,135	21.5 21.8	72.0 66.7	15.3 15.2	9.6 10.2	5.7 4.9	12.7 18.2	10.5 15.6	2.3 2.5	1,427 1,065		
	0.0	1,100	21.0	00.7	10.2	10.2	4.5	10.2	10.0	2.0	1,005		
Wealth quintile	15.2	1 000	20.4	75 4	01 5	14.0	7.6	3.0	2.4	0.7	0.45		
Lowest Second	15.3 15.3	1,022 1,161	20.4 20.6	75.4 73.2	21.5 21.2	14.0	7.6 7.3	3.0 5.6	2.4 5.2	0.7 0.4	945 1.098		
Middle	15.3	1,161	20.6	73.2 69.5	21.2	13.9	7.3 8.0	5.6 9.0	5.2 7.7	0.4 1.3	1,098		
Fourth	7.8	1,271	20.8	69.5 68.0	21.5 16.6	10.3	6.4	9.0 15.4	13.3	2.1	1,100		
Highest	9.3	1,379	23.2	58.6	11.9	7.0	4.8	29.5	23.6	5.9	1,331		
•													
Total	11.6	6,145	21.4	68.3	18.2	11.5	6.7	13.5	11.2	2.2	5,800		

Note: Body mass index is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m<sup>2</sup>). <sup>1</sup> Excludes pregnant women and women with a birth in the preceding two months SLC = School Leaving Certificate

Eighteen percent of women of reproductive age are thin or undernourished (BMI <  $18.5 \text{ kg/m}^2$ ). The proportions of mild thinness ( $17.0-18.4 \text{ kg/m}^2$ ) and moderate and severe thinness ( $<17 \text{ kg/m}^2$ ) are 12 percent and 7 percent, respectively. Despite the absence of a linear correlation with age, the data show that adolescents (age 15-19) are most likely to be thin (26 percent). Rural women are more likely to be thin (19 percent) than urban women (14 percent). The proportion of women in the terai who are thin (23 percent) is almost double the proportion in the hill zone (12 percent). A notably higher percentage of women in the Far-western development region (24 percent) than in the Western region (14 percent) are thin. Among subregions, the highest proportion of thinness is in the Central terai subregion (26 percent) and the lowest is in the Western hill subregion (8 percent). Thinness is more common among women with no education (23 percent) than among women with an SLC and higher level of education (15 percent). Women in the lowest wealth quintile are more likely to be thin (22 percent) than women in the highest wealth quintile (12 percent).

Eleven percent of women are overweight (BMI 25-29 kg/m<sup>2</sup>), and 2 percent are obese (BMI 30 kg/m<sup>2</sup> or above). The prevalence of overweight/obesity has increased by 5 percentage points since 2006. Younger women are less likely than older women to be overweight or obese. For example, 3 percent of women age 15-19 are overweight or obese, compared with 22 percent of women age 40-49. Urban women are more likely to be overweight/obese (26 percent) than rural women (11 percent). Ecologically, the proportion of overweight/obese women is higher in the terai and hill zones (14 percent each) than in the mountain zone (8 percent). The Eastern development region has the highest proportion of overweight or obese women (17 percent) and the Far-western and Mid-western regions the lowest (5 percent and 8 percent, respectively). Among the subregions, the highest proportions of overweight or obese women are seen in the Central hill and Eastern terai subregions (22 percent and 19 percent, respectively), while the lowest proportions are observed in the Far-western hill and Western mountain subregions (2 percent and 3 percent, respectively). Overweight and obesity are positively correlated with wealth quintile: the proportion of overweight/obese women increases steadily from 3 percent in the lowest wealth quintile.

# 11.10 PREVALENCE OF ANEMIA IN WOMEN

In Nepal, a number of interventions have been put in place to address anemia in women. These include supplementation of iron with folic acid tablets for pregnant women from the second trimester to 45 days following delivery, deworming of pregnant women after completion of the first trimester, postpartum vitamin A supplements, and promotion of the use of insecticide-treated mosquito nets for pregnant women in malaria-endemic areas.

Table 11.11 presents anemia prevalence among women age 15-49 based on hemoglobin levels, according to selected background characteristics. Raw measured hemoglobin levels were obtained with the HemoCue instrument and adjusted by altitude and smoking status (if known) using CDC formulas (CDC, 1998).

Table 11.11 shows that 35 percent of women age 15-49 are anemic, 6 percent are moderately anemic, and a very small proportion are severely anemic (0.3 percent). Anemia prevalence has declined by only 1 percentage point since the 2006 NDHS. There is also no difference in the prevalence of mild and moderate anemia between the two surveys.

The prevalence of anemia is associated with maternity status. Pregnant women are more likely to be anemic (48 percent) than women who are breastfeeding (39 percent) and women who are neither pregnant nor breastfeeding (33 percent). This could be due to the high demand for iron and folic acid during pregnancy. Anemia is more prevalent in rural areas (36 percent) than in urban areas (28 percent). Anemia prevalence is higher among women in the terai (42 percent) than among women in the mountain or hill zone (27 percent). Notable variations can be seen across subregions. Women in the Mid-western terai and Eastern terai subregions are more likely to be anemic (49 percent and 45 percent, respectively) than women in the Central mountain and Central hill subregions (19 percent and 20 percent, respectively). Women's level of education does not have a substantial impact on their likelihood of suffering from anemia. Surprisingly, the prevalence of anemia is lower among women who smoke than among those who do not (30 percent versus 36 percent).

#### Table 11.11 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, Nepal 2011

	_	Anemia status by hemoglobin level										
Background	Not pregnant:	Any <12.0 g/dl	Mild 10.0-11.9 g/dl	Moderate 7.0-9.9 g/dl	Severe <7.0 g/dl	— Number of						
characteristic	Pregnant:	<11.0 g/dl	10.0-10.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	women						
Age												
15-19		38.5	32.5	5.7	0.4	1,341						
20-29		35.9	29.8	5.9	0.3	2,113						
30-39		32.4	26.0	6.0	0.4	1,513						
40-49		32.5	27.0	5.2	0.3	1,121						
Number of child	dren ever born											
0		36.2	29.9	5.9	0.5	1,828						
1		34.6	30.1	4.4	0.2	850						
2-3		34.2	28.0	5.9	0.2	2,088						
4-5		33.3 37.8	26.4 32.1	6.4 5.4	0.5 0.2	900 422						
6+		57.0	32.1	5.4	0.2	422						
Maternity status	S											
Pregnant		47.6	29.3	17.7	0.5	293						
Breastfeeding		38.9	32.7	6.0	0.2	1,348						
Neither		33.0	27.8	4.9	0.4	4,447						
Using IUD												
Yes		40.8	33.4	7.4	0.0	63						
No		34.9	28.9	5.7	0.3	6,025						
						-,'						
Smoking status		20.9	00.4	6 4	0.2	600						
Smokes cigare Does not smok		29.8 35.6	23.1 29.6	6.4 5.7	0.3 0.3	630 5,458						
DUES HULSHICK	e	55.0	29.0	5.7	0.5	5,456						
Residence												
Urban		27.6	22.5	4.7	0.4	836						
Rural		36.2	29.9	5.9	0.3	5,252						
Ecological zone	<b>`</b>											
Mountain	•	26.9	21.1	5.5	0.3	399						
Hill		26.9	22.6	3.8	0.5	2.436						
Terai		42.0	34.6	7.2	0.2	3,252						
						-, -						
Development re	egion	27.4	20.0	6.5	0.1	1 465						
Eastern		37.4	30.9		0.1	1,465						
Central Western		32.8 34.5	27.4 29.8	5.0 4.2	0.4	1,980 1,314						
Mid-western		36.2	29.0	4.2 7.2	0.5	704						
Far-western		35.9	28.0	7.7	0.2	624						
		00.0	20.0	1.1	0.2	024						
Subregion												
Eastern mount		26.5	20.7	5.6	0.3	114						
Central mounta		19.2	17.8	1.5	0.0	124						
Western mount	tain	33.1	24.0	8.5	0.6	161						
Eastern hill		26.1	21.3	4.6	0.2	472						
Central hill		19.5	15.8 31.4	3.2 4.0	0.5 0.5	716						
Western hill Mid-western hil	u	35.9 22.5	17.7	4.0	0.5	737 308						
Far-western hil		28.8	25.6	2.8	0.3	202						
Eastern terai	1	44.9	37.4	7.6	0.0	880						
Central terai		42.6	35.7	6.6	0.0	1,139						
Western terai		32.7	27.8	4.5	0.4	576						
Mid-western te	rai	49.0	39.1	9.0	0.8	316						
Far-western ter		41.9	30.8	11.1	0.0	341						
						- · ·						
Education		07 4	20.0	7.0	0.0	0.400						
No education		37.4	29.8	7.3	0.3	2,403						
Primary Some seconda	171	31.9 33 7	28.3	3.2 5.4	0.4	1,068						
Some seconda SLC and above		33.7 34.5	27.8 29.1	5.4 5.2	0.4 0.2	1,498 1,119						
	-	34.3	23.1	5.2	0.2	1,119						
Wealth quintile												
Lowest		34.5	27.8	6.3	0.4	1,024						
Second		35.4	28.6	6.3	0.4	1,152						
Middle		38.6	31.8	6.4	0.4	1,265						
Fourth		35.5	30.3	5.1	0.1	1,297						
Highest		31.2	26.0	4.8	0.4	1,350						
Total		35.0	28.9	5.7	0.3	6,088						
			_0.0	<b>U</b> .1	0.0	3,000						

SLC = School Leaving Certificate

# **11.11 MICRONUTRIENT INTAKE AMONG MOTHERS**

Adequate micronutrient intake by women has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects the mother and infant against anemia, which is considered a major cause of perinatal and maternal mortality. Anemia also results in an increased risk of premature delivery and low birth weight. Finally, iodine deficiency is related to a number of adverse pregnancy outcomes including abortion, fetal brain damage and congenital malformation, stillbirth, and prenatal death.

In Nepal, micronutrient deficiency among pregnant and lactating mothers is a common public health problem. Thus, the 2011 NDHS collected data on use of vitamin A and iron-folic acid supplements among women age 15-49 with a child born in the past five years, use of deworming medication during the last pregnancy, and the percentage of women living in households with iodized salt according to background characteristics.

A single dose of vitamin A is typically given to women within 45 days of childbirth, aimed at increasing the mother's vitamin A level and the content of the vitamin in breast milk for the benefit of the child. Because of the risk of teratogenesis (abnormal development of the fetus) resulting from high doses of vitamin A during pregnancy, the dose should not be given to pregnant women. The MOHP policy regarding maternal vitamin A supplementation is (as mentioned above) to provide a high-dose vitamin A capsule (200,000 IU) within the first 45 days after delivery (MOHP, 2004b). However, the new WHO guidelines on postpartum vitamin A supplements do not recommend providing vitamin A to postpartum women, and the policy needs to be reviewed (WHO, 2011).

Table 11.12 includes measures that are useful in assessing micronutrient intake by women during pregnancy and for two months after birth (postpartum period). The findings show that only 40 percent of women received a vitamin A dose during the postpartum period. There is no substantial variation across ecological zones. A slight difference can be seen among women who received postpartum vitamin A by urban and rural residence (46 percent and 40 percent, respectively). Women in the Far-western region were most likely to take vitamin A during the postpartum period (56 percent), while women in the Central region were least likely to do so (30 percent). The proportion of women taking vitamin A after childbirth was highest in the Far-western terai subregion (66 percent) and lowest in the Central terai subregion (24 percent). Women with an SLC and higher education were more than twice as likely as mothers with no education to have received a vitamin A supplement within two months of childbirth (62 and 28 percent, respectively). The prevalence of postpartum vitamin A supplementation increases with wealth, from 29 percent in the lowest quintile to 55 percent in the highest quintile.

Nutritional deficiencies such as anemia are often exacerbated during pregnancy because of the additional nutrient demands associated with fetal growth. Iron status can be enhanced by including iron supplements in food consumed by women, improving women's diets, and controlling parasites and malaria. Iron supplementation is necessary for pregnant women because their needs are usually too high to be met solely by food intake. Pregnant women are advised to take an iron tablet daily throughout their pregnancy and lactating period, starting from the second trimester and continuing to 45 days after childbirth (MOHP, 2004b). According to Table 11.12, 56 percent of women took iron tablets daily for 90 or more days during their last pregnancy. Five percent took iron supplements for 60 to 89 days, and 19 percent took supplements for fewer than 60 days. Twenty percent of pregnant women did not take iron supplements at all.

The proportion of women taking daily iron supplements for 90 or more days differs substantially between urban and rural areas (68 percent and 54 percent, respectively). Pregnant women in the terai are more likely to take iron supplements daily for 90 or more days (58 percent) than those in the mountain zone (49 percent). The proportion of women taking iron tablets for at least 90 days is highest in the Far-western region (71 percent) and lowest in the Central region (50 percent). Across the subregions, the Far-western terai subregion has the highest proportion of women taking iron supplements for at least 90 days (84 percent), while the Central terai subregion has the lowest proportion (44 percent). The proportion of pregnant women who take iron supplements daily for 90 or more days is related to age, level of education, and wealth quintile. Women with an SLC and higher level of education are more likely to take iron tablets for 90 or more days (84 percent) than women with no education (40 percent). Women in the highest wealth quintile are more than twice as likely to take iron tablets for 90 or more days (79 percent) as those in the lowest wealth quintile (37 percent).

#### Table 11.12 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child, the percent distribution by number of days they took iron tablets or syrup during the pregnancy of the last child, and the percentage who took deworming medication during the pregnancy of the last child; and among women age 15-49 with a child born in the past five years and who live in households that were tested for iodized salt, the percentage who live in households with adequately iodized salt, by background characteristics, Nepal 2011

	Among women with a childbirth in the past five years:										
	Percentage	Number		omen too regnancy		blets or syru	ıp during	Percentage of women who took deworming		Among women women in the last five in household tested for iodi	e years who s that were
Background characteristic	who received vitamin A dose postpartum <sup>1</sup>	None	<60	60-89	90+	Don't know/ missing	Total	medication during pregnancy of last birth	Number of women	Percentage living in households with adequately iodized salt <sup>2,3</sup>	Number of women
Age 15-19 20-29 30-39 40-49	32.5 44.5 35.8 18.8	14.1 16.1 27.3 56.0	18.9 18.9 18.8 18.4	3.9 4.8 4.6 4.3	62.8 60.0 49.2 20.3	0.4 0.2 0.2 1.0	100.0 100.0 100.0 100.0	63.1 59.1 47.5 26.4	333 2,639 986 190	71.9 76.8 72.6 58.5	333 2,635 981 190
<b>Residence</b> Urban Rural	45.8 39.7	11.1 21.5	16.0 19.2	4.5 4.7	68.3 54.4	0.0 0.2	100.0 100.0	49.8 55.7	418 3,730	91.8 72.6	418 3,721
<b>Ecological zone</b> Mountain Hill Terai	39.9 41.4 39.4	27.0 25.0 16.0	17.6 16.0 21.2	6.6 4.3 4.7	48.7 54.5 57.9	0.0 0.3 0.2	100.0 100.0 100.0	58.2 50.9 58.0	306 1,669 2,174	72.5 72.7 76.2	305 1,668 2,166
Development region Eastern Central Western Mid-western Far-western	43.2 30.4 44.0 40.4 55.7	17.2 23.4 20.9 25.4 11.5	20.6 21.8 16.7 16.7 13.0	4.7 4.7 5.0 4.2 4.5	57.3 49.9 56.9 53.6 71.0	0.2 0.1 0.6 0.0 0.0	100.0 100.0 100.0 100.0 100.0	60.9 41.8 54.2 62.2 73.3	999 1,293 818 598 440	77.9 77.3 83.9 65.2 54.0	999 1,290 814 595 440
Subregion Eastern mountain Central mountain Western mountain Eastern hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	52.0 42.5 32.6 39.3 40.8 39.6 42.0 51.2 44.2 24.1 50.5 42.3 66.3	24.8 28.0 27.6 26.1 22.1 26.4 32.1 13.6 11.1 23.6 12.6 16.7 4.3	20.2 19.5 15.5 20.4 13.1 16.1 13.2 18.3 20.7 26.4 17.5 21.3 7.6	5.4 4.6 8.2 4.8 2.9 5.4 3.3 4.6 4.5 5.6 4.3 3.0 4.3	49.6 48.0 48.7 48.6 61.4 51.2 51.4 63.5 63.3 44.3 65.2 58.9 83.8	$\begin{array}{c} 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.4\\ 0.8\\ 0.0\\ 0.0\\ 0.4\\ 0.0\\ 0.4\\ 0.0\\ 0.4\\ 0.0\\ 0.0$	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	63.1 50.9 59.2 53.3 39.7 48.2 57.4 69.7 64.9 42.1 63.0 68.4 81.8	78 72 155 331 403 488 275 171 589 818 330 238 200	80.0 73.1 68.4 78.0 78.5 79.3 65.4 41.6 77.5 77.1 90.9 61.5 62.4	78 72 155 331 403 488 274 171 589 815 326 236 200
Education No education Primary Some secondary SLC and above	27.8 41.0 49.8 62.3	31.0 21.2 10.1 2.8	23.8 21.7 13.0 8.6	5.2 4.5 4.5 3.8	39.8 52.4 72.2 84.3	0.2 0.2 0.1 0.4	100.0 100.0 100.0 100.0	44.4 56.4 67.7 67.2	1,822 835 866 627	62.5 75.7 85.6 92.6	1,815 832 866 626
Wealth quintile Lowest Second Middle Fourth Highest Total	29.1 36.6 38.7 48.7 54.5 40.3	38.2 22.2 17.8 11.4 5.2 20.4	19.1 22.0 22.8 15.9 12.2 18.8	5.1 4.4 5.7 5.1 2.6 4.7	37.3 51.4 53.6 67.5 79.4 55.8	0.4 0.0 0.1 0.0 0.6 0.2	100.0 100.0 100.0 100.0 100.0 100.0	43.8 55.8 58.9 61.7 58.7 55.1	979 899 873 748 649 4,148	54.6 66.9 76.5 87.6 97.4 74.5	976 897 871 746 649 4,139

<sup>1</sup> In the first two months after delivery

<sup>2</sup> Excludes women in households where salt was not tested <sup>3</sup> Salt with 15 ppm or more iodine

SLC = School Leaving Certificate

Overall, only 38 percent of pregnant women took iron tablets for 180 days or more as recommended (data not shown separately). However, this is an improvement over 2006, when only 7 percent of women took the recommended dose (MOHP, New ERA, and Macro International Inc., 2007). Forty-one percent of women took iron tablets after childbirth, and one in two women took them for 45 days or more (data not shown separately).

Helminth (intestinal parasites) infections are one of the factors contributing to anemia among pregnant women. Deworming during pregnancy is a cost-effective intervention against intestinal worms that allows better absorption of nutrients and iron, thus reducing the prevalence of anemia. In Nepal, the Ministry of Health and Population has approved and implemented a policy to provide deworming medication (MOHP, 2004b).

Table 11.12 shows that 55 percent of women took deworming medication during their last pregnancy. Rural women are more likely to take deworming medication (56 percent) than urban women (50 percent). Women in the hill zone are less likely to take deworming tablets (51 percent) than women in the terai and mountain zone (58 percent). At the regional level, women in the Far-western region are most likely to take deworming medication (73 percent), while women in the Central region least likely (42 percent). There is a strong association between women's education and wealth status and their intake of deworming medication. The proportion of women taking deworming medication (44 percent). The proportion of pregnant women taking deworming tablets to the fourth wealth quintile (44 percent to 62 percent) before decreasing slightly among women in the highest quintile (59 percent).

Iodine deficiency has adverse effects on all population groups, but women of reproductive age are often the most affected. As mentioned, iodine deficiency is related to adverse pregnancy outcomes such as abortion, fetal brain damage and congenital malformation, stillbirth, and perinatal death. As a result, use of iodized salt by women of reproductive age is emphasized.

Table 11.12 shows that three in four women with a child born in the five years preceding the survey live in households with adequately iodized salt. The Western region has the highest proportion of women living in households with adequately iodized salt (84 percent), while the Far-western region has the lowest (54 percent). At the subregional level, women in the Western terai subregion are most likely to live in households using adequately iodized salt (91 percent), while women in the Far-western hill subregion are least likely to live in such households (42 percent). The proportion of women living in households using adequately iodized salt is positively related to educational level and wealth status.

#### **Key Findings:**

- Eighty-six percent of women and 97 percent of men age 15-49 have heard of AIDS.
- Comprehensive knowledge of AIDS is not widespread among either women (21 percent) or men (30 percent).
- Only about one in four women (27 percent) and men (29 percent) know of ways to prevent mother-to-child transmission of HIV.
- Overall, half of women and men age 15-49 express accepting attitudes toward people living with AIDS.
- Thirteen percent of sexually active women and 3 percent of sexually active men age 15-49
  reported having had a sexually transmitted infection (STI) and/or STI symptoms in the 12
  months prior to the survey.
- One-quarter of female and one-third of male youths age 15-24 have comprehensive knowledge of AIDS.

## **12.1** INTRODUCTION

According to the 2010 UNAIDS report on the global AIDS epidemic, an estimated 64,000 adults and children in Nepal were living with HIV by the end of 2009 (up from 60,000 in 2001), of whom 20,000 were women age 15 and older (NCASC, 2010a). In addition, an estimated 4,800 people were newly infected with HIV in 2009, and there were 4,700 deaths due to AIDS in that year, up from 4,000 in 2001. Since 1988, when the first case of AIDS was detected in Nepal, the HIV situation in the country has evolved from a low prevalence of cases to an epidemic concentrated among several key affected populations: injecting drug users, female sex workers (FSWs) and their clients, and men who have sex with men (MSM). As in other developing countries, transmission of HIV in Nepal is driven by factors such as poverty, low literacy levels, low levels of male and female condom use, cultural and religious factors, and stigma and discrimination.

Nepal's National HIV Strategic Information Plan is based on the second generation surveillance approach. As part of that plan, the National Centre for AIDS and STD Control (NCASC) within the Department of Health has been conducting Integrated Bio-behavioral and Surveillance Surveys at planned intervals since 2002 among at-risk groups. The survey results show that HIV/AIDS is concentrated among the key affected populations mentioned above to varying degrees and that commercial sex, sharing of injecting needles, and migration to India are the primary risk factors. In 2009, estimated HIV prevalence was highest among injecting drug users (9 percent), followed by MSM (3 percent), FSWs (2 percent), and migrants (1 percent) (NCASC, 2010a). Additionally, the NCASC reports that HIV infections are more common among men than women, as well as in urban areas and the Far-western region of the country, where migrant labor is more widespread.

Despite the challenges involved in scaling up and sustaining HIV programs at a high level, Nepal has made progress in several areas. The NCASC is the main government agency responsible for implementing prevention programs and providing technical guidance in the HIV and AIDS response. Many new initiatives have been undertaken since the development of the first AIDS policy. In 1995, a national HIV/AIDS policy was endorsed, with 12 key policy statements and supportive structures including the National AIDS Coordination Committee and the District AIDS Coordination Committee, to guide and coordinate the response at the central and district levels. In 2002, the National AIDS Council (NAC), chaired by the prime minister, was established to raise the profile of HIV/AIDS in the country. The NAC was intended to set overall policy, lead high-level advocacy, and provide overall guidance and direction to the national HIV/AIDS program (Ministry of Health and Population [MOHP], 2011a).

The first five-year national HIV/AIDS strategy, developed in 2002, focused on prevention, care, and support for the most-at-risk populations. The second national HIV and AIDS strategy (2006-2011) has focused on lowering the prevalence of HIV among these populations, reducing the vulnerability of young people, and providing quality treatment and care to infected as well as affected people (MOHP, 2011a). The second national policy on HIV and sexually transmitted infections (STIs) was developed recently with the vision of reducing the HIV infection rate and establishing an HIV and AIDS- and STI-free society (MOHP, 2010c). Based on this policy, the 2011-2015 HIV/AIDS strategy is currently being updated and finalized. The three-year interim plan identifies managing the HIV epidemic as a high priority in the health sector. The plan focuses on the need for prevention programs within an overall broader program that addresses the need for treatment, care, and support of people living with HIV/AIDS. The government is also committed to various global initiatives such as the UNGASS Declaration, the Millennium Development Goals, the universal access initiative, and the "three ones" principles. The national HIV/AIDS strategy (2006-2011) aims at achieving all HIV and AIDS commitments and targets included within these initiatives (MOHP, 2011a).

The 2011 NDHS included a series of questions on knowledge of HIV/AIDS, attitudes toward AIDS, and related behavior. All women and men age 15-49 were first asked whether they had ever heard of AIDS. Those who had heard of AIDS were asked about their knowledge of HIV transmission and prevention. Respondents were also asked whether they had used condoms to prevent HIV and about their perception of the precautions a person can take to avoid becoming infected with HIV. Additional questions dealt with common local misconceptions regarding the mode of transmission of HIV. This chapter presents current levels of HIV/AIDS knowledge, attitudes, and related behaviors in the general adult population. The chapter also focuses on HIV/AIDS knowledge and patterns of sexual activity among youth, as young people are the main target of many HIV prevention efforts.

## 12.2 HIV AND AIDS KNOWLEDGE, TRANSMISSION, AND PREVENTION METHODS

#### 12.2.1 Knowledge of AIDS

Table 12.1 shows that 86 percent of women and 97 percent of men age 15-49 have heard of AIDS. There are notable differences in awareness among women by background characteristics. Knowledge of AIDS declines with age, being higher among women younger than age 40 than among women age 40-49. Nevermarried women are more likely to have heard of AIDS than married women. Knowledge of AIDS among women is higher in the hill zone than in the terai and mountain zone. Knowledge is also higher among women in the Far-western development region than among women in the other four development regions. Knowledge of AIDS is universal among women with a School Leaving Certificate (SLC) or higher level of education; however, only slightly more than 70 percent of women with no education have heard of AIDS. Similarly, awareness is lowest among women living in the poorest households and highest among women living in the wealthiest households. There is little variation in AIDS awareness among men because of the very high percentage of men who have heard of AIDS.

Over the past five years, the percentage of women age 15-49 who have heard of AIDS has increased by 19 percent. Knowledge among men in the same age group has increased as well (by 6 percent), but not as much as among women. The increase in the percentage of women and men who have heard of AIDS can be attributed to the intensive HIV and AIDS prevention programs administered through nongovernmental organizations (NGOs), international NGOs, and the private and public sectors in the past decade. The NCASC has focused on awareness programs through government health facilities using mass media (radio, television, and print media), as well as through female community health volunteers across the 75 districts of the country.

Table 12.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Nepal 2011

	Wo	men	Men		
Background characteristic	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men	
Age					
15-24	89.0	5,050	98.1	1,663	
15-19	88.7	2,753	97.0	978	
20-24	89.3	2,297	99.7	685	
25-29	86.8	2,101	98.0	581	
30-39 40-49	85.9 80.6	3,291 2,232	96.4 94.1	1,041 836	
Marital status					
Never married	91.7	2,708	97.8	1,433	
Ever had sex	*	18	99.4	352	
Never had sex	91.7	2,691	97.3	1,081	
Married	85.0	9,608	96.4	2,626	
Divorced/separated/widowed	81.8	358	(92.3)	62	
Residence Urban	94.7	1,819	99.1	717	
Rural	94.7 85.0	10,819	99.1 96.4	3,404	
Ecological zone		,		,	
Mountain	85.9	805	97.0	245	
Hill	93.9	5,090	97.4	1,658	
Terai	80.7	6,779	96.4	2,218	
Development region					
Eastern	91.5	3,057	98.9	996	
Central	78.7	4,236	95.0	1,448	
Western	90.2	2,660	98.3	798	
Mid-western Far-western	84.9 93.2	1,478 1,242	94.1 99.1	493 385	
Subregion					
Eastern mountain	89.5	229	98.5	66	
Central mountain	89.9	258	95.8	69	
Western mountain	80.2	319	96.8	110	
Eastern hill	93.6	956	98.1	293	
Central hill	95.6	1,563	97.8	616	
Western hill	93.5	1,513	97.2	440	
Mid-western hill Far-western hill	90.2 96.1	649 409	94.4 99.5	189 120	
Eastern terai	90.7	1,873	99.3	638	
Central terai	66.6	2,415	92.7	763	
Western terai	85.8	1,147	99.6	358	
Mid-western terai	84.1	668	93.9	242	
Far-western terai	91.3	676	98.6	217	
Education	74.0		04.0		
No education	71.3	5,045	84.8	567	
Primary Some secondary	89.8 98.3	2,209 3,088	95.3 99.6	814 1,437	
SUC and above	98.3 99.9	2,331	100.0	1,437	
Wealth quintile					
Lowest	77.9	2,120	90.8	610	
Second	79.1	2,393	94.2	695	
Middle	82.6	2,600	97.5	830	
Fourth Highest	91.6 97.2	2,722 2,839	99.3 99.4	920 1,066	
Total 15-49	86.3		96.8	4,121	
10(a) 13-49	00.3	12,674	90.0	4,121	

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

### 12.2.2 Knowledge of HIV Prevention Methods

HIV is mainly transmitted through heterosexual contact. Nepal's national HIV prevention program has sought to reduce sexual transmission of the virus by promoting HIV prevention programs that focus their messages and efforts on important aspects of behavior. Most HIV/AIDS programs that target the general population promote being faithful to a partner and condom use as the primary ways of avoiding HIV infection among sexually active men and women, who make up the majority of all adults in virtually every population. To ascertain whether programs have effectively communicated these messages, respondents were asked specific questions about whether it is possible to reduce the chances of getting the AIDS virus by having just one faithful uninfected sexual partner and using a condom during every sexual encounter.

Table 12.2 shows that knowledge of HIV prevention methods is high in Nepal. Seventy-four percent of women and 89 percent of men know that using condoms every time they have sexual intercourse prevents the spread of HIV. Seventy-nine percent of women and 89 percent of men know that limiting sexual intercourse to one uninfected partner who has no other partners can reduce the chances of contracting HIV. Seventy-one percent of women and 84 percent of men know that both using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of HIV infection.

### Table 12.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, by background characteristics, Nepal 2011

		Won	nen			Me	n	
		Limiting sexual intercourse to one	Using condoms and limiting sexual intercourse to one			Limiting sexual intercourse to one	Using condoms and limiting sexual intercourse to one	
Background characteristic	Using condoms <sup>1</sup>	uninfected partner <sup>2</sup>	uninfected partner <sup>2</sup>	Number of women	Using condoms <sup>1</sup>	uninfected partner <sup>2</sup>	uninfected partner <sup>2</sup>	Number o men
Age								
15-24	78.9	83.6	76.6	5,050	91.7	91.5	87.0	1,663
15-19	78.2	83.7	76.0	2,753	90.1	91.3	85.9	978
20-24	79.8	83.4	77.2	2,297	94.0	91.7	88.5	685
25-29	76.3	80.3	73.4	2,101	89.9	92.0	85.6	581
30-39 40-49	74.0 62.0	77.7 68.0	70.3 57.5	3,291 2,232	88.7 85.1	87.2 85.0	83.7 79.0	1,041 836
	02.0	00.0	57.5	2,202	00.1	00.0	75.0	000
Marital status Never married	82.6	87.4	80.8	2,708	91.5	91.6	87.3	1,433
Ever had sex	*	*	*	18	94.0	92.9	88.6	352
Never had sex	82.5	87.3	80.7	2,691	90.7	91.2	86.9	1,081
Married	72.2	76.7	68.7	9,608	88.7	88.4	83.4	2,626
Divorced/separated/widowed	64.6	70.2	59.4	358	(65.4)	(65.4)	(55.5)	62
Residence								
Urban	84.8	88.0	81.5	1,819	89.9	91.1	84.5	717
Rural	72.5	77.2	69.3	10,855	89.3	88.8	84.3	3,404
Ecological zone								
Mountain	72.1	78.5	68.8	805	90.8	93.6	88.4	245
Hill	80.9	85.7	77.3	5,090	91.4	89.9	85.6	1,658
Terai	69.5	73.6	66.7	6,779	87.7	88.1	83.0	2,218
Development region								
Eastern	77.6	83.7	73.7	3,057	91.2	91.7	86.4	996
Central	66.0	69.3	62.6	4,236	87.1	87.0	82.0	1,448
Western	79.4	83.7	76.9	2,660	92.6	89.1	86.2	798
Mid-western Far-western	74.5 82.5	78.9 88.1	72.5 79.3	1,478 1,242	85.7 91.1	86.2 94.5	81.5 87.6	493 385
	02.0	00.1	10.0	1,212	01.1	01.0	01.0	000
Subregion Eastern mountain	78.8	85.4	76.9	229	89.8	90.5	84.6	66
Central mountain	75.0	82.1	72.5	258	90.3	95.2	89.7	69
Western mountain	64.9	70.7	60.1	319	91.7	94.5	89.9	110
Eastern hill	80.1	87.8	77.1	956	91.0	95.0	87.9	293
Central hill	82.3	85.6	77.5	1,563	91.0	87.5	83.4	616
Western hill	80.7	84.5	77.3	1,513	91.5	87.3	84.1	440
Mid-western hill	76.3	81.7	73.4	649	89.9	91.0	86.9	189
Far-western hill	85.8	91.7	82.8	409	96.5	97.5	94.5	120
Eastern terai	76.2	81.4	71.5	1,873	91.4	90.3	86.0	638
Central terai	54.6	57.4	52.0	2,415	83.7	85.8	80.2	763
Western terai Mid-western terai	77.5 78.0	82.6 80.9	76.2 77.0	1,147 668	94.0 81.8	91.4 81.1	88.7 76.0	358 242
Far-western terai	81.6	87.3	79.2	676	86.9	92.1	82.2	242
Education	-	-	-					
No education	54.4	59.8	50.1	5,045	70.3	71.3	63.4	567
Primary	77.8	80.7	73.5	2,209	85.1	81.8	76.2	814
Some secondary	89.3	94.4	87.2	3,088	92.9	93.9	89.0	1,437
SLC and above	93.9	97.4	92.6	2,331	96.4	96.4	93.4	1,303
Wealth quintile								
Lowest	59.7	65.8	55.6	2,120	80.0	79.5	74.0	610
Second	65.9	71.1	62.7	2,393	85.8	85.3	79.7	695
Middle	70.7	74.7	67.2	2,600	90.3	91.7	86.6	830
Fourth	81.2	85.0	77.9	2,722	91.6	90.3	85.8	920
Highest	88.7	92.6	86.6	2,839	94.4	94.1	90.3	1,066
Total 15-49	74.2	78.8	71.1	12,674	89.4	89.2	84.3	4,121

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate <sup>1</sup> Using condoms every time they have sexual intercourse <sup>2</sup> Partner who has no other partners

Knowledge of HIV prevention methods is higher among young women (age 15-24) than among older women. Also, women who have never been married and who have never had sex are more likely to know of HIV prevention methods (81 percent) than married women (69 percent) and women who are divorced, separated, and widowed (59 percent). Knowledge of HIV prevention methods is higher among women in urban than rural areas (82 percent and 69 percent, respectively). Seventy-seven percent of women living in the hill zone know that both using condoms and being faithful reduce the risk of HIV transmission, compared with 67 percent of women in the terai and 69 percent of women in the mountain zone. Knowledge of HIV prevention methods increases with level of education and wealth quintile.

A similar pattern of differences by background characteristics is seen among men, although the differences are less pronounced. In contrast to women, however, knowledge of prevention methods is higher among men in the mountain zone than among men in the hill and terai areas. This result was different than in 2006, when men in the mountain zone were less aware of prevention methods (67 percent in 2006 versus 88 percent in 2011). In comparison to findings from the 2006 NDHS, knowledge of HIV prevention methods has increased among women in all regions. Women and men with no education and those from the poorest households are least likely to be aware of HIV prevention methods.

### 12.2.3 Comprehensive Knowledge of HIV and AIDS Transmission

As part of the effort to assess HIV and AIDS knowledge, the 2011 NDHS collected information on common misconceptions about HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have HIV and whether they believe HIV is transmitted through mosquito bites, touching someone who has AIDS, or sharing food with a person who has HIV or AIDS. Comprehensive knowledge is defined as knowing that consistent condom use and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission in Nepal: that HIV can be transmitted by mosquito bites and that HIV can be transmitted by sharing food with a person who has AIDS.

Tables 12.3.1 and 12.3.2 show that many Nepalese adults lack accurate knowledge about the ways in which the AIDS virus is transmitted. Seventy-four percent of women know that a healthy-looking person can have HIV, compared with 85 percent of men. Only 28 percent of women and 39 percent of men know that HIV cannot be transmitted by mosquitoes. The fact that a majority of men and women still have this misconception indicates that the government should focus on awareness programs to reduce these misconceptions. Fifty-three percent of women and 67 percent of men believe that HIV cannot be transmitted by sharing food with a person who has AIDS, and 69 percent of women and 81 percent of men believe that HIV cannot be transmitted by touching a person who has AIDS. Only 21 percent of women and 30 percent of men have comprehensive knowledge about AIDS. There has not been much change in comprehensive knowledge of HIV among women over the past five years, and there has been a decline in knowledge among men. The results of the 2006 NDHS showed that 20 percent of women and 36 percent of men age 15-49 had comprehensive knowledge of AIDS prevention and transmission, indicating that the government needs to do much more to increase awareness and knowledge of HIV and AIDS among the public.

#### Table 12.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission and prevention of AIDS virus, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Nepal 2011

	Perc	centage of respo	ndents who say	that:	Percentage who		
Background characteristic	A healthy- looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has the AIDS virus	The AIDS virus cannot be transmitted by touching someone who has AIDS	say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions <sup>1</sup>	Percentage with comprehensive knowledge about AIDS <sup>2</sup>	Number of women
Age							
15-24	77.8	33.4	61.7	75.8	28.0	25.8	5,050
15-19	77.9	32.1	61.8	76.7	27.2	25.0	2,753
20-24	77.6	34.9	61.5	74.8	28.9	26.7	2,297
25-29	75.0	30.5	56.6	70.5	25.2	23.9	2,101
30-39	73.3	25.0	49.2	66.9	20.2	18.5	3,291
40-49	64.8	15.4	38.2	56.9	10.2	9.2	2,232
Marital status							
Never married	81.0	40.3	70.4	82.8	34.7	32.4	2,708
Ever had sex	*	*	*	*	*	*	18
Never had sex	80.9	40.5	70.6	82.8	34.8	32.5	2,691
Married	72.1	24.3	49.0	65.8	19.1	17.6	9,608
Divorced/separated/widowed	69.0	18.0	43.0	59.8	15.6	13.8	358
Residence							
Urban	84.1	43.1	72.1	84.6	38.0	34.9	1,819
Rural	72.2	25.0	50.3	66.7	19.7	18.3	10,855
Ecological zono							
Ecological zone Mountain	74.9	17.8	35.1	54.9	10.9	10.0	805
Hill	80.7	28.8	58.1	75.0	23.7	22.3	5,090
Terai	68.6	27.8	52.1	66.7	22.7	20.7	6,779
	00.0	27.0	02.1	00.1	22.7	20.7	0,110
Development region	04.4	00.0		74.0	00.0	00.0	0.057
Eastern	81.1	29.6	54.5	74.8	22.9	20.3	3,057
Central	65.8 76.8	26.6 29.4	49.8 61.2	64.0 74.9	21.8 25.3	20.3 23.6	4,236 2,660
Western Mid-western	73.2	29.4	47.1	61.1	25.3 17.3	23.6 16.3	2,660
Far-western	78.3	20.9	54.1	71.5	22.6	21.6	1,242
	10.5	20.0	54.1	71.5	22.0	21.0	1,272
Subregion			40.0			40.0	
Eastern mountain	82.6	19.9	43.6	68.3	14.5	13.2	229
Central mountain Western mountain	76.5	20.0	39.9	54.9	12.6	12.0	258
Eastern hill	67.9 81.9	14.5 23.7	25.2 48.6	45.1 71.6	6.9 17.1	6.1 15.7	319 956
Central hill	84.0	39.3	68.2	83.2	34.5	32.2	1,563
Western hill	74.5	24.9	59.4	73.0	20.2	19.6	1,503
Mid-western hill	81.2	18.9	49.9	63.9	16.0	14.6	649
Far-western hill	87.9	30.5	50.4	77.1	22.5	21.7	409
Eastern terai	80.6	33.8	58.8	77.3	26.8	23.4	1,873
Central terai	52.8	19.1	39.0	52.5	14.6	13.6	2,415
Western terai	79.8	35.3	63.7	77.4	32.0	28.8	1,147
Mid-western terai	69.3	25.8	51.3	65.3	21.7	20.8	668
Far-western terai	72.3	31.6	61.6	71.1	25.9	24.8	676
Education							
No education	55.0	10.4	26.5	44.9	5.7	4.9	5.045
Primary	74.1	18.1	48.3	69.0	12.6	11.5	2,209
Some secondary	88.1	37.1	73.0	88.3	30.7	28.3	3,088
SLC and above	95.7	61.1	90.8	97.2	56.6	53.4	2,331
Wealth guintile							
Lowest	61.1	13.1	27.6	47.6	6.7	5.8	2,120
Second	65.8	15.8	39.1	57.6	12.0	11.0	2,393
Middle	67.8	21.4	47.0	64.9	15.3	14.2	2,600
Fourth	81.2	33.0	64.4	78.7	28.1	25.9	2,722
Highest	88.8	48.7	80.3	90.3	43.7	40.8	2,839
Ū.	73.9	27.6		60.2	22.4	20.7	
Total 15-49	13.9	21.0	53.4	69.3	22.4	20.7	12,674

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate <sup>1</sup> Two most common local misconceptions: AIDS can be transmitted by mosquito bites and a person can become infected by sharing food with someone who has AIDS. <sup>2</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission and prevention of the AIDS virus.

#### Table 12.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission and prevention of AIDS virus, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Nepal 2011

	Perc	entage of respo	ndents who say	that:	Percentage who		
Background characteristic	A healthy- looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has the AIDS virus	The AIDS virus cannot be transmitted by touching someone who has AIDS	say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions <sup>1</sup>	Percentage with comprehensive knowledge about AIDS <sup>2</sup>	Number of men
Age							
15-24 15-19 20-24 25-29 30-39 40-49	85.5 82.9 89.3 87.3 86.1 83.1	44.2 43.6 44.9 37.1 36.9 30.6	72.8 70.3 76.3 70.7 65.1 57.3	85.9 84.5 87.9 83.7 78.9 73.1	37.3 36.2 38.9 33.1 31.3 24.6	33.9 32.7 35.6 29.8 28.7 21.7	1,663 978 685 581 1,041 836
Marital status							
Marital status Never married Ever had sex Never had sex Married Divorced/separated/widowed	85.7 89.8 84.4 85.5 (79.0)	47.6 49.3 47.0 33.7 (37.2)	75.1 78.0 74.1 63.4 (59.4)	87.8 90.6 86.9 77.9 (71.4)	40.9 42.6 40.4 28.1 (30.4)	37.1 38.3 36.7 25.5 (24.4)	1,433 352 1,081 2,626 62
Residence							
Urban Rural	87.7 85.0	51.8 35.8	80.8 64.6	90.3 79.3	45.8 29.9	40.5 27.2	717 3,404
Ecological zone Mountain Hill	88.7 87.7 83.4	25.9 40.7 38.4	58.5 72.8 64.4	76.2 86.1 78.1	21.5 36.3 31.1	19.7 32.6 28.3	245 1,658
Terai	83.4	38.4	64.4	78.1	31.1	28.3	2,218
Development region Eastern Central Western Mid-western Far-western	87.6 82.6 85.5 83.7 92.6	35.5 38.3 43.5 35.8 41.0	67.6 64.2 73.2 63.5 72.1	82.1 78.9 87.5 71.2 87.5	29.4 31.9 37.4 30.7 36.6	26.8 28.7 33.4 28.5 32.9	996 1,448 798 493 385
Subregion							
Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	89.0 83.4 91.7 87.9 88.2 86.7 84.6 92.9 87.4 78.0 84.0 81.9 91.5	30.3 18.5 28.0 28.0 47.5 40.6 39.3 38.8 39.5 32.6 47.2 35.9 44.1	58.2 55.6 60.6 63.3 79.2 73.1 69.1 67.6 70.5 52.9 73.3 60.0 77.1	74.1 81.3 74.3 83.9 86.7 75.5 86.9 82.2 69.8 88.5 69.2 88.3	25.3 14.2 23.9 23.1 36.1 36.0 33.8 32.6 24.3 38.9 29.1 40.2	21.4 13.0 22.9 21.0 38.4 31.1 35.3 32.8 30.0 22.3 36.3 25.3 34.5	66 69 110 293 616 440 189 120 638 763 358 242 217
Education No education Primary Some secondary	68.1 81.5 87.5	9.9 19.0 39.4	27.3 50.0 72.6	47.4 70.1 86.8	6.0 13.6 31.7	4.4 11.2 28.5	567 814 1,437
SLC and above	93.1	62.4	90.0	96.7	57.2	53.1	1,303
Wealth quintile Lowest Second Middle Fourth Highest	77.7 80.9 84.0 87.5 92.2	18.8 24.5 32.3 44.5 58.8	46.1 53.5 61.7 75.9 85.8	64.9 73.3 77.6 86.4 94.1	15.1 18.7 24.6 39.8 51.8	12.8 17.2 22.9 35.0 47.6	610 695 830 920 1,066
Total 15-49	85.4	38.6	67.4	81.2	32.6	29.5	4,121

Note: Figures in parentheses are based on 25-49 unweighted cases.

SLC = School Leaving Certificate <sup>1</sup> Two most common local misconceptions: AIDS can be transmitted by mosquito bites and a person can become infected by sharing food with someone who has AIDS. <sup>2</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful

partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission and prevention of the AIDS virus.

Comprehensive knowledge of AIDS is lower among older men and women (age 40-49), married respondents, and rural residents than among their counterparts in the other categories. It is also lower among residents of the mountain zone, men in the Eastern region and women in the Mid-western region, men in the Central mountain subregion and women in the Western mountain subregion, women and men with no education, and those living in the poorest households.

## 12.3 KNOWLEDGE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

Increasing knowledge about prevention of mother-to-child transmission (PMTCT) of HIV and using antiretroviral medication before delivery to reduce transmission is critical. In Nepal, the PMTCT program was established in 2005, and it covers 21 sites (NCASC, 2010b). To assess PMTCT knowledge, respondents were asked whether HIV can be transmitted from a mother to a child through breastfeeding and whether a mother with HIV can reduce the risk of transmission to her baby by taking certain drugs during pregnancy.

Table 12.4 shows that 61 percent of women and 57 percent of men know that HIV can be transmitted through breastfeeding. Thirty-five percent of women and 44 percent of men know that the risk of mother-tochild transmission can be reduced if the mother takes special drugs during pregnancy. More than one in four women (27 percent) and men (29 percent) know of both ways to prevent mother-to-child transmission of HIV. Knowledge of PMTCT is higher among younger (age 15-24) than older (age 40-49) women and men and higher among married than formerly married respondents. There is little difference in women's knowledge of PMTCT (31 percent) than their counterparts in urban areas (21 percent). Respondents in the Far-western development region and the Far-western terai subregion are much more aware of PMTCT than their counterparts in other areas. Not surprisingly, women and men with no education and those from the poorest households are least likely to be aware of PMTCT. However, women and men with SLC and higher levels of education are also less likely to be aware about PMTCT.

Table 12.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Nepal 2011

		Wom	nen		Men					
		Percentage wh	no know that:			Percentage wh	no know that:			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men		
Age										
15-24	61.5	37.8	28.0	5,050	56.9	49.2	31.6	1,663		
15-19	61.6	39.0	29.1	2,753	58.8	50.1	34.7	978		
20-24	61.3	36.4	26.8	2,297	54.2	48.0	27.3	685		
25-29	59.6	34.7	25.7	2,101	54.3	41.2	27.8	581		
30-39	60.8	33.2	26.2	3,291	55.9	40.9	26.9	1,041		
40-49	62.1	29.6	24.7	2,232	60.6	38.0	28.0	836		
Marital status										
Never married	60.4	39.8	29.0	2,708	54.3	48.5	30.9	1,433		
Ever had sex	*	*	*	18	56.0	49.9	33.3	352		
Never had sex	60.4	39.9	29.0	2,691	53.7	48.0	30.1	1,081		
Married	61.3	33.4	26.0	9,608	58.7	41.4	28.6	2,626		
Divorced/separated/widowed	60.9	29.4	24.5	358	(47.4)	(31.2)	(12.7)	62		
Pregnancy status										
Pregnant	60.0	34.4	27.3	621	na	na	na	na		
Not pregnant or not sure	61.2	34.7	26.5	12,053	na	na	na	na		
Residence										
Urban	57.1	36.5	25.1	1,819	48.3	39.0	20.9	717		
Rural	61.8	34.4	26.8	10,855	58.8	44.7	30.9	3,404		
Ecological zone										
Mountain	69.8	33.2	29.2	805	70.3	37.8	30.1	245		
Hill	65.3	34.6	26.4	5,090	55.0	41.7	26.4	1,658		
Terai	56.9	34.9	26.4	6,779	57.0	45.9	31.1	2,218		
Development region			-	-, -			-	, -		
Eastern	68.1	40.9	32.3	3,057	61.7	55.3	38.1	996		
Central	54.2	28.3	21.2	4,236	53.5	39.0	25.8	990 1,448		
Western	54.2 56.5	20.3 32.8	21.2	4,230	53.5	39.0 34.4	25.0 19.4	798		
Mid-western	62.9	35.3	28.6	1,478	58.2	34.6	24.8	493		
Far-western	75.2	44.5	36.3	1,470	66.2	62.5	44.4	385		
	7.5.2	11.0	00.0	1,272	00.2	02.0				
								Continued		

		Wom	nen			Me	n	
		Percentage whe	o knows that:			Percentage wh	o knows that:	
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number o men
Subregion								
Eastern mountain	78.0	38.3	34.2	229	68.5	41.8	32.9	66
Central mountain	70.6	29.8	26.8	258	62.6	37.9	28.1	69
Western mountain	63.3	32.2	27.6	319	76.1	35.3	29.8	110
Eastern hill	74.9	38.9	32.5	956	62.5	52.8	37.0	293
Central hill	61.1	35.1	24.9	1,563	45.2	36.1	18.1	616
Western hill	57.6	26.5	18.6	1,513	54.3	36.1	21.5	440
Mid-western hill	70.4	40.0	32.9	649	64.1	45.8	36.6	189
Far-western hill	80.1	43.6	37.1	409	75.7	57.8	45.2	120
Eastern terai	63.5	42.1	32.0	1,873	60.6	57.9	39.2	638
Central terai	48.0	23.6	18.3	2,415	59.5	41.5	31.8	763
Western terai	54.9	41.2	28.4	1,147	49.8	32.3	16.9	358
Mid-western terai	57.2	32.2	25.0	668	49.4	26.5	14.7	242
Far-western terai	73.3	47.2	37.5	676	58.4	70.0	46.7	217
Education								
No education	57.6	24.8	22.0	5,045	57.3	28.8	24.3	567
Primary	68.9	37.6	31.4	2,209	63.0	38.2	29.1	814
Some secondary	66.2	42.7	30.8	3,088	61.4	50.8	34.8	1,437
SLC and above	54.5	42.6	26.2	2,331	48.3	45.9	25.1	1,303
Wealth quintile								
Lowest	63.4	25.9	22.9	2,120	60.8	34.3	27.2	610
Second	62.5	29.8	25.1	2,393	61.3	43.8	33.6	695
Middle	61.2	32.6	26.5	2,600	63.0	46.1	32.0	830
Fourth	63.9	41.5	30.3	2,722	56.1	48.1	30.8	920
Highest	55.4	40.7	27.1	2,839	48.2	43.5	23.7	1,066
Total 15-49	61.1	34.7	26.6	12,674	57.0	43.7	29.2	4,121

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

na = Not applicable

# 12.4 ACCEPTING ATTITUDES TOWARD THOSE LIVING WITH HIV AND AIDS

The HIV and AIDS epidemic has generated fear, anxiety, and prejudice against people living with HIV and AIDS. There is widespread stigma and discrimination against people who are HIV positive. These societal attitudes can adversely affect both people's willingness to be tested for HIV and their initiation of and adherence to antiretroviral therapy. Reducing stigma and discrimination is therefore an important factor in the prevention, management, and control of the HIV epidemic.

In the 2011 NDHS, women and men who had heard of AIDS were asked a number of questions to assess the level of stigma associated with HIV and AIDS. Tables 12.5.1 and 12.5.2 present results for women and men age 15-49, respectively. Similar proportions of women and men reported that they would be willing to take care of a family member with HIV at home (91 percent and 92 percent, respectively). However, men were slightly more likely than women to say that they would buy fresh vegetables from a shopkeeper who has HIV (75 percent versus 69 percent) and to think that a female teacher with HIV should be allowed to continue teaching (82 percent versus 79 percent). Women were much more likely than men not to want to keep secret a family member's infection with HIV (73 percent versus 65 percent).

Overall, half of women and men are likely to express accepting attitudes regarding all four situations. Accepting attitudes are generally more common among respondents in urban areas than among those in rural areas and increase with education and wealth. Women in the terai are more likely to express accepting attitudes toward people living with HIV or AIDS (54 percent) than those in the other ecological zones. Among men, those in the hill region are more likely to express accepting attitudes (52 percent) than those in the mountain and terai regions (45 percent each).

### Table 12.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Nepal 2011

		Percentage of re	espondents who:		_	
Background characteristic	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	91.9	76.4	84.7	72.5	54.4	4,493
15-19	92.1	76.1	85.1	72.9	54.4	2,442
20-24	91.6	76.7	84.2	72.1	54.4	2,051
25-29	91.1	71.7	81.6	73.3	50.3	1,825
30-39	90.4	65.3	75.7	73.5	47.2	2,829
40-49	87.7	55.6	68.4	75.1	40.5	1,798
Marital status						
Never married	93.0	80.9	88.7	74.3	58.9	2,484
Ever had sex	*	*	*	*	*	18
Never had sex	93.0	81.0	88.8	74.5	59.2	2,467
Married	90.1	66.1	76.5	73.0	47.0	8,167
Divorced/separated/widowed	86.8	61.6	72.7	73.0	42.4	293
·						
Residence	00.4	04.0	00.0	00.0	54.0	4 700
Urban	93.4	81.6	89.3	68.9	54.6	1,722
Rural	90.2	67.0	77.3	74.1	48.6	9,222
Ecological zone						
Mountain	86.4	48.6	62.3	70.2	32.7	692
Hill	88.4	66.8	77.4	73.3	47.1	4,782
Terai	93.2	74.2	82.9	73.7	53.9	5,470
Development region						
	90.6	68.6	81.3	74.6	49.6	2.798
Eastern Central	90.6 93.3	74.1	83.4	74.6 73.7	49.6 52.6	2,798
Western	93.3 89.6	70.0	77.2	75.4	52.0	2,398
Mid-western	89.6 87.1	61.7	69.9	75.4 64.8	52.9 39.7	
Far-western	89.2	64.1	76.2	74.0	44.7	1,255 1,159
i di-westerri	09.2	04.1	70.2	74.0	44.7	1,155
Subregion						
Eastern mountain	85.0	58.4	73.6	78.4	42.4	205
Central mountain	84.1	49.9	61.8	75.3	33.3	232
Western mountain	89.5	39.6	53.7	59.0	24.5	256
Eastern hill	88.7	62.6	77.0	78.6	46.2	895
Central hill	91.4	79.5	89.0	70.8	53.6	1,494
Western hill	86.2	61.1	68.9	76.4	46.3	1,413
Mid-western hill	85.3	60.3	70.4	63.6	37.1	586
Far-western hill	88.6	58.1	75.3	74.0	41.9	393
Eastern terai	92.3	73.0	84.4	72.1	52.2	1,698
Central terai	96.4	72.6	81.3	76.2	54.4	1,608
Western terai	94.4	82.8	88.9	73.9	62.3	984
Mid-western terai	88.4	68.8	74.4	67.9	46.4	562
Far-western terai	89.8	72.6	80.6	77.0	50.4	617
Education						
No education	87.3	49.5	62.5	69.9	33.1	3,595
Primary	87.8	63.1	76.7	71.7	43.5	1,984
Some secondary	92.4	78.8	86.9	77.1	58.9	3,036
SLC and above	96.1	92.9	96.9	75.1	67.9	2,329
Wealth guintile						
Lowest	83.8	47.2	60.9	68.5	24.0	1 654
Second	83.8	47.2 57.6	60.9 68.7	68.5 72.6	31.3 39.8	1,651
Middle	89.2 90.4	66.2	77.2	72.6	39.8 48.3	1,892 2,149
Fourth	90.4 92.6	76.2	86.2	76.3	40.3 56.9	2,149
Highest	92.6 94.3	86.8	92.6	76.3 72.7	61.5	2,494 2,758
Total 15-49	90.7	69.3	79.2	73.3	49.6	10,944

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

### Table 12.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Nepal 2011

Background         in the respondent's horne         as the ADS virus continue centing         infected with twis indicator         on all four with as the ADS instruction         with as the ADS virus indicator         on all four instruction         with as the ADS instruction           Age Age 25-24         91.6         7.8.8         82.5         63.2         45.5         94.9           25-24         93.0         80.5         86.3         64.4         50.2         683.3           25-29         92.1         78.0         84.5         68.0         52.4         57.0           30-33         91.5         73.5         80.3         85.3         65.4         50.5         1.402           Advist         82.2         80.3         85.3         65.4         50.5         1.402           Ever had sex         22.0         83.3         86.4         65.8         50.5         1.402           Divorced/separated/widowed         91.4         72.5         80.4         65.1         46.2         2.532           Marida         91.0         73.3         80.0         64.1         45.5         3.280           Divorced/separated/widowed         91.0         73.3         80.0         64.1         45.5         2.138			Percentage of re	espondents who:		_	
15-24       91.6       77.8       84.1       63.7       47.5       1,632         15-19       90.6       75.8       82.5       63.2       45.5       949         20-24       93.0       80.5       86.3       64.4       60.0       62.4       47.0       1,003         30-33       91.5       73.5       80.3       64.0       47.0       1,003         40-49       92.1       65.5       77.9       67.0       44.5       787         Marital status       "       "       Nover hard sex       92.9       83.9       84.4       65.8       65.6       1,002       2,232         Maried       91.4       72.5       80.4       65.1       46.2       2,532       2,532         Divorced/separate/widowed       (93.0)       (62.5)       (71.6)       (51.7)       (28.9)       57         Residence       "       "       "       "       "       3       3       80.0       64.1       45.5       3,280         Ecological zone       "       "       Mountain       88.7       70.4       81.5       75.2       67.3       46.0       9       73.3       80.0       99       80.4		for a family member with AIDS in the respondent's	vegetables from shopkeeper who	teacher who has the AIDS virus but is not sick should be allowed to	keep secret that a family member got infected with the	expressing accepting attitudes on all four	Number of men who have heard of AIDS
15-19       90.6       75.8       82.5       63.2       45.5       94.9         25-29       92.1       78.0       84.5       66.0       62.4       57.0         30-39       91.5       73.5       80.3       64.0       67.0       1.003         40-49       92.1       69.5       77.9       67.0       44.5       77.9         Marital staus							
20-24         93.0         90.5         96.3         64.4         50.2         68.3           30-39         91.5         73.5         80.3         64.0         47.0         1.003           Marial status            77.9         67.0         44.5         780           Marial status             77.9         67.0         44.5         780           Never maried         52.2         80.3         85.3         65.4         65.1         46.2         2.532           Maried         91.4         72.5         80.4         65.1         46.2         2.532           Divorced/separated/widowed         (93.0)         (62.5)         (71.6)         (51.7)         (28.9)         57           Residence           14.5         3.280         64.1         45.5         3.280           Ecological sone           14.5         73.3         80.0         64.1         45.0         2.383           Opelogical sone           73.0         79.5         60.2         44.5         3.766           Constain         85.7         76.6         85.3 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
25-29         92.1         78.0         84.5         68.0         52.4         570           40-49         92.1         69.5         77.9         67.0         44.5         787           Marital staus							
30-39         91.5         73.5         80.3         64.0         47.0         1.003           Moret married         92.1         69.5         77.9         67.0         44.5         77.9           Married issues         92.9         83.9         84.3         65.4         65.4         50.5         1.402           Newer married         92.9         83.9         84.3         65.4         66.0         94.5         1.402           Newer married         91.4         72.5         80.4         65.1         46.2         2.532           Morried issex         91.4         72.5         80.4         65.1         46.2         2.532           Divorced/separated/widowed         93.0         93.3         91.3         69.3         56.5         71.1           Residence         Westam         91.0         73.3         80.0         64.1         45.5         3.280           Ecological zone         Westam         93.8         76.6         85.3         70.4         51.7         1.616           Mountain         83.7         70.4         81.5         72.3         44.6         2.138           Development region         Easten         90.9         80.4							
40-49         92.1         69.5         77.9         67.0         44.5         787           Marital status							
Marial status         .           Never married         9.2.2         80.3         85.4         65.4         50.5         1.402           Ever had sex         9.2.2         80.3         84.4         63.8         50.6         1.402           Never had sex         9.14         72.5         80.4         66.1         46.5         2.527           Residence         .							
Never married         92.2         80.3         85.3         65.4         50.5         1.402           Ever had sex         92.0         79.1         85.6         66.0         49.5         1.052           Married         91.4         72.5         80.4         65.1         46.2         2.532           Divorced/separated/widowed         (93.0)         (62.5)         (71.6)         (51.7)         (28.9)         57           Residence          33.3         91.3         69.3         56.5         71.1           Rural         91.0         73.3         80.0         61.1         45.5         3.280           Ecological zone           10.5         72.3         45.0         238           Development region          88.7         70.4         81.5         72.3         45.0         9.376           Central         92.8         75.0         79.2         56.6         44.3         1.376           Mill         93.8         60.4         83.4         75.2         46.3         1.376           Miterian         95.1         75.4         85.0         67.4         50.6         3484           Miterian							
Ever had sex         92.9         83.9         84.4         63.8         53.6         535           Married         91.4         72.5         80.4         66.1         46.2         2.532           Divorced/separate/dwidowed         (93.0)         (62.5)         (71.6)         (51.7)         (28.9)         57           Residence           10.3         69.3         66.5         711           Rural         91.0         73.3         80.0         64.1         45.5         3.280           Ecological zone           45.3         70.4         51.7         1.616           Huil         93.8         78.6         85.3         70.4         51.7         1.616           Central         90.5         73.0         79.5         60.2         44.5         2.138           Development region         E         E         85.6         71.2         80.2         63.9         44.5         1.676           Kid-western         95.1         75.4         85.0         67.4         50.6         381           Subregion         E         Eastern Mountain         87.7         72.0         77.7         74.9         42.2		02.2	80.3	85.3	65 /	50 5	1 /02
Never had sex         92.0         79.1         85.6         66.0         49.5         1.052           Married         91.4         72.5         80.4         65.1         46.2         2.532           Divorced/separated/widowed         (93.0)         (62.5)         (71.6)         (51.7)         (28.9)         57           Residence           30.0         64.1         45.5         3.200           Ecological zone           80.0         64.1         45.5         3.200           Mountain         88.7         70.4         81.5         72.3         45.0         238           Hill         93.8         78.6         85.3         70.4         51.7         1.616           Terai         90.5         73.0         79.5         60.2         44.5         2.138           Development region         E         E         Eastern         E         1.376         Westem         55.1         75.4         85.0         67.4         50.6         381           Subregion         E         E         E         E         E         1.66         2.27         73.6         78.6         73.7         78.6         63.0							
Married Divorced/separated/widowed         91.4 (93.0)         72.5 (62.5)         80.4 (71.6)         65.1 (51.7)         46.2 (28.9)         25.32 (28.9)           Residence Urban         91.9         83.3         91.3         69.3         56.5         71.1           Rural         91.0         73.3         80.0         64.1         45.5         3.280           Ecological zone            57.5         60.2         44.5         2.183           Huil         93.8         78.6         85.3         70.4         51.7         1.616           Terai         90.5         73.0         79.5         60.2         44.5         2.138           Developmer region         E         E         48.8         68.4         50.0         98.6           Central         86.6         71.2         80.2         63.9         44.5         1.376           Western         95.9         80.4         83.4         75.2         57.3         464           Far-western         95.1         75.4         85.0         67.4         50.6         381           Subregion         S         77         73.6         78.8         73.7         68.5         69.3							
Divorced/separated/widowed         (93.0)         (62.5)         (71.6)         (61.7)         (28.9)         57           Residence							
Residence         No.         No.         No.         No.         No.           Urban         94.9         83.3         91.3         69.3         56.5         711           Rural         91.0         73.3         80.0         64.1         45.5         3.280           Ecological zone           Mountain         88.7         70.4         81.5         72.3         45.0         238           Hill         93.8         78.6         65.3         70.4         51.7         1.616           Development region         E         E         24.5         2.138         76.0         84.8         68.4         50.0         985           Ocentral         88.6         71.2         80.2         63.9         44.5         1.376           Western         95.1         75.4         85.0         67.4         50.6         381           Subregion         E         Eastern mountain         85.4         71.8         89.9         78.3         47.1         66           Vestorm mountain         87.7         72.0         77.7         64.9         42.2         106           Eastern mountain         87.4         71.8         89.9							
Urban         94.9         83.3         91.3         69.3         66.5         711           Rural         91.0         73.3         80.0         64.1         45.5         3,280           Ecological zone	·				. ,		
Rural         91.0         73.3         80.0         64.1         45.5         3,280           Ecolgical zone		94.9	83.3	91.3	69.3	56.5	711
Mountain         88.7         70.4         81.5         72.3         45.0         238           Hill         93.8         76.6         85.3         70.4         51.7         1.616           Terai         90.5         73.0         79.5         60.2         44.5         2,138           Development region         E         E         50.0         985         60.2         63.9         44.5         1,376           Western         95.2         78.8         79.2         55.6         42.3         785           Mid-western         95.1         75.4         85.0         67.4         50.6         381           Subregion         E         Eastern mountain         85.4         71.8         89.9         78.3         47.1         66           Western mountain         87.7         72.0         77.7         64.9         42.2         106           Eastern hill         94.7         78.6         78.8         73.7         58.5         603           Western multain         92.7         73.6         78.8         73.7         58.5         603           Western hill         92.0         78.4         81.4         83.2         59.2         179							
Mountain         88.7         70.4         81.5         72.3         45.0         238           Hill         93.8         76.6         85.3         70.4         51.7         1.616           Terai         90.5         73.0         79.5         60.2         44.5         2,138           Development region         E         E         50.0         985         60.2         63.9         44.5         1,376           Western         95.2         78.8         79.2         55.6         42.3         785           Mid-western         95.1         75.4         85.0         67.4         50.6         381           Subregion         E         Eastern mountain         85.4         71.8         89.9         78.3         47.1         66           Western mountain         87.7         72.0         77.7         64.9         42.2         106           Eastern hill         94.7         78.6         78.8         73.7         58.5         603           Western multain         92.7         73.6         78.8         73.7         58.5         603           Western hill         92.0         78.4         81.4         83.2         59.2         179	Ecological zone						
Terai90.573.079.560.244.52,138Development region	Mountain	88.7	70.4	81.5	72.3	45.0	238
Development region         Participant         Participant <td>Hill</td> <td>93.8</td> <td>78.6</td> <td>85.3</td> <td>70.4</td> <td>51.7</td> <td>1,616</td>	Hill	93.8	78.6	85.3	70.4	51.7	1,616
Eastern92.875.084.868.450.0985Central88.671.280.263.944.51,376Western95.278.879.255.642.3785Mid-western89.980.483.475.257.3464Far-western95.175.485.067.450.6381SubregionEastern mountain85.471.889.978.347.166Central mountain87.772.077.764.942.2106Eastern hill92.773.678.873.748.8287Central mountain93.681.883.062.345.8428Mid-western hill92.078.481.483.259.2179Far-western hill94.864.978.155.234.4119Far-western hill94.864.978.155.234.4119Far-western hill94.864.978.155.234.4119Far-western terai89.883.386.870.659.4227Far-western terai95.982.990.275.861.8214Primary87.961.774.460.436.3776Some secondary93.177.083.468.049.21,431SUC and above96.991.993.669.361.81,303Weste	Terai	90.5	73.0	79.5	60.2	44.5	2,138
Central88.671.280.263.944.51,376Western95.278.879.255.642.3785Mid-western89.980.483.475.257.3464Far-western95.175.485.067.450.6381Subergion							
Western         95.2         78.8         79.2         55.6         42.3         785           Mid-western         89.9         80.4         83.4         75.2         57.3         464           Far-western         95.1         75.4         85.0         67.4         50.6         381           Subregion         Eastern mountain         93.7         66.4         79.2         78.4         47.5         65           Central mountain         85.4         71.8         89.9         78.3         47.1         66           Western mountain         87.7         72.0         77.7         64.9         42.2         106           Eastern hill         92.7         73.6         78.8         73.7         48.8         287           Central hill         94.7         81.6         92.5         73.7         58.5         603           Western hill         94.8         64.9         78.1         55.2         34.4         119           Eastern terai         92.8         76.5         88.0         65.0         50.8         633           Central hill         94.8         64.9         74.7         47.5         38.0         357           Mid-western							
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Far-western95.175.485.067.450.6381Subregion							
Subregion         Eastern mountain         93.7         66.4         79.2         78.4         47.5         65           Central mountain         85.4         71.8         89.9         76.3         47.1         66           Western mountain         87.7         72.0         77.7         64.9         42.2         106           Eastern hill         92.7         73.6         78.8         73.7         48.8         287           Central hill         94.7         81.6         92.5         73.7         58.5         603           Western hill         93.6         81.8         83.0         62.3         45.8         428           Mid-western hill         92.0         78.4         81.4         83.2         59.2         179           Far-western hill         94.8         64.9         78.1         55.2         34.4         119           Eastern terai         92.8         76.5         88.0         65.0         50.8         633           Central terai         93.7         62.3         68.9         54.2         32.3         707           Western terai         97.1         75.1         74.7         47.5         38.0         357							
Eastern mountain93.766.479.278.447.565Central mountain85.471.889.978.347.166Western mountain87.772.077.764.942.2106Eastern hill92.773.678.873.758.5603Central hill94.781.692.573.758.5603Western hill93.681.883.062.345.8428Mid-western hill92.078.481.483.259.2179Far-western hill94.864.978.155.234.4119Eastern terai92.876.588.065.050.8633Central terai83.762.368.954.232.3707Western terai97.175.174.747.538.0357Mid-western terai95.982.990.275.861.8214EducationVestern teraiNo education79.945.658.351.921.6481SLC and above96.991.993.669.361.81,303Weath quintieLowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8 <td></td> <td>95.1</td> <td>75.4</td> <td>85.0</td> <td>67.4</td> <td>50.6</td> <td>381</td>		95.1	75.4	85.0	67.4	50.6	381
Central mountain85.471.889.978.347.166Western mountain87.772.077.764.942.2106Eastern hill92.773.678.873.748.8287Central hill94.781.692.573.758.5603Western hill93.681.883.062.345.8428Mid-western hill92.078.481.483.259.2179Far-western hill94.864.978.155.234.4119Eastern terai92.876.588.065.050.8633Central terai83.762.368.954.232.3707Western terai97.175.174.747.538.0357Mid-western terai95.982.990.275.861.8214EducationFar-western terai95.982.990.275.861.8214No education79.945.658.351.921.6481Primary87.961.774.460.436.3776Suc and above96.991.993.669.361.81,303Weath quintile48.761.471.062.633.9554Lowest88.761.475.065.244.3809Primary83.380.285.363.750.8913Hiddle86.1		02.7	66 /	70.2	79.4	17 5	65
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Central hill94.781.692.573.758.5603Western hill93.681.883.062.345.8428Mid-western hill92.078.481.483.259.2179Far-western hill94.864.978.155.234.4119Eastern terai92.876.588.065.050.8633Central terai97.175.174.747.538.0357Western terai97.175.174.747.538.0357Mid-western terai89.883.386.870.659.4227Far-western terai95.982.990.275.861.8214EducationNo education79.945.658.351.921.6481Primary87.961.774.460.436.3776Some secondary93.177.083.468.049.21,431SLC and above96.991.993.669.361.81,303Wealth quintile86.168.775.062.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061							
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Mid-western terai89.883.386.870.659.4227Far-western terai95.982.990.275.861.8214EducationNo education79.945.658.351.921.6481Primary87.961.774.460.436.3776Some secondary93.177.083.468.049.21,431SLC and above96.991.993.669.361.81,303Wealth quintileEEEEELowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061	Central terai	83.7	62.3	68.9	54.2	32.3	707
Far-western terai95.982.990.275.861.8214Education79.945.658.351.921.6481Primary87.961.774.460.436.3776Some secondary93.177.083.468.049.21,431SLC and above96.991.993.669.361.823.9Wealth quintileUse on determine the second							
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No education79.945.658.351.921.6481Primary87.961.774.460.436.3776Some secondary93.177.083.468.049.21,431SLC and above96.991.993.669.361.81,303Wealth quintileLowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061	Far-western terai	95.9	82.9	90.2	75.8	61.8	214
Primary87.961.774.460.436.3776Some secondary93.177.083.468.049.21,431SLC and above96.991.993.669.361.81,303Wealth quintileLowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061							
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SLC and above96.991.993.669.361.81,303Wealth quintileLowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061							
Wealth quintileLowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061							
Lowest88.761.471.062.633.9554Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061		50.3	51.3	55.0	03.0	01.0	1,000
Second90.168.578.563.241.0654Middle86.168.775.065.244.3809Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061		99.7	61 /	71.0	60.6	32.0	EEA
Middle         86.1         68.7         75.0         65.2         44.3         809           Fourth         93.3         80.2         85.3         63.7         50.8         913           Highest         97.1         86.8         92.2         68.5         58.1         1,061							
Fourth93.380.285.363.750.8913Highest97.186.892.268.558.11,061							
Highest         97.1         86.8         92.2         68.5         58.1         1,061							
	Total 15-49	91.7	75.1	82.0	65.0	47.5	3,991

SLC = School Leaving Certificate

# 12.5 ATTITUDES TOWARD NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it is of little use if people feel powerless to negotiate safer sex with their partners. To gauge attitudes toward safer sex, respondents in the 2011 NDHS were asked whether they think a wife is justified in refusing to have sex with her husband and in asking that he use a condom if she knows he has an infection that can be transmitted through sexual contact.

Table 12.6 shows that 90 percent of women and 74 percent of men in Nepal believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women. Ninety-three percent of women and 96 percent of men believe that if a husband has an STI, his wife is justified in asking him to use a condom.

#### Table 12.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, Nepal 2011

Background characteristic Age	Wo Refusing to have sexual intercourse with her husband if she knows he has sex with other women	man is justified in: Asking that they use a condom if she knows that her husband has an		Refusing to have sexual intercourse	man is justified in: Asking that they	
characteristic	sexual intercourse with her husband if she knows he has sex with other	use a condom if she knows that her		sexual intercourse	Asking that they	
Age		STI	Number of women	with her husband if she knows he has sex with other women	use a condom if she knows that her husband has an STI	Number of men
15-24 15-19 20-24 25-29 30-39 40-49	89.6 90.1 89.0 90.8 91.0 89.9	93.8 93.1 94.7 94.3 93.8 88.5	5,050 2,753 2,297 2,101 3,291 2,232	71.9 70.5 73.8 74.8 74.6 75.3	95.8 94.7 97.5 96.9 96.2 93.7	1,663 978 685 581 1,041 836
Marital status						
Never married Ever had sex Never had sex Married Divorced/separated/widowed	89.4 * 89.6 90.4 90.7	92.6 * 93.1 91.2	2,708 18 2,691 9,608 358	73.3 69.6 74.5 74.0 (68.9)	95.9 95.5 96.0 95.6 (95.0)	1,433 352 1,081 2,626 62
Residence					( )	
Urban Rural	90.2 90.2	95.2 92.6	1,819 10,855	77.0 73.0	96.9 95.4	717 3,404
Ecological zone Mountain	88.0	90.1	805	83.6	98.4	245
Hill Terai	89.3 91.2	92.9 93.3	5,090 6,779	80.3 67.6	96.1 95.1	1,658 2,218
	91.2	93.5	0,779	07.0	35.1	2,210
Development region Eastern Central Western Mid-western Far-western	91.8 91.1 90.5 87.2 86.3	94.9 91.8 92.5 91.9 94.2	3,057 4,236 2,660 1,478 1,242	74.1 70.5 76.2 79.1 72.2	97.5 93.7 96.6 94.7 97.8	996 1,448 798 493 385
Subregion						
Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai	87.2 91.7 85.6 90.0 88.6 90.3 87.3 89.4 93.3 92.7 90.6	94.0 91.0 86.6 96.2 95.0 89.3 91.3 93.5 94.3 89.9 96.4	229 258 319 956 1,563 1,513 649 409 1,873 2,415 1,147	87.1 85.6 80.3 79.6 80.9 77.4 84.8 82.6 70.3 60.7 74.6	99.0 98.8 97.7 97.6 96.1 95.4 93.4 99.0 97.3 91.2 98.1	66 69 110 293 616 440 189 120 638 763 358
Mid-western terai Far-western terai	87.0 85.1	94.1 96.0	668 676	75.8 63.1	95.4 96.6	242 217
Education No education Primary Some secondary SLC and above	88.8 89.7 91.4 92.3	87.0 93.3 97.7 99.1	5,045 2,209 3,088 2,331	60.9 72.7 75.1 78.3	85.8 94.7 97.8 98.2	567 814 1,437 1,303
Wealth quintile Lowest Second Middle Fourth Highest	86.5 89.4 90.7 92.0 91.6	85.4 89.6 93.4 96.6 97.6	2,120 2,393 2,600 2,722 2,839	76.5 70.1 69.1 73.8 77.7	91.8 93.9 95.5 97.3 97.8	610 695 830 920 1,066
Total 15-49	90.2	92.9	12,674	73.7	95.7	4,121

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

Differences by background characteristics are small for women. However, older men, married men, men living in urban areas, men living in the mountain zone, and men living in the Mid-western region and Eastern mountain subregion are more likely than their counterparts to say that a woman is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women. Support for a wife's right to negotiate safer sex with her husband increases with education and, in general, with wealth.

#### **MULTIPLE SEXUAL PARTNERS** 12.6

Limiting the number of sexual partners and practicing protected sex are crucial in the fight against the spread of sexually transmitted infections, including HIV. Respondents to the 2011 NDHS were asked detailed questions about their sexual behavior, including the number of partners they had in the 12 months preceding the survey and condom use during their most recent sexual encounter. Results for men age 15-49 are shown in Table 12.7. Findings for women are not shown separately since a negligible percentage of women reported having multiple sexual partners.

#### Table 12.7 Multiple sexual partners

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Nepal 2011

	All mer	ı	Among men who ha in the past 12		Among men who ev intercours	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	3.8	1,663	45.1	63	2.6	666
15-19	1.5	978	*	14	2.1	202
20-24	7.0	685	(43.2)	48	2.8	463
25-29	5.8	581	(12.7)	33	2.7	528
30-39	3.3	1,041	(21.4)	35	2.6	1,016
40-49	2.9	836	*	25	2.3	827
Marital status			()			
Never married	3.0	1,433	(60.2)	43	3.2	352
Married	4.0	2,626	10.4	106	2.4	2,626
Divorced/separated/widowed	(10.3)	62	*	6	(5.5)	59
Type of union	(57.4)		*	05	(4.0)	
In polygynous union	(57.4)	44		25	(4.0)	44
In non-polygynous union	3.1 3.3	2,583	13.6	81 50	2.3 3.5	2,582 411
Not currently in union	3.3	1,495	(60.7)	50	3.5	411
Times slept away from home in past 12 months						
None	3.3	932	(22.0)	31	2.1	654
1-2	2.9	932 864	(22.0) (29.1)	25	2.1	605
3-4	3.6	830	(31.5)	25 30	2.4	606
5-4 5+	4.7	1,495	25.4	70	3.0	1,171
ime away in past 12 months						
Away for more than 1 month	5.5	896	(30.2)	49	2.6	699
Away only for less than 1 month	3.3	2.293	25.9	76	2.6	1,684
Not away	3.3	932	(22.0)	31	2.1	654
esidence						
Urban	4.3	717	33.6	31	2.1	496
Rural	3.7	3,404	24.7	125	2.6	2,540
cological zone						
Mountain	2.7	245	*	7	2.4	194
Hill	3.4	1,658	34.5	56	2.3	1,224
Terai	4.2	2,218	21.8	93	2.7	1,618
evelopment region						
Eastern	3.0	996	(35.8)	30	2.9	707
Central	4.6	1,448	(23.0)	66	2.0	1,094
Western	3.4	798	(25.7)	27 20	3.1	569
Mid-western Far-western	4.0 3.3	493 385	(22.0)	20 13	2.7 2.3	390 278
ubregion				-	-	-
Eastern mountain	2.7	66	*	2	2.2	47
Central mountain	1.2	69	*	1	1.8	54
Western mountain	3.7	110	*	4	2.9	93
Eastern hill	2.6	293	*	8	2.1	216
Central hill	4.5	616	*	27	1.9	456
Western hill	2.4	440	*	10	3.1	315
Mid-western hill	4.0	189	*	8	2.2	153
Far-western hill	2.3	120	*	3	2.6	84
Eastern terai	3.2	638	*	20	3.3	444
Central terai	5.0	763	*	38	2.1	585
Western terai	4.6	358	*	17	3.1	253
Mid-western terai	3.7	242	*	9	2.9	182
Environmentaria terrat						
Far-western terai	4.1	217	*	9	2.1	154 Continued

#### Table 12.7—Continued

	All mer	n	Among men who ha in the past 12		Among men who ev intercours	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Education						
No education	4.2	567	*	24	2.0	537
Primary	2.5	814	*	20	2.3	701
Some secondary	3.9	1.437	38.0	57	3.1	922
SLC and above	4.2	1,303	32.7	54	2.4	877
Wealth guintile						
Lowest	0.6	610	*	4	2.1	481
Second	3.7	695	(21.0)	26	2.2	519
Middle	5.1	830	(8.2)	42	2.5	640
Fourth	3.5	920	(22.5)	32	2.4	650
Highest	4.9	1,066	(47.3)	52	3.1	747
Total 15-49	3.8	4,121	26.5	155	2.5	3,037

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate <sup>1</sup> Means are calculated excluding respondents who gave non-numeric responses.

Table 12.7 presents several indicators based on information collected from men about the number of sexual partners they had during the 12-month period before the survey and over their lifetime. The first indicator is the prevalence of multiple partners. The second indicator relates to condom use during the last sexual encounter among men with two or more partners in the past 12 months. The third indicator, the mean number of sexual partners that a man has had during his lifetime, serves as a measure of lifetime exposure to elements of higher-risk sex.

Four percent of men reported having had two or more sexual partners during the 12 months prior to the survey, and 27 percent of these men reported using a condom during their last sexual intercourse. Men in urban areas who had sexual intercourse with more than one partner in the 12 months preceding the survey were more likely than men in rural areas to report using a condom during their last sexual intercourse (34 percent and 25 percent, respectively). Men had an average of 2.5 sexual partners over their lifetime, an increase from 2 sexual partners in 2006.

#### 12.7 **PAYMENT FOR SEX**

Paid sex is considered a special category of higher-risk sex. Male respondents in the 2011 NDHS were asked whether they had ever paid for sexual intercourse and whether they had done so in the past 12 months. About 5 percent of men had ever paid for sexual intercourse, with those living in urban areas, those in the terai and Central region, those with an SLC and higher, and those in the highest wealth quintile more often paying for sex than their counterparts in the other categories (Table 12.8). Less than 2 percent reported that they had engaged in paid sex in the past 12 months. Thirty-eight percent of men who had engaged in paid sex in the past 12 months reported that they had used a condom the last time they had paid sex (data not shown separately). Men age 20-24; never-married men; men living in urban areas, the terai, and the Central region; highly educated men; and men from the fourth and fifth wealth quintiles were more likely than their counterparts to have engaged in paid sex in the past 12 months.

Table 12.8 Payment for sexual intercourse and condom use at last paid sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, by background characteristics, Nepal 2011

Background characteristic	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men
Age 15-24 15-19 20-24 25-29 30-39 40-49	3.3 1.0 6.7 6.7 6.6 3.8	1.7 0.4 3.6 2.4 1.4 0.4	1,663 978 685 581 1,041 836
Marital status Never married Married Divorced/separated/widowed	3.4 5.3 (11.5)	2.2 0.9 (9.9)	1,433 2,626 62
<b>Residence</b> Urban Rural	5.3 4.6	2.0 1.4	717 3,404
<b>Ecological zone</b> Mountain Hill Terai	2.7 4.2 5.3	1.1 1.3 1.7	245 1,658 2,218
Development region Eastern Central Western Mid-western Far-western	4.7 6.0 4.5 2.5 3.2	1.6 2.1 1.0 0.8 0.5	996 1,448 798 493 385
Education No education Primary Some secondary SLC and above	4.1 3.9 4.3 5.9	1.0 1.5 1.5 1.6	567 814 1,437 1,303
Wealth quintile Lowest Second Middle Fourth Highest Total 15-49	3.1 2.4 5.3 4.5 6.9 4.7	0.9 1.0 1.3 2.0 1.8 1.5	610 695 830 920 1,066 4,121

Note: Figures in parentheses are based on 25-49 unweighted cases.  ${\rm SLC}$  = School Leaving Certificate

# 12.8 TESTING FOR HIV

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce their risk and increase safe sex practices so that they can remain disease free. For those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future. Testing of pregnant women is especially important to prevent mother-to-child transmission of HIV. Where migration is common, knowing one's HIV status is particularly critical in curbing the spread of the infection and empowering women to seek preventive and curative measures to protect themselves and their children.

Knowledge of HIV status benefits both the individual and the public. As a result of advances in medical science, having HIV is not necessarily fatal, and with appropriate treatment people with HIV can live much longer and lead a relatively normal life. It is important to ensure that all people diagnosed with HIV receive such treatment, and the government of Nepal is doing all it can to establish this as a priority. If diagnosis of HIV infection is maximized, patterns of infection can be better monitored and interventions better targeted. The government of Nepal is prioritizing the provision of voluntary counseling and testing services at all levels of the health system.

Women and men in Nepal age 15-49 were asked whether they know of a place where people can go to get tested for HIV. Tables 12.9.1 and 12.9.2 show that men are more likely than women to know of a place where they can go to get an HIV test (57 percent and 38 percent, respectively). Knowledge of HIV testing facilities differs by respondents' background characteristics. Men and women age 20-24 are most likely to know of a place to get tested for HIV, and those age 40-49 are least likely to be aware of an HIV testing place. Nevermarried respondents, particularly never-married men who are sexually active, are more aware of a place for HIV testing than their counterparts. Also, residents of urban areas and the hill zone, women in the Far-western region, and men in the Eastern region are more aware of where to go to get an HIV test than their counterparts in other areas. Knowledge of where to go for an HIV test varies positively with education and wealth quintile for both women and men.

### Table 12.9.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Nepal 2011

Percentage who know where to get an HIV test	Ever tested and received results	Ever tested, did not receive results	Never tested <sup>1</sup>	Total	Percentage ever tested		Number of women
41.5	4.6	0.0	95.4	100.0	4.6	3.0	5,050
38.4	2.4	0.0	97.6	100.0	2.4	1.9	2,753
45.2	7.2	0.1	92.7	100.0	7.3	4.4	2,297
41.7	8.3	0.0	91.7	100.0	8.3	4.3	2,101
37.5	5.8	0.1	94.1	100.0	5.9	3.0	3,291
27.9	2.7	0.0	97.2	100.0	2.8	1.1	2,232
45.3	2.3	0.0	97.7	100.0	2.3	1.5	2,708
*	*	*	*	100.0	*	*	18
45.4	2.2	0.0	97.8	100.0	2.2	1.5	2,691
36.2	5.9	0.1	94.0	100.0	6.0	3.2	9,608
34.6	8.1	0.3	91.6	100.0	8.4	4.4	358
53.1	7.7	0.2	92.2	100.0	7.8	3.9	1,819
35.6	4.8	0.0	95.2	100.0	4.8	2.7	10,855
36.6	4.1	0.0	95.9	100.0	4.1	2.4	805
41.1	6.2	0.0	93.8	100.0	6.2	3.4	5,090
36.0	4.6	0.1	95.3	100.0	4.7	2.5	6,779
37.1	3.9	0.0	96.1	100.0	3.9	2.3	3,057
31.4	2.9	0.0	97.1	100.0	2.9	1.9	4,236
38.5	5.2	0.1	94.7	100.0	5.3	2.7	2,660
43.5	7.4	0.0	92.6	100.0	7.4	4.4	1,478
56.2	13.6	0.1	86.3	100.0	13.7	6.4	1,242
20.0	3.2	0.0	96.7	100.0	3.3	1.7	5,045
31.6	4.4	0.1	95.5	100.0	4.5	2.3	2,209
48.7	5.1	0.0	94.9	100.0	5.1	2.7	3,088
69.2	10.4	0.0	89.5	100.0	10.5	6.3	2,331
22.8 27.7 30.4 45.1 58.6	4.8 3.5 3.4 6.2 7.6	0.0 0.0 0.1 0.1 0.1	95.2 96.5 96.5 93.7 92.4	100.0 100.0 100.0 100.0 100.0	4.8 3.5 3.5 6.3 7.6	2.8 1.9 1.8 3.5 4.2	2,120 2,393 2,600 2,722 2,839 12.674
	who know where to get an HIV test 41.5 38.4 45.2 41.7 37.5 27.9 45.3 * 45.4 36.2 34.6 53.1 35.6 36.6 41.1 36.0 37.1 31.4 38.5 43.5 56.2 20.0 31.6 48.7 69.2 22.8 27.7 30.4 45.1	Percentage who know where to get an HIV test         Ever tested and received results           41.5         4.6           38.4         2.4           45.2         7.2           41.7         8.3           37.5         5.8           27.9         2.7           45.3         2.3           *         *           45.4         2.2           36.2         5.9           34.6         8.1           53.1         7.7           35.6         4.8           36.6         4.1           41.1         6.2           36.0         4.6           37.1         3.9           31.4         2.9           38.5         5.2           43.5         7.4           56.2         13.6           20.0         3.2           31.6         4.4           48.7         5.1           69.2         10.4           22.8         4.8           27.7         3.5           30.4         3.4           45.1         6.2           58.6         7.6	Percentage who know an HIV test         Ever tested and received results         Ever tested did not receive results           41.5         4.6         0.0           38.4         2.4         0.0           45.2         7.2         0.1           41.7         8.3         0.0           37.5         5.8         0.1           27.9         2.7         0.0           45.3         2.3         0.0           *         *         *           45.4         2.2         0.0           36.2         5.9         0.1           34.6         8.1         0.3           53.1         7.7         0.2           36.6         4.1         0.0           41.1         6.2         0.0           36.6         4.1         0.0           31.4         2.9         0.0           38.5         5.2         0.1           31.4         2.9         0.0           38.5         5.2         0.1           31.6         4.4         0.1           43.5         7.4         0.0           36.2         10.4         0.0           69.2         10.4	Percentage where to get an HIV testEver tested and receivedEver tested, did not receive resultsNever tested1 $41.5$ $4.6$ $0.0$ $95.4$ $38.4$ $2.4$ $0.0$ $97.6$ $45.2$ $7.2$ $0.1$ $92.7$ $41.7$ $8.3$ $0.0$ $91.7$ $37.5$ $5.8$ $0.1$ $94.1$ $27.9$ $2.7$ $0.0$ $97.2$ $45.3$ $2.3$ $0.0$ $97.7$ $*$ $*$ $*$ $*$ $45.4$ $2.2$ $0.0$ $97.8$ $36.2$ $5.9$ $0.1$ $94.0$ $34.6$ $8.1$ $0.3$ $91.6$ $53.1$ $7.7$ $0.2$ $92.2$ $35.6$ $4.8$ $0.0$ $95.2$ $36.6$ $4.1$ $0.0$ $95.9$ $41.1$ $6.2$ $0.0$ $97.1$ $38.5$ $5.2$ $0.1$ $94.7$ $31.4$ $2.9$ $0.0$ $97.1$ $38.5$ $5.2$ $0.1$ $94.7$ $43.5$ $7.4$ $0.0$ $92.6$ $56.2$ $13.6$ $0.1$ $86.3$ $20.0$ $3.2$ $0.0$ $96.7$ $31.6$ $4.4$ $0.1$ $95.5$ $48.7$ $5.1$ $0.0$ $94.9$ $69.2$ $10.4$ $0.0$ $89.5$ $22.8$ $4.8$ $0.0$ $95.2$ $27.7$ $3.5$ $0.0$ $96.5$ $30.4$ $3.4$ $0.1$ $96.5$ $30.4$ $3.4$ $0.1$ $93.7$ <	and by whether they received the results of the last test           Percentage who know where to get an HIV test         Ever tested, did not receive results         Never tested <sup>1</sup> Total           41.5         4.6         0.0         95.4         100.0           38.4         2.4         0.0         97.6         100.0           45.2         7.2         0.1         92.7         100.0           41.7         8.3         0.0         91.7         100.0           37.5         5.8         0.1         94.1         100.0           27.9         2.7         0.0         97.2         100.0           45.3         2.3         0.0         97.7         100.0 $\star$ $\star$ $\star$ $\star$ $\star$ 100.0           36.2         5.9         0.1         94.0         100.0           33.6         4.1         0.0         95.9         100.0           34.6         8.1         0.3         91.6         100.0           35.6         4.8         0.0         95.9         100.0           34.6         8.1         0.0         95.3         100.0	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Percentage who know where to get an HIV test         Ever tested test         Ever tested, did not receive results         Never tested         Total         who have been tested for ever tested           41.5         4.6         0.0         95.4         100.0         4.6         3.0           38.4         2.4         0.0         97.6         100.0         2.4         1.9           45.2         7.2         0.1         92.7         100.0         2.4         3.3         4.3           37.5         5.8         0.1         94.1         100.0         2.8         1.1           45.3         2.3         0.0         97.7         100.0         2.3         1.5           *         *         *         100.0         4.6         3.0           27.9         2.7         0.0         97.2         100.0         2.3         1.5           *         *         *         *         100.0         4.8         2.7           36.6         4.1         0.3         91.6         100.0         8.4         4.4           53.1         7.7         0.2         92.2         100.0         7.8         3.9           35.6         4.8         0.0         9

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate <sup>1</sup> Includes those who have never heard of AIDS

The vast majority of women (95 percent) and men (85 percent) have never been tested for HIV. Five percent of women and 14 percent of men have been tested and received their results; almost none of those tested reported not receiving their results. Women age 25-29; divorced, separated, and widowed women; urban women; women living in the hill zone and Far-western region; highly educated women; and women from the wealthiest households are most likely to have been tested and to have received the results. A similar pattern is seen for men, although differences by zone, region, and subregion are not as marked.

Women and men were also asked whether they had been tested for HIV in the past 12 months and received the results from their last HIV test. Three percent of women and 8 percent of men had been tested in the past 12 months and had received the test results.

### Table 12.9.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Nepal 2011

			bution of men by r they received th last test				Percentage who have been tested for HIV in the past	
Background characteristic	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested, did not receive results	Never tested <sup>1</sup>	Total	Percentage ever tested	12 months and received the results of the last test	Number of men
Age								
15-24	59.0	10.2	0.5	89.3	100.0	10.7	6.5	1,663
15-19	51.1	4.4	0.4	95.1	100.0	4.9	3.1	978
20-24	70.3	18.4	0.6	81.0	100.0	19.0	11.3	685
25-29	63.4	19.8	1.2	79.0	100.0	21.0	9.5	581
30-39	58.9	19.1	0.6	80.2	100.0	19.8	10.0	1,041
40-49	48.2	12.1	0.1	87.9	100.0	12.1	4.8	836
Marital status								
Never married	60.3	8.3	0.5	91.3	100.0	8.7	5.1	1,433
Ever had sex	72.9	19.9	1.2	78.9	100.0	21.1	12.8	352
Never had sex	56.3	4.5	0.2	95.3	100.0	4.7	2.5	1,081
Married	56.5	17.4	0.6	82.0	100.0	18.0	8.8	2,626
Divorced/separated/widowed	(26.7)	(15.8)	(0.0)	(84.2)	100.0	(15.8)	(6.9)	62
Residence								
Urban	71.8	16.5	1.1	82.4	100.0	17.6	9.7	717
Rural	54.3	13.7	0.4	85.9	100.0	14.1	7.0	3,404
Ecological zone								
Mountain	57.0	11.3	0.7	88.0	100.0	12.0	5.3	245
Hill	61.2	14.6	0.3	85.1	100.0	14.9	8.1	1,658
Terai	54.6	14.2	0.7	85.1	100.0	14.9	7.2	2,218
Development region								
Eastern	66.3	14.6	0.7	84.7	100.0	15.3	7.7	996
Central	51.6	12.8	0.9	86.3	100.0	13.7	7.3	1,448
Western	58.2	17.3	0.2	82.5	100.0	17.5	8.4	798
Mid-western	52.2	13.0	0.0	87.0	100.0	13.0	6.6	493
Far-western	61.4	13.6	0.3	86.0	100.0	14.0	6.7	385
Education	0111	10.0	0.0	00.0	100.0	11.0	0.1	000
No education	19.3	4.1	0.1	95.8	100.0	4.2	1.9	567
Primary	36.5	8.9	0.4	90.7	100.0	9.3	3.6	814
Some secondary	60.1	16.1	0.6	83.3	100.0	16.7	9.5	1,437
SLC and above	84.0	19.7	0.8	79.5	100.0	20.5	10.1	1,303
Wealth guintile								.,
Lowest	35.9	7.1	0.0	92.9	100.0	7.1	3.9	610
	40.0	8.5	0.0	92.9 91.2	100.0	8.8	3.9	695
Second Middle	40.0 51.8		0.3	91.2 86.2			3.5 7.9	695 830
		13.4			100.0	13.8		
Fourth	65.4	16.2	0.9	82.9	100.0	17.1	9.0	920
Highest	78.5	20.9	0.8	78.3	100.0	21.7	10.4	1,066
Total 15-49	57.4	14.2	0.6	85.3	100.0	14.7	7.5	4,121

Note: Figures in parentheses are based on 25-49 unweighted cases.

SLC = School Leaving Certificate <sup>1</sup> Includes those who have never heard of AIDS

## 12.9 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Respondents who had ever had sexual intercourse were asked whether, in the past 12 months, they had experienced an infection acquired through sexual contact or had experienced either of two symptoms associated with STIs: a bad-smelling, abnormal discharge from the vagina or penis or a genital sore or ulcer. Table 12.10 shows the self-reported prevalence of STIs and STI symptoms among both women and men. A negligible proportion of women and men reported having had an STI in the 12 months prior to the survey (less than 1 percent). It is likely that these figures, which are quite low, underestimate the actual prevalence of STIs among the sexually active population in Nepal, as many STI symptoms are not easily recognized or do not have any visible symptoms.

Table 12.10 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Nepal 2011

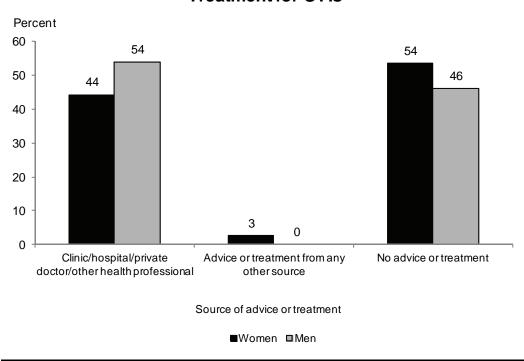
<u>-</u>			Women			Men						
Background characteristic	STI	Bad- smelling/ abnormal genital discharge	Genital sore/ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad- smelling/ abnormal genital discharge	Genital sore/ulcer	STI/genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse		
Age												
15-24	0.4	10.3	2.1	11.4	2,577	0.4	3.4	5.4	7.1	666		
15-19	0.6	8.7	1.5	9.6	799	0.0	6.2	12.3	13.6	203		
20-24	0.4	11.0	2.3	12.2	1,778	0.5	2.1	2.4	4.2	463		
25-29	0.6	13.3	2.3	14.1	1,955	0.4	0.8	1.3	1.6	528		
30-39	0.6	12.5	2.8	13.2	3,233	0.4	0.9	1.8	2.5	1,016		
40-49	0.4	10.6	2.6	11.7	2,203	0.0	0.9	2.2	2.8	830		
larital status	*	*	*									
Never married				*	18	1.3	2.9	5.9	7.8	352		
Married	0.5	11.6	2.5	12.6	9,595	0.1	1.0	2.1	2.7	2,626		
Divorced/separated/widowed	0.3	12.2	1.4	12.2	355	(2.9)	(8.9)	(4.9)	(9.7)	62		
lesidence				40.0	4 004					407		
Urban	0.6	11.4	3.1	12.9	1,321	0.0	1.1	2.3	3.2	497		
Rural	0.5	11.7	2.4	12.6	8,647	0.3	1.5	2.7	3.4	2,543		
Ecological zone	0.0	40.4	0.7		055	0.4	0.0	4.5	47	404		
Mountain	0.3	13.4	3.7	14.4	655	0.1	0.3	1.5	1.7	194		
Hill	0.3	12.4	2.9	13.6	3,947	0.3	1.6	3.1 2.4	4.0	1,224		
Terai	0.6	10.9	2.0	11.7	5,366	0.3	1.5	2.4	3.2	1,621		
evelopment region	0.9	12.5	3.3	13.9	2,368	0.0	0.6	2.4	3.0	707		
Eastern Central	0.9	12.5	2.2	13.9	3,315	0.6	2.4	2.4 3.8	3.0 5.1	1,097		
Western	0.0	12.4	1.8	13.1	2.113	0.8	2.4	3.0 1.7	2.6	569		
Mid-western	0.4	13.9	3.2	14.5	1,197	0.0	0.2	1.4	1.4	390		
Far-western	0.4	8.2	1.8	8.9	975	0.0	0.4	2.1	2.1	278		
Subregion												
Eastern mountain	0.4	10.7	2.9	11.8	174	0.0	0.7	0.7	1.4	47		
Central mountain	0.2	17.0	5.1	18.9	196	0.3	0.3	1.1	1.1	54		
Western mountain	0.4	12.7	3.2	13.0	285	0.0	0.0	2.2	2.2	93		
Eastern hill	0.7	11.2	4.2	13.1	728	0.0	1.1	5.3	6.4	216		
Central hill	0.4	12.3	3.7	13.9	1,144	0.4	2.2	3.5	4.9	456		
Western hill	0.1	14.0	2.1	14.6	1,222	0.6	1.8	2.0	2.6	315		
Mid-western hill	0.5	13.0	2.7	13.6	529	0.0	0.5	2.1	2.1	153		
Far-western hill	0.0	9.3	0.7	9.6	324	0.0	0.0	1.9	1.9	84		
Eastern terai	1.0	13.4	2.9	14.5	1,466	0.0	0.4	1.2	1.6	444		
Central terai	0.7	9.3	1.1	9.8	1,975	0.9	2.8	4.2	5.6	587		
Western terai	0.1	10.4	1.4	11.1	892	0.0	1.7	1.4	2.6	254		
Mid-western terai Far-western terai	0.3 0.6	13.4 8.3	2.9 2.9	14.1 9.2	522 511	0.0 0.0	0.0 0.8	0.5 2.4	0.5 2.4	182 154		
	0.0	0.0	2.0	0.2	011	0.0	0.0	2.1	2.1	101		
ducation	0.4	11.6	2.3	12.2	4.809	0.0	0.9	2.4	2.4	537		
Primary	0.4	11.5	2.3	12.2	1,896	0.0	1.2	3.2	3.6	701		
Some secondary	0.8	13.7	2.6	15.0	1,879	0.2	1.5	2.2	3.0	924		
SLC and above	0.5	9.2	2.6	10.4	1,384	0.6	1.8	2.7	4.3	878		
/ealth quintile												
Lowest	0.0	12.6	2.6	13.3	1,735	0.0	0.6	2.3	2.3	481		
Second	0.4	11.7	2.5	12.6	1,913	0.0	2.0	3.5	3.8	519		
Middle	0.8	11.6	1.7	12.2	2,094	0.3	1.5	3.0	3.5	642		
Fourth	0.7	12.3	3.0	13.4	2,127	0.7	1.2	2.1	3.6	650		
Highest	0.5	10.2	2.6	11.6	2,098	0.3	1.7	2.2	3.7	747		
otal 15-49	0.5	11.7	2.5	12.6	9.968	0.3	1.4	2.6	3.4	3.039		

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate

Thirteen percent of women and 3 percent of men reported having had an STI or experiencing STI symptoms (abnormal genital discharge or genital sore or ulcer) during the 12 months preceding the survey. Differences by age, marital status, residence, and ecological zone are not pronounced. Notably, the prevalence of self-reported STIs and STI symptoms among women is much lower in the Far-western region, particularly the Far-western terai subregion. A slightly higher proportion of women and men reported STIs or STI symptoms in 2011 than in 2006.

Fifty-four percent of women and 46 percent of men did not seek any treatment or advice for STI or STI symptoms in the past 12 months while 44 percent of women and 54 percent of men sought advice or treatment from a clinic, hospital, private doctor, or other health professionals (Figure 12.1).



# Figure 12.1 Women and Men Seeking Advice or Treatment for STIs

# **12.10 PREVALENCE OF MEDICAL INJECTIONS**

Use of nonsterile injections in a health care setting can contribute to the transmission of blood-borne pathogens. To measure the potential risk of transmission of HIV associated with medical injections, respondents in the 2011 NDHS were asked whether they had received an injection in the past 12 months; if so, they were asked how many injections they had received and whether their last injection was given with a syringe from a newly opened package.

Table 12.11 shows the reported prevalence of injections. Thirty-three percent of women and 31 percent of men reported receiving a medical injection from a health worker during the 12-month period preceding the survey. Generally, women and men received an average of one medical injection during that period. The vast majority of women (98 percent) and men (99 percent) reported that the last injection was given with a syringe from a newly opened package.

#### Table 12.11 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Nepal 2011

Background	Percentage who received a medical	Average number of		For last	Number of		Average		For last	Missingly 1
characteristic	injection in the past 12 months	medical injections per person in the past 12 months	Number of women	injection, syringe and needle taken from a new, unopened package	women receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of men	injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the past 12 months
Age										
15-24 15-19 20-24 25-29 30-39 40-49	31.5 24.6 39.8 38.7 33.9 28.0	0.8 0.6 1.2 1.2 1.3 1.2	5,050 2,753 2,297 2,101 3,291 2,232	98.4 98.3 98.6 98.2 97.5 96.2	1,592 677 914 814 1,117 624	33.6 31.8 36.3 31.8 29.8 27.3	1.0 1.0 1.3 1.1 1.9	1,663 978 685 581 1,041 836	98.9 98.7 99.1 99.3 98.8 97.7	559 311 249 185 310 228
Marital status										
Never married Ever had sex Never had sex Married Divorced/separated/widowed	19.5 * 19.5 36.8 24.1	0.5 * 1.3 0.6	2,708 18 2,691 9,608 358	98.1 * 98.0 97.7 99.1	528 4 524 3,532 86	32.7 37.4 31.1 30.1 (38.5)	0.9 1.2 0.8 1.4 (0.8)	1,433 352 1,081 2,626 62	98.6 99.5 98.3 98.7	468 132 337 791 24
<b>Residence</b> Urban Rural	35.8 32.2	1.2 1.1	1,819 10,855	97.5 97.9	652 3,494	34.0 30.5	1.0 1.3	717 3,404	99.3 98.6	244 1,039
<b>Ecological zone</b> Mountain Hill Terai	28.5 30.9 34.6	0.9 0.9 1.2	805 5,090 6,779	96.2 97.1 98.4	230 1,572 2,345	19.1 28.2 34.6	0.6 1.0 1.5	245 1,658 2,218	98.9 98.4 98.9	47 468 768
Development region Eastern Central Western Mid-western Far-western	35.9 33.6 28.3 32.2 31.7	1.5 1.0 0.8 1.0 1.0	3,057 4,236 2,660 1,478 1,242	97.7 98.4 97.2 97.7 97.4	1,099 1,425 754 476 393	34.4 32.9 33.1 20.9 24.8	1.2 1.5 1.2 0.9 0.9	996 1,448 798 493 385	99.2 99.0 97.5 97.7 100.0	343 477 264 103 95
Subregion Eastern mountain Central mountain Eastern mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Far-western terai Far-western terai	29.4 24.3 31.4 33.0 36.4 23.7 31.9 30.0 38.2 32.8 34.5 33.3 32.2	0.9 0.8 0.9 1.0 0.7 0.9 0.9 1.8 1.0 1.1 1.0 1.1	229 258 319 956 1,563 1,513 649 409 1,873 2,415 1,147 668 676	96.9 97.5 94.9 97.3 97.4 96.9 98.1 97.9 99.1 98.3 98.9 97.7	67 63 100 315 569 358 207 123 716 793 396 222 217	16.2 18.7 21.1 28.2 31.5 25.4 24.0 28.6 39.2 35.4 42.6 19.8 22.1	0.4 0.8 0.9 1.2 0.7 1.0 1.0 1.5 1.9 1.8 0.8	66 69 110 293 616 440 189 120 638 763 358 242 217	(100.0) (100.0) (97.8) 99.6 99.1 96.1 97.7 100.0 99.1 98.8 98.4 98.3 100.0	11 13 23 83 194 112 45 34 250 270 153 48 48
Education No education Primary Some secondary SLC and above	32.6 32.1 31.4 35.2	1.2 1.1 0.9 1.0	5,045 2,209 3,088 2,331	97.0 97.1 98.9 98.7	1,646 710 969 821	25.7 28.5 31.6 34.6	1.4 1.2 1.1 1.4	567 814 1,437 1,303	97.9 96.8 98.9 99.8	146 232 455 451
Wealth quintile Lowest Second Middle Fourth Highest Total 15-49	27.4 30.4 34.1 35.1 35.1 32.7	0.8 0.9 1.1 1.3 1.3 1.1	2,120 2,393 2,600 2,722 2,839 12,674	97.7 97.1 97.6 98.5 97.8 97.8	582 727 886 957 995 4.147	20.5 28.7 31.8 31.4 38.1 31.1	0.9 1.0 1.1 1.3 1.7 1.3	610 695 830 920 1,066 4,121	97.4 98.7 98.9 98.9 98.7 98.7	125 199 264 289 406 1.283

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

### 12.11 HIV AND AIDS-RELATED KNOWLEDGE AND BEHAVIOR AMONG YOUTH

Knowledge of HIV and AIDS issues and related sexual behavior among youth age 15-24 is of particular interest because the period between sexual initiation and marriage is, for many young people, a time of sexual experimentation that may involve high-risk behaviors. This section considers a number of issues that relate to both transmission and prevention of HIV and AIDS among youth, including the extent to which youth have comprehensive knowledge of HIV and AIDS transmission and prevention modes and knowledge of a source where they can obtain condoms. Issues such as abstinence, age at sexual debut, and condom use are also covered in this section.

### 12.11.1 Knowledge about HIV and AIDS and of Sources for Condoms

Knowledge of how HIV is transmitted is crucial for people to avoid contracting HIV. Young people are often at greater risk because they have short relationships with more partners or engage in other risky behaviors. Table 12.12 shows the level of comprehensive knowledge of HIV and AIDS among youth and the percentage of youth who know of a source where they can obtain condoms. As noted earlier, comprehensive knowledge of HIV and AIDS is defined as knowing that condom use and having just one HIV-negative faithful partner can reduce the chances of contracting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common misconceptions about HIV transmission in Nepal (that HIV can be transmitted by mosquito bites and that it can be transmitted by sharing food with someone who has AIDS).

Table 12.12 Comprehensive knowledge about AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Nepal 2011

characteristic Age 15-19 15-17 18-19 20-24 20-22 23-24 Marital status Never married Ever had sex Never had sex Ever married Residence Urban Rural Development region Eastern Central Western Mid-western Far-western Subregion Easter mountain		Women age 15-24			Men age 15-24	
Background characteristic	Percentage with comprehensive knowledge of AIDS <sup>1</sup>	Percentage who know a condom source <sup>2</sup>	Number of respondents	Percentage with comprehensive knowledge of AIDS <sup>1</sup>	Percentage who know a condom source <sup>2</sup>	Number of respondents
Age						
	25.0	82.8	2,753	32.7	95.8	978
	22.4	79.6	1,655	30.9	95.2	616
	28.8	87.5	1,098	35.8	96.8	362
	26.7	88.5	2,297	35.6	97.6	685
20-22	26.6	88.4	1,445	37.9	98.1	437
23-24	27.0	88.8	853	31.4	96.7	248
Marital status						
	31.8	83.2	2,475	36.7	96.9	1,281
	*	*	16	35.6	99.3	285
	32.0	83.3	2,459	37.0	96.2	996
Ever married	19.9	87.5	2,575	24.5	95.3	382
Residence						
	40.2	87.2	692	42.3	96.1	289
Rural	23.5	85.1	4,358	32.1	96.6	1,373
Development region						
	25.1	83.1	1,216	31.4	96.6	407
	25.0	79.5	1,668	33.8	94.7	556
	29.3	90.2	1,026	34.8	97.7	328
Mid-western	22.1	90.5	619	34.8	97.4	198
Far-western	27.3	94.2	521	37.3	99.0	174
Subregion						
	16.8	90.9	92	22.0	96.6	29
Central mountain	19.3	85.9	97	21.5	96.4	23
Western mountain	7.2	93.2	127	25.3	100.0	44
Eastern hill	20.8	85.8	387	28.0	98.0	118
Central hill	38.9	84.9	603	44.7	96.3	239
Western hill	24.8	86.0	560	30.3	97.2	172
Mid-western hill	20.1	89.5	273	37.7	96.8	76
Far-western hill	26.1	94.1	172	42.4	100.0	60
Eastern terai	28.3	80.6	736	34.0	96.0	260
Central terai	16.9	75.5	968	25.8	93.3	294
Western terai	34.8	95.2	466	39.7	98.2	156
Mid-western terai	27.8	91.3	278	34.6	97.1	96
Far-western terai	31.9	93.9	290	37.0	98.2	96
Education						
No education	3.2	69.7	866	1.1	79.8	72
Primary	9.4	78.6	887	4.6	90.9	206
Some secondary	24.5	89.0	1,930	28.8	97.0	737
SLC and above	52.4	94.6	1,368	52.7	99.7	648
Total	25.8	85.4	5,050	33.9	96.5	1,663

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate

<sup>1</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission and prevention of AIDS. The components <sup>2</sup> For this table, the following responses are not considered sources for condoms: friends, family members, and home.

The table shows that 26 percent of young women and 34 percent of young men age 15-24 have comprehensive knowledge of AIDS. Knowledge of HIV and AIDS has declined in the past five years, from 28 percent among female youth and 44 percent among male youth. The table also shows that comprehensive knowledge is higher among youth in urban than rural areas. Among both young men and young women, the proportion with comprehensive knowledge tends to increase with level of education. Among young women the level of comprehensive knowledge about HIV is highest in the Western region (29 percent), and among young men knowledge is highest in the Far-western region (37 percent).

Because of the important role that condoms play in combating the transmission of HIV, respondents were asked whether they know of a source of condoms. Only responses about formal sources were counted, that is, sources other than friends, family members, and home. As shown in Table 12.12, young men are more likely than young women to know where to obtain a condom (97 percent versus 85 percent). At the regional level, young women in the Far-western region (94 percent) are most likely to know a condom source, while those in the Central region (80 percent) are least likely to know where to obtain a condom. Not surprisingly, knowledge varies markedly by education, rising from 70 percent among young women with no education to 95 percent among young women with an SLC and higher education. A similar trend is seen for young men.

### 12.11.2 Age at First Sexual Intercourse among Youth

Age at first sex is an important indicator of both exposure to the risk of pregnancy and exposure to STIs. Young people who initiate sex at an early age are considered to be at a higher risk of becoming pregnant or contracting an STI than young people who delay initiation of sexual activity. Consistent use of condoms can reduce such risks.

Table 12.13 shows the proportion of young women and men in the 15-24 age cohort who had sex before age 15 and before age 18. Seven percent of young women and 3 percent of young men had sex by age 15. Forty percent of young women and 24 percent of young men had sex by age 18, a decrease from five years ago (47 percent and 27 percent, respectively). As expected, the proportion initiating sexual activity early was higher among ever-married young men had initiated sexual intercourse by age 18, compared with 16 percent of never-married young men. The likelihood of early sexual debut was associated with low educational attainment among both young women and young men. Sexual debut at an early age was more common among rural than urban youth: 8 percent of rural women had initiated sex by age 15, as compared with 4 percent of urban women. Likewise, 42 percent of rural women and 24 percent of urban women had initiated sex by age 15 (9 percent).

### Table 12.13 Age at first sexual intercourse among youth

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Nepal 2011

	Women a	ge 15-24	Women a	ge 18-24	Men age	9 15-24	Men age	e 18-24
Background characteristic	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19 15-17 18-19 20-24 20-22 23-24	4.6 3.3 6.6 9.9 9.5 10.5	2,753 1,655 1,098 2,297 1,445 853	na na 37.5 40.4 39.4 42.2	na na 1,098 2,297 1,445 853	3.7 3.3 4.4 2.2 2.9 0.8	978 616 362 685 437 248	na na 28.5 22.2 21.2 24.0	na na 362 685 437 248
	10.5	000	42.2	000	0.0	240	24.0	240
Marital status Never married Ever married	0.1 13.7	2,475 2,575	0.4 57.8	1,084 2,311	2.8 3.9	1,281 382	15.9 40.3	683 365
Knows condom source <sup>1</sup> Yes No	6.4 10.7	4,312 738	38.7 45.5	2,995 401	3.2 0.0	1,605 58	24.5	1,019 28
Residence								
Urban Rural	3.9 7.5	692 4,358	23.6 42.2	500 2,895	1.4 3.4	289 1,373	17.7 25.9	199 849
Development region								
Eastern Central Western Mid-western Far-western	6.1 8.6 4.7 7.6 7.8	1,216 1,668 1,026 619 521	36.3 39.2 36.2 49.5 42.3	806 1,123 693 414 359	3.3 2.8 3.3 3.3 2.5	407 556 328 198 174	18.7 24.2 22.8 34.9 28.9	259 376 181 129 102
	7.0	521	42.5	555	2.5	174	20.9	102
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill	5.9 4.8 15.3 5.2 4.3 4.8	92 97 127 387 603 560	39.2 34.8 63.8 30.0 22.5 36.4	57 58 88 248 439 361	2.3 0.0 5.7 3.4 1.2 3.4	29 23 44 118 239 172	22.8 (34.1) 57.1 24.4 20.9 23.9	15 15 32 75 188 86
Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	8.2 6.5 6.6 11.7 4.5 5.2 6.9	273 172 736 968 466 278 290	51.7 50.3 39.2 51.3 36.0 43.1 33.6	179 121 502 626 332 188 196	3.2 1.3 3.4 4.3 3.3 3.7 1.5	76 60 260 294 156 96 96	30.2 25.1 15.8 27.0 21.7 32.3 24.7	55 35 169 173 95 54 55
Education								
No education Primary Some secondary SLC and above	17.8 14.1 3.5 0.6	866 887 1,930 1,368	70.0 57.5 40.7 10.1	704 615 930 1,146	5.5 4.4 3.7 1.7	72 206 737 648	(38.4) 35.3 31.6 16.1	46 132 330 539
Total	7.0	5,050	39.5	3,395	3.1	1,663	24.4	1,047

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate na = Not available <sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home.

### 12.11.3 Premarital Sex

The period between initiation of sexual intercourse and marriage is often a time of sexual experimentation. Table 12.14 presents information on premarital sexual intercourse and condom use among never-married youth age 15-24 in Nepal. Ninety-nine percent of never-married young women and 78 percent of never-married young men have never had sexual intercourse. Between 2006 and 2011, the percentage of nevermarried young men who had sexual intercourse during the 12 months preceding the survey increased from 8 percent to 15 percent. Among never-married, sexually active young men, 73 percent used a condom during their last sexual intercourse.

#### Table 12.14 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among men who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Nepal 2011

-	Never-m	arried women a	ge 15-24		Never-r	narried men ag	ge 15-24	
		Percentage			Percentage		intercourse i	rho had sexual n the past 12 nths:
Background characteristic	Percentage who had Percer who have sexual Number of who h never had intercourse in never- never sexual the past 12 married sexu		Percentage who have never had sexual intercourse	who had sexual intercourse in the past 12 months	Number of never- married men	Percentage who used a condom at last sexual intercourse	Number of men	
Age								
15-19 15-17 18-19 20-24	99.4 99.8 98.6 99.0	0.4 0.2 0.7 0.7	1,956 1,391 564 520	85.3 92.2 71.9 59.4	9.4 5.5 16.9 28.5	908 598 310 373	69.2 (75.4) 65.3 76.0	86 33 52 106
20-22 23-24	98.8 99.6	0.9 0.0	407 113	63.4 46.6	23.0 45.7	283 90	71.5 (83.1)	65 41
Knows condom source <sup>1</sup> Yes No	99.5 98.6	0.3 1.1	2,058 417	77.2 (95.0)	15.4 (2.0)	1,241 40	73.3 *	191 1
<b>Residence</b> Urban Rural	98.6 99.5	1.1 0.3	435 2,040	79.7 77.3	13.4 15.3	242 1,039	76.8 72.2	32 159
Development region Eastern Central Western Mid-western Far-western	99.1 99.3 99.5 99.3 99.9	0.5 0.6 0.0 0.7 0.1	634 813 505 265 258	78.4 77.5 77.9 73.3 81.4	14.9 14.1 17.0 16.2 12.1	335 417 271 134 123	(73.0) (73.1) (74.3) (58.7) (88.4)	50 59 46 22 15
Subregion Eastern mountain Central mountain Western mountain Eastern hill Central hill Western hill Mid-western hill Far-western hill Eastern terai Central terai Western terai Mid-western terai Far-western terai	99.8 98.6 97.0 98.4 98.7 99.1 100.0 100.0 99.4 100.0 99.4 99.4 99.4 99.8	0.2 0.7 3.0 0.5 1.3 0.0 0.0 0.0 0.0 0.6 0.0 0.6 0.2	51 58 34 210 357 268 111 85 373 399 237 138 157	81.4 (78.6) (78.6) 80.5 77.6 81.1 68.0 81.4 77.3 77.3 74.5 77.0 80.8	15.6 (18.9) (14.3) 10.3 19.5 13.9 18.7 11.2 16.8 9.1 20.3 14.2 12.9	22 16 21 185 141 49 43 223 215 130 74 70	* * * * * (71.7) *	3 3 9 36 20 9 5 37 20 26 10 9
Education No education Primary Some secondary SLC and above	100.0 99.6 99.2 99.4	0.0 0.0 0.5 0.6	180 289 1,147 859	(74.3) 76.2 83.7 72.0	(19.3) 18.7 9.6 19.6	34 125 583 539	* * 76.7 79.0	7 23 56 105
Total	99.4	0.4	2,475	77.8	15.0	1,281	73.0	191

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate <sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home.

### 12.11.4 Multiple Sexual Partners among Youth

Table 12.15 provides information on young men age 15-24 who had two or more sexual partners during the 12 months preceding the survey and among these men the percentage who used a condom at their last sexual intercourse. Overall, 4 percent of young men reported having sex with two or more partners in the 12 months preceding the survey and 45 percent of these men used a condom during their last sexual encounter. Men age 20-24 (7 percent) were more likely to have had two or more partners in the 12 months preceding the survey than those in the other age categories. Ever-married young men were more than twice as likely to have had two or more partners (7 percent) than never-married young men (3 percent). Young men with no education (7 percent) and those with an SLC and higher education (5 percent) are more likely to have two or more partners than other men.

Table 12.15 Multiple sexual partners in the past 12 months among young men

Among all young men age 15-24, the percentage who had sexual intercourse with two or more sexual partners in the past 12 months, and among those having two or more partners in the past 12 months, the percentage reporting that a condom was used at last intercourse, by background characteristics, Nepal 2011

	Among all me	n age 15-24	Among men age 2+ partners in the	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom at last intercourse	Number of men
Age 15-19 15-17 18-19 20-24 20-22 23-24	1.5 1.0 2.3 7.0 6.9 7.3	978 616 362 685 437 248	* * (43.2) (44.7) *	14 6 8 48 30 18
Marital status Never married Ever married	3.0 6.5	1,281 382	(61.8)	38 25
Knows condom source <sup>1</sup> Yes No	3.9 1.4	1,605 58	(45.7)	62 1
<b>Residence</b> Urban Rural	4.1 3.7	289 1,373	* (40.9)	12 51
Education No education Primary Some secondary SLC and above	6.8 2.5 2.7 5.1	72 206 737 648	* * (52.6)	5 5 20 33
Total 15-24	3.8	1,663	45.1	63

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate <sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family

members, and home.

### 12.11.5 Age Mixing in Sexual Relationships among Women Age 15-19

In many societies, young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the spread of HIV and other STIs because older men are more likely to have been exposed to these diseases. Using preventive methods such as negotiating safer sex is more difficult when age differences are large. To examine age mixing in the 2011 NDHS, young women age 15-19 who had sex in the 12 months preceding the survey were asked whether the man was younger, about the same age, or older than they were. If older, they were asked whether they thought he was less than 10 years older or 10 or more years older.

The results presented in Table 12.16 show that, among women age 15-19 who had sexual intercourse in the 12 months preceding the survey, 11 percent had sex with a man 10 or more years older. Age mixing in sexual relationships varies little by age, knowledge of a condom source, or urban-rural residence. Although there is no clear relationship between age mixing and education, women with an SLC and higher education are twice as likely as women with no education to have had sexual intercourse with a man 10 or more years older.

Table 12.16 Age mixing in sexual relationships among women age 15-19

Among women 15-19 who had sexual intercourse in the with a partner who was 10 or more years older than themselves, by background characteristics, Nepal 2011

	Women 15-19 sexual intercours 12 mor	se in the past
Background characteristic	Percentage who had sexual intercourse with a man 10+ years older	Number of women
<b>Age</b> 15-17 18-19	10.7 10.7	248 491
Marital status Never married Ever married	* 10.8	7 732
Knows condom source <sup>1</sup> Yes No	10.8 10.2	626 113
<b>Residence</b> Urban Rural	11.5 10.6	61 678
Education No education Primary Some secondary SLC and above	10.9 8.1 9.0 20.4	172 188 283 96
Total	10.7	739

<sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home. SLC = School Leaving Certificate

### 12.11.6 Recent HIV Tests among Youth

Table 12.17 shows the percentage of sexually active young women and men who were tested for HIV in the 12 months preceding the survey and received results, by selected background characteristics. Five percent of sexually active women and 13 percent of sexually active men age 15-24 had been tested for HIV in the past 12 months and received results. The differences by background characteristics were more pronounced among men than women. The percentage of sexually active young men who had been tested for HIV in the past 12 months and received results increased with age and education and was almost twice as high among nevermarried men as among ever-married men, as well as nearly twice as high in urban as in rural areas. A similar but less pronounced pattern was seen among young women.

Table 12.17 Recent HIV tests among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who were tested for HIV in the past 12 months and received the results of the last test, by background characteristics, Nepal 2011

	Among women age have had sexual int the past 12 mo	ercourse in	Among men age have had sexual in the past 12 m	tercourse in
Background characteristic	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
Age 15-19 15-17 18-19 20-24 20-22 23-24	4.4 3.3 4.9 5.1 5.2 4.9	739 248 491 1,527 887 640	9.0 7.0 10.0 14.2 13.4 15.2	154 51 103 415 219 196
Marital status Never married Ever married	* 4.8	11 2,255	18.3 10.1	191 377
Knows condom source <sup>1</sup> Yes No	5.6 0.0	1,974 291	13.1 *	550 19
<b>Residence</b> Urban Rural	6.2 4.7	243 2,022	21.8 11.4	79 489
Education No education Primary Some secondary SLC and above	1.6 4.2 4.5 10.4	608 510 679 469	(0.6) 4.6 11.7 20.4	43 103 208 215
Total	4.9	2,266	12.8	569

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

SLC = School Leaving Certificate <sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home.

### Key Findings:

- More than half of currently married employed women who earn cash make independent decisions about how to spend their earnings.
- Only 46 percent of currently married women participate in decisions pertaining to their own health care, major household purchases, and visits to their family or relatives.
- Contraceptive use increases with women's empowerment.
- Unmet need for family planning decreases with improvements in women's empowerment.
- Access to antenatal care, delivery assistance from a skilled provider, and postnatal care within the first two days of delivery increase with increasing women's empowerment.
- Infant, child, and under-five mortality rates decline with improvements in women's empowerment.

The 1994 International Conference on Population and Development declared that "advancing gender equality and equity and the empowerment of women and the elimination of all kinds of violence against women, and ensuring women's ability to control their own fertility [...] are cornerstones of population and development-related programs" (United Nations, 1994). Women's empowerment has been defined to encompass women having a sense of self-worth, access to opportunities and resources, choices and the ability to exercise them, control over their own lives, and influence over the direction of social change (United Nations Population Information Network, 1995).

Nepal is a signatory to almost all of the international conventions on human rights, women's rights, and children's rights, as well as to agreements on international goals regarding education, health, and poverty eradication. As a signatory to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted in 1979 by the United Nations General Assembly, the government of Nepal promises nondiscrimination, gender equity, and social justice as mandated by the 1990 Constitution of Nepal (Ministry of Law and Justice, 1999). The 2003 national plan of action approved by the government of Nepal for the effective implementation of CEDAW and other instruments related to human rights guarantees all rights as per the CEDAW covenants; there is also a plan of action in place to implement all 12 of the Beijing Platform of Action commitments. These commitments include addressing poverty among women, increasing access to education and health resources, and establishing support for programs to bring women to decision-making levels in all political, constitutional, and administrative units (UNFPA, 2007). Currently, Nepal is ranked 113th in the world (out of 187 countries) and fifth among the South Asian Association for Regional Cooperation (SAARC) countries on the Gender Inequality Index (UNDP, 2011b).

Data from the 2011 NDHS discussed in earlier chapters show that women in Nepal are predominantly engaged in agriculture; few have skilled manual jobs, and women are much less likely than men to be engaged in the professional, technical, and managerial fields (see Table 3.6.1). Further, women lag behind men in educational attainment, literacy, and exposure to mass media, all of which are critical contributors to women's empowerment, and exert considerable influence on the development of their personality and on strengthening women's position in the household and in society in general.

This chapter presents additional data on the status of women in Nepal, including information on gender differences in employment, access to and control over cash earnings, asset ownership, participation in household decision-making, and the relative earnings of husbands and wives. The chapter also explores how demographic and health indicators vary by women's empowerment, as measured by the number of decisions in which the woman participates and her ability to negotiate safer sexual relations with her husband (see Table 12.6). The ranking of women on these indices has been found to be associated with demographic and health outcomes, including contraceptive use, unmet need for family planning, and access to reproductive health care, as well as with child survival.

## **13.1 EMPLOYMENT AND FORM OF EARNINGS**

Employment, particularly employment for cash, and control over how earnings are used are important indicators of empowerment for women and men. Table 13.1 shows the percentage of currently married women and men age 15-49 who were employed at any time in the 12 months before the survey and the percent distribution of employed women and men by the type of earnings they received (cash only, cash and in-kind, in-kind only), if any. The table shows that 77 percent of currently married women age 15-49 were employed in the 12 months preceding the survey and that almost all currently married men were employed (98 percent). Women age 15-29 are less likely than older women to be employed, while there is no such variation by age among currently married men. The proportion of currently married women who are employed has declined over the past five years (from 83 percent in 2006 to 77 percent in 2011); by contrast, the decline in employment among currently married men has been minimal (from 99 percent in 2006 to 98 percent in 2011). Employed men and women differ greatly in the type of earnings they receive for their work. Eighty-one percent of men receive cash only or cash and in-kind payment, compared with only 30 percent of women. Sixty-one percent of women are not paid for their work at all, compared with only 12 percent of men. Thus, not only are currently married women much less likely than currently married men to be employed, they are also much less likely to be paid for the work they perform.

Table 13.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Nepal 2011

		currently spondents:		nt distribution ents employed by type c		Number of		
Age	Percentage employed	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Total	employed respondents
				WOMEN				
15-19 20-24 25-29 30-34 35-39 40-44 45-49 Total 15-49	63.0 68.9 73.0 80.3 84.5 84.7 83.6 76.8	792 1,761 1,914 1,659 1,461 1,190 832 9,608	12.1 22.2 28.9 27.2 25.4 21.1 15.4 23.5	3.5 3.8 6.0 8.5 8.1 8.0 7.4 6.7 MEN	8.2 7.1 9.6 8.1 9.9 11.3 9.5 9.1	76.2 66.9 55.5 56.2 56.6 59.6 67.7 60.8	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	499 1,213 1,397 1,331 1,234 1,007 695 7,378
15-19 20-24 25-29 30-34 35-39 40-44 45-49 Total 15-49	95.3 96.6 99.1 98.1 99.0 98.7 97.3 98.2	67 306 471 459 516 423 384 2,626	45.4 63.2 68.5 75.6 68.1 62.3 54.8 65.5	13.9 12.8 13.1 12.0 14.3 18.3 20.6 15.1	1.7 4.9 8.2 5.0 8.7 9.4 9.4 7.6	39.0 19.2 10.2 7.4 9.0 10.0 15.2 11.9	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	64 296 467 450 511 418 374 2,579

Table 13.2 shows the percent distribution of currently married women who were not employed by reason for not being employed, according to background characteristics. The results show that the most common reason given by women for not working is having small children to look after (32 percent). The next most common reasons are that women's family does not allow them to work (19 percent), they have a heavy workload at home (18 percent), and they do not need to work (16 percent). Only 4 percent of currently married unemployed women reported that lack of education or training prevents them from working, with another 4 percent reporting lack of opportunity.

Women age 30-49 are more likely than younger women to cite "no need to work" and "workload at home" as their main reason for not being employed. As expected, younger women are more likely than women in the oldest age group to report having young children to look after as their primary reason for not working. Almost one in two women (46 percent) age 15-19 and less than one in five older women said that they are not working because their family does not allow them to work.

Urban women are more likely to report no need to work than rural women, and rural women are much more likely to cite having small children to look after and family disapproval as their reason for not being employed. Unemployed women in the Central terai (34 percent) and those with no education (25 percent) are more likely to report that their family does not allow them to work than other women.

#### Table 13.2 Reasons for women not being employed in the past 12 months

Percent distribution of currently married women age 15-49 who were not employed in the past 12 months by reason for not being employed, according to background characteristics, Nepal 2011

					for not being					_
Background characteristic	No need to work	Workload at home	Small children to look after	Family does not allow	Looking for work	Lack education/ training	No opportunity	Other	Total	Number of women
Age										
15-19	12.9	7.4	20.9	45.9	3.8	3.2	2.2	3.7	100.0	293
20-24	13.0	10.6	45.3	18.7	3.0	2.0	3.5	3.8	100.0	548
25-29	12.1	15.3	47.7	12.2	3.8	3.4	4.5	1.2	100.0	517
30-34	16.5	22.2	32.7	12.4	1.5	4.2	6.3	4.2	100.0	327
35-39	18.5	28.5	16.8	13.7	3.1	8.6	5.3	5.4	100.0	226
40-44	24.5	32.2	5.3	16.3	2.0	7.9	4.0	7.8	100.0	183
45-49	35.1	26.6	2.3	16.2	3.4	4.1	2.6	9.7	100.0	137
Number of living children										
0	26.5	7.9	0.0	36.8	7.1	4.4	5.8	11.5	100.0	337
1-2	14.5	15.4	44.0	13.4	2.9	3.4	3.7	2.5	100.0	1,231
3-4	13.8	26.3	26.8	19.3	1.4	5.1	3.6	3.7	100.0	526
5+	14.5	26.8	22.4	23.8	0.0	5.4	5.6	1.6	100.0	136
Residence										
Urban	21.2	19.6	25.7	13.5	3.1	7.3	5.1	4.5	100.0	510
Rural	14.7	16.9	33.9	20.6	3.0	3.1	3.8	4.0	100.0	1,720
Ecological zone										
Mountain	12.3	13.5	41.9	4.5	1.6	7.6	2.4	16.1	100.0	21
Hill	18.7	17.8	35.0	7.5	3.3	5.4	5.0	7.2	100.0	510
Terai	15.4	17.5	31.0	22.6	2.9	3.6	3.9	3.0	100.0	1,699
Development region										
Eastern	12.9	21.3	33.9	15.2	4.0	1.9	7.1	3.6	100.0	588
Central	17.5	13.8	27.5	27.2	3.2	3.2	3.6	4.0	100.0	987
Western	19.2	17.4	35.1	11.5	2.2	7.3	2.8	4.5	100.0	398
Mid-western	13.1	21.5	41.4	9.6	1.9	7.5	0.6	4.5	100.0	174
Far-western	15.6	26.8	37.9	3.2	0.3	7.4	2.8	6.0	100.0	83
Subregion										
Eastern mountain	(12.7)	(23.1)	(28.0)	(5.7)	(4.4)	(13.1)	(0.0)	(13.1)	100.0	8
Central mountain	`*	`*´	`*´	`*´	`*	`*	`*´	` *´	100.0	5
Western mountain	*	*	*	*	*	*	*	*	100.0	8
Eastern hill	24.3	7.3	44.8	4.8	4.0	0.0	2.5	12.3	100.0	42
Central hill	19.2	17.9	29.7	9.6	4.3	5.6	6.9	6.8	100.0	270
Western hill	20.5	18.6	40.2	2.7	2.3	4.7	3.5	7.4	100.0	122
Mid-western hill	11.2	21.8	40.2	10.0	1.1	9.7	1.5	4.4	100.0	71
Far-western hill	*	21.0	+0.4	10.0	*	*	*	*	100.0	5
Eastern terai	12.1	22.4	33.2	16.2	4.0	1.9	7.6	2.8	100.0	539
Central terai	16.8	12.4	26.4	34.1	2.8	2.2	2.4	2.8	100.0	712
	18.5	12.4	20.4 32.8	34.1 15.4	2.8	2.2 8.5	2.4 2.4	2.8	100.0	276
Western terai										
Mid-western terai Far-western terai	14.8 16.1	21.4 27.7	41.9 37.7	9.3 3.5	2.6 0.3	6.3 8.1	0.0 1.6	3.8 4.8	100.0 100.0	97 76
			0	5.0	5.0	5.1				
Education No education	13.9	21.1	28.4	25.2	0.7	3.7	2.3	4.8	100.0	840
Primary	12.0	17.0	31.1	23.1	4.1	6.1	4.9	1.7	100.0	408
Some secondary	19.1	16.6	34.1	15.9	2.0	5.4	3.4	3.5	100.0	494
SLC and above	20.7	12.7	36.8	8.0	7.3	1.8	7.4	5.5	100.0	494
Wealth guintile	-				-	-				-
Lowest	3.9	16.0	39.5	25.7	0.0	1.3	3.9	9.7	100.0	100
Second	8.5	15.7	48.4	17.2	0.0	1.8	2.1	5.6	100.0	231
Middle	4.3	16.7	40.4 33.7	33.2	3.2	2.7	3.7	2.5	100.0	452
Fourth	16.8	19.4	30.7	18.7	3.8	3.1	3.7	3.8	100.0	593
Highest	25.5	17.3	26.7	11.4	3.3	6.5	5.2	4.1	100.0	854
Total	16.2	17.5	32.0	19.0	3.0	4.1	4.1	4.1	100.0	2,230

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

The most common reason for not working among women in all wealth quintiles is having young children to look after. Among the other reasons, the most common one given by women in the highest wealth quintile is no need to work, while the most common reason given by women in the lowest and middle quintiles is family disapproval.

# 13.2 WOMEN'S CONTROL OVER THEIR OWN EARNINGS AND RELATIVE MAGNITUDE OF WOMEN'S AND THEIR HUSBANDS' EARNINGS

Control over cash earnings is another dimension of empowerment. Currently married women who earn cash for their work were asked who the main decision-maker is regarding the use of their earnings. They were also asked about the relative magnitude of their earnings compared with their husband's earnings. This information provides insight into women's empowerment within the family and the extent of their control over resources. It is expected that women who are employed and who receive cash earnings are more likely to have control over household resources.

Table 13.3.1 shows the percent distribution of currently married women who received cash earnings in the past 12 months, according to the person who controls their earnings and their perception of the magnitude of their earnings relative to those of their husband. More than half of currently married women who earn cash said that they themselves mainly decide how their cash earnings are used; two in five indicated that the decision is made jointly with their husbands, and only 5 percent said that the decision is made mainly by their husbands. The proportion of currently married women who earn cash for their work and decide mainly alone on the use of their cash earnings has increased from 31 percent in 2006 to 53 percent in 2011, whereas the proportion of women who say that they jointly decide with their husbands on the use of their own earnings has decreased, from 56 percent to 40 percent. Overall, the proportion of women who participate alone or jointly with their husbands in decisions about the use of their earnings has increased from 86 percent in 2006 to 93 percent in 2011.

Decision-making alone about the use of their earnings does not vary consistently with women's age, although joint decision-making tends to increase with age. Women with five or more children are less likely to decide on how to use their cash earnings than women with one to four children and those with no children. Women's participation in the use of their own earnings varies little by urban-rural residence. The proportion of women deciding alone about the use of their earnings declines somewhat with education; however, this decline is accompanied by a sharp increase with education in the proportion who decide jointly with their husbands on the use of their earnings. A similar pattern of variation in who decides about the use of women's earnings is observed according to wealth index, except in the fourth quintile.

There is substantial regional variation in who makes decisions on how women's earnings are used. The proportion of employed women who mainly decide on the use of their earnings is highest in the terai region (55 percent); however, within this region, the proportion varies from a low of 39 percent in the Far-western terai to a high of 68 percent in the Western terai. Joint decision-making on the use of women's earnings is most common in the mountain zone, at 47 percent, and ranges from 40 percent in the Eastern mountain subregion to 52 percent in the Central and Western mountain subregions. Notably, among 16 percent of employed women with earnings in the Western mountain subregion, the main decision-maker regarding the use of the women's earnings is the husband.

Table 13.3.1 also shows women's perception of their cash earnings relative to their husbands' earnings. Among currently married women who earn cash, 74 percent say that they earn less than their husbands, 8 percent say that they earn more than their husbands, and 15 percent say that they earn about the same amount as their husbands. Thus, almost one in four women who have cash earnings in Nepal earn about the same as or more than their husbands.

The proportion of currently married women who are employed for cash and earn about the same as or more than their husbands generally increases with age, number of children, education, and wealth and is higher among urban than rural women. Notably, among the most educated women who are employed for cash and among those in the highest wealth quintile, almost 30 percent earn about the same as or more than their husbands. Women in the hill ecological zone, particularly the Mid-western and Central hill regions, are more likely than their counterparts in other regions to earn the same as or more than their husbands.

### Table 13.3.1 Control over women's cash earnings and relative magnitude of women's cash earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how their cash earnings are used and by whether women earned more or less than their husband, according to background characteristics, Nepal 2011

	Person who decides how the wife's cash earnings are used:				Wife's cash earnings compared with husband's cash earnings:							
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of wome
Age												
15-19	44.5	33.4	6.7	15.3	100.0	7.5	85.1	5.1	1.2	1.1	100.0	78
20-24	52.2	37.5	5.7	4.6	100.0	5.6	80.3	10.6	3.5	0.0	100.0	316
25-29	56.5	35.9	5.0	2.6	100.0	4.7	81.1	10.7	3.1	0.4	100.0	488
30-34	54.6	40.7	4.5	0.1	100.0	8.8	74.1	13.7	2.7	0.6	100.0	475
35-39	55.9	41.1	2.3	0.8	100.0	9.0	66.7	20.2	3.1	1.1	100.0	413
40-44	43.5	47.7	8.8	0.0	100.0	10.8	66.4	17.7	2.7	2.4	100.0	293
45-49	48.2	47.4	4.5	0.0	100.0	6.1	60.9	24.4	5.8	2.8	100.0	159
Number of living children												
0	52.3	37.8	3.6	6.3	100.0	8.0	77.4	9.3	5.4	0.0	100.0	199
1-2	52.2	40.5	5.4	1.9	100.0	7.4	73.1	15.0	3.3	1.2	100.0	1,188
3-4	55.1	39.8	4.0	1.1	100.0	7.7	73.7	15.8	2.1	0.6	100.0	686
5+	44.8	46.2	9.0	0.0	100.0	7.0	71.9	16.0	3.5	1.6	100.0	148
Residence												
Urban	55.0	39.7	4.3	1.0	100.0	10.3	69.1	15.2	4.9	0.5	100.0	459
Rural	52.0	40.6	5.2	2.2	100.0	6.8	74.7	14.7	2.7	1.1	100.0	1,764
Ecological zone	07.0	17.0	44.0		400.0	0.7	70.0	447			100.0	00
Mountain	37.9	47.3	11.6	3.2	100.0	8.7	72.0	14.7	4.4	0.1	100.0	86
Hill Terai	50.3 54.9	43.4 38.3	4.8 4.7	1.5 2.1	100.0 100.0	10.8 5.6	65.7 78.1	17.0 13.6	4.8 2.1	1.7 0.6	100.0 100.0	772 1,365
	54.5	50.5	4.7	2.1	100.0	5.0	70.1	13.0	2.1	0.0	100.0	1,505
Development region Eastern	52.4	42.4	4.2	1.0	100.0	5.2	73.4	18.3	2.6	0.5	100.0	712
Central	55.2	38.6	4.8	1.4	100.0	9.3	75.9	11.8	2.6	0.5	100.0	850
Western	56.4	35.5	5.0	3.1	100.0	7.7	70.4	13.9	4.9	3.2	100.0	370
Mid-western	40.0	48.7	7.3	4.0	100.0	7.1	66.4	20.6	4.8	1.0	100.0	161
Far-western	41.8	45.5	8.1	4.6	100.0	8.8	77.4	11.2	2.4	0.2	100.0	129
Subregion												
Eastern mountain	51.4	40.0	8.3	0.3	100.0	10.0	74.5	12.1	3.1	0.3	100.0	33
Central mountain	30.1	52.3	9.8	7.8	100.0	7.8	77.0	9.3	5.9	0.0	100.0	21
Western mountain	29.0	51.6	16.1	3.2	100.0	8.1	66.1	21.0	4.8	0.0	100.0	32
Eastern hill	47.4	49.2	2.6	0.8	100.0	4.3	70.7	18.6	6.4	0.0	100.0	134
Central hill	55.0	39.3	5.2	0.4	100.0	14.4	66.0	16.4	2.8	0.4	100.0	378
Western hill	43.4	46.7	6.9	3.0	100.0	8.0	63.3	14.9	7.6	6.1	100.0	173
Mid-western hill	49.3	44.4	1.2	5.2	100.0	8.7	58.9	26.5	4.8	1.2	100.0	67
Far-western hill	(42.1)	(49.4)	(5.7)	(2.8)	100.0	(17.1)	(71.3)	(4.9)	(6.7)	(0.0)	100.0	21
Eastern terai	`53.7 <sup>´</sup>	`40.8 <sup>´</sup>	4.4	`1.1´	100.0	<b>`</b> 5.1´	`74.0 <sup>´</sup>	18.6	`1.7 <sup>´</sup>	0.6	100.0	545
Central terai	56.6	37.3	4.2	2.0	100.0	5.0	84.1	8.0	2.3	0.6	100.0	451
Western terai	67.8	25.7	3.3	3.2	100.0	7.4	76.6	12.9	2.5	0.6	100.0	197
Mid-western terai	39.5	48.5	8.5	3.4	100.0	4.8	75.8	14.1	4.1	1.1	100.0	75
Far-western terai	39.4	46.5	9.1	5.1	100.0	7.6	78.0	12.4	1.8	0.3	100.0	97
Education												
No education	54.9	37.2	6.2	1.8	100.0	6.5	76.0	13.5	3.0	1.1	100.0	901
Primary	55.3	35.7	6.6	2.4	100.0	6.4	76.1	12.1	3.8	1.6	100.0	401
Some secondary	51.7	40.7	5.2	2.3	100.0	6.6	72.3	17.9	2.7	0.5	100.0	421
SLC and above	47.3	49.7	1.5	1.6	100.0	11.2	68.2	16.8	3.2	0.7	100.0	500
Wealth quintile												
Lowest	58.5	29.5	8.8	3.3	100.0	7.3	80.9	4.9	4.6	2.4	100.0	193
Second	51.5	40.5	4.4	3.5	100.0	4.5	82.7	9.6	2.4	0.8	100.0	348
Middle	51.1	40.3	6.9	1.6	100.0	5.9	81.6	8.9	2.2	1.4	100.0	373
Fourth	56.3	37.5	4.1	2.1	100.0	7.9	70.0	17.9	3.3	0.9	100.0	572
Highest	49.5	45.5	4.1	0.9	100.0	9.5	66.1	20.4	3.5	0.5	100.0	737
Total	52.6	40.4	5.0	1.9	100.0	7.5	73.6	14.8	3.1	1.0	100.0	2,223

Note: Figures in parentheses are based on 25-49 unweighted case SLC = School Leaving Certificate

# 13.3 CONTROL OVER HUSBANDS' EARNINGS

Currently married men age 15-49 who receive cash earnings were asked who—the men themselves, their wife, the husband and wife jointly, or someone else—decides how their own cash earnings are used. In addition, currently married women were asked who decides how their husbands' cash earnings are used. Table 13.3.2 shows that 47 percent of currently married men age 15-49 who receive cash earnings report that they decide jointly with their wives how their earnings will be used, while 39 percent say they mainly make these decisions themselves. Eight percent of men say that decisions on how their earnings are used are mainly made by their wives.

#### Table 13.3.2 Control over men's cash earnings

Mer Women Person who decides how husband's cash earnings are used: Person who decides how husband's cash earnings are used: Husband Husband Mainly Background Mainly and wife Mainly Number and wife Mainly Number characteristic wife jointly husband Other Total of men wife jointly husband Other Total of women Age 15-19 (3.1) (18.7) (41.7) (36.5) 100.0 38 30.4 27.6 34.6 100.0 747 23.8 10.2 4.4 20-24 3.2 33.4 43.0 43.4 20.0 7.8 100.0 225 12.8 40.2 23.2 22.4 100.0 1.697 25-29 8.6 40.6 100.0 381 18.6 48.9 1,870 100.0 5.3 56.5 21.0 30-34 8.8 52.0 33.9 100.0 394 18.2 100.0 1.618 2.2 2.0 35-39 8.6 50.9 38.3 100.0 420 20.5 56.5 21.1 100.0 1,420 40-44 88 547 35.3 100.0 337 164 55 4 27.0 100.0 1.143 45-49 11.6 42.7 45.5 0.1 100.0 282 13.5 57.5 28.8 0.3 100.0 781 Number of living children 7.2 16.3 28.5 12.5 6.8 29.8 44 7 186 100.0 232 38 1 26.2 100.0 1 0 0 9 8.7 34.9 992 50.7 20.5 1-2 50.0 6.3 100.0 100.0 4,308 4.0 2.2 3-4 7.3 48 0 42.4 2.3 100.0 652 19.2 51.6 25.1 100.0 3,000 12.2 41.2 1.3 14.9 30.2 5+ 45.3 100.0 201 52.7 100.0 959 Residence 10.3 7.9 16.3 16.1 57.2 48.7 Urban 52.4 33.1 4.3 100.0 400 22.1 4.4 100.0 1.214 45.3 40.4 6.3 23.8 11.3 100.0 8,063 Rural 100.0 1,677 Ecological zone 4.5 3.5 7.6 53.2 34.4 9.5 14.3 29.4 23.3 4.5 37.9 100.0 101 51.0 10.1 100.0 590 Mountain Hill 7.9 3,615 8.1 54.0 100.0 781 54.4 100.0 8.9 42.6 40.8 100.0 1,195 18.2 46.4 23.2 12.2 100.0 5,072 Terai **Development region** 9.7 53.8 31.0 100.0 529 25.5 22.7 6.6 9.5 13.5 100.0 2,225 5.5 14.7 53.1 Eastern 43.3 50.8 42.0 32.4 5.9 7.4 100.0 100.0 48.8 50.2 3,147 1,965 Central 8.8 799 19.0 100.0 349 20.6 Western 9.4 15.8 100.0 Mid-western 6.5 38 7 50.7 41 100.0 220 13.5 496 25.7 11 1 100.0 1.090 47.5 170 2.7 13.2 44.6 26.2 15.9 100.0 Far-western 42.8 6.9 100.0 849 Subregion 6.8 100.0 30 29 6.8 15.5 4.8 8.7 100.0 Eastern mountain 58.6 27.8 6.8 52.6 35.8 162 66.3 0.0 48.2 181 Central mountain 3.4 30.2 100.0 27.6 100.0 3.6 28.6 61.9 6.0 100.0 42 6.8 52.1 26.5 14.6 100.0 247 Western mountain Eastern hill 7.9 58.3 28.0 5.7 100.0 146 8.6 55.0 31.8 4.5 100.0 664 Central hill 9.1 57.4 32.0 1.5 100.0 327 18.6 56.9 21.2 3.3 100.0 1,076 Western hill 7.4 51.8 36.9 3.8 100.0 176 10.5 59.0 20.1 10.5 100.0 1.115 47.3 10.2 20.5 9.4 17.9 496 Mid-western hill 40.7 2.6 100.0 92 48.7 23.2 100.0 Far-western hill 0.0 50.8 36 1 13.0 100.0 40 207 347 24 1 100.0 265 5.3 7.8 Eastern terai 10.7 51.6 32.5 100.0 353 18.5 52.3 21.4 100.0 1,400 19.6 22.7 23.2 21.2 13.1 17.5 Central terai 90 33.7 477 96 100.0 443 44 2 100.0 1 890 11.4 49.7 28.0 10.9 174 38.6 100.0 100.0 850 Western terai 5.1 3.2 111 Mid-western terai 39.2 50.3 5.4 100.0 10.6 497 278 119 100.0 462 42.3 50.0 4.5 100.0 114 27.8 12.9 470 10.7 48.7 100.0 Far-western terai Education 27.2 No education 7.5 37.0 49.9 5.6 100.0 392 17.5 47.4 8.0 100.0 4.417 4.9 17.3 46.9 23.8 Primary 10.8 37.8 100.0 484 12.0 1,797 46.4 100.0 9.1 45.2 55.1 19.2 17.2 15.2 10.2 Some secondary 38.2 7.5 100.0 627 154 50.1 100.0 1 754 6.1 5.4 33.4 10.8 573 61.8 1.309 SLC and above 100.0 100.0 Wealth guintile 16.7 14.4 42.1 48.4 10.4 100.0 1,558 1,789 7.4 40.5 48.6 3.5 100.0 236 30.8 Lowes 325 5.8 46.4 44.7 3.1 100.0 26.1 11.1 100.0 Second Middle 8.6 40.5 41.2 9.7 100.0 482 16.4 45.9 24.5 13.2 100.0 1,965 18.2 Fourth 9.8 46.6 37.2 6.4 100.0 457 50.4 19.4 12.0 100.0 1.998 Highest 8.9 54.6 31.5 5.0 100.0 577 14.8 60.6 19.2 5.4 100.0 1,966 2,077 16.1 49.8 23.6 100.0 9,276 Total 15-49 8.4 46.7 39.0 5.9 100.0 10.4

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, according to background characteristics, Nepal 2011

Note: Figures in parentheses are based on 25-49 unweighted cases.

SLC = School Leaving Certificate

The proportion of currently married employed men who have earnings and who say that they make decisions about the use of their earnings jointly with their wives is highest among men age 40-44 (55 percent); younger (age 20-24) and older (age 45-49) men are more likely to make these decisions alone. Notably, younger men (age 20-24) are more likely than older men to say that other family members decide how their earnings are used. The proportion of men making decisions alone about the use of their income is higher in rural than in urban areas and decreases with education, from 50 percent among men with no education to 33 percent among men with a School Leaving Certificate (SLC) or higher education. This proportion also declines with wealth. Notably, more than half (55 percent) of the most educated men and men in the highest wealth quintile say that they make decisions about the use of their earnings jointly with their wives.

The main decision-maker regarding the use of men's own earnings varies greatly by region. Decisionmaking by the man alone is highest in the mountain ecological zone. Also, it is higher in the Central and Western mountain subregions, where about two-thirds of currently married employed men with earnings decide by themselves how their earnings are used, than in other subregions. Decision-making about the man's earnings mainly by the wife is most common in the terai zone, particularly the Western and Central terai.

Table 13.3.2 also shows women's responses on who makes the decision about their husbands' earnings. Only currently married women whose husbands had cash earnings are included. Half of currently married women whose husbands receive cash earnings say that they decide jointly with their husband about the use of his cash earnings, 16 percent say that they decide by themselves, 24 percent say that their husband alone decides, and 10 percent say that someone else decides.

A comparison between women's responses about the main decision-maker regarding the use of their husbands' earnings and men's responses about the use of their own earnings shows both similarities and differences. Whereas a similar proportion of women and men (50 percent and 47 percent) say that they jointly make the decision with their spouse, women are twice (16 percent) as likely as men (8 percent) to say that the wife is the main decision maker. Further, men are much more likely to say that they themselves are the main decision makers regarding the use of their own earnings than women are to say that the husband is the main decision maker (39 percent versus 24 percent).

The pattern of variation by background characteristics in women's responses about the use of their husbands' earnings is similar to that of men's responses to the use of their earnings. In general, joint decision-making increases with age, education, and wealth and is higher in the hill region and in urban areas. Decision-making alone by the husband is generally higher in the youngest and oldest age groups. Similar to younger men, a much higher proportion of younger women report that someone else makes the decision about the use of their husbands' earnings.

The level of women's earnings relative to their husbands' earnings is expected to be associated with women's control over their own and their husbands' earnings. To examine this association, Table 13.4 shows the percent distribution of currently married women with cash earnings by the person who has the main say in the use of their earnings and the distribution of currently married women by the person who has the main say in the use of their husbands' earnings, according to women's perception of the size of their own earnings relative to their husbands' earnings.

Table 13.4 Woman's control over their earnings and over those of their husbands

Percent distribution of currently married women age 15-49 with cash earnings in the past 12 months by person who decides how the wife's cash earnings are used and percent distribution of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, Nepal 2011

Women's earnings relative to husband's earnings	Person who decides how wife's cash earnings are used:					Person who decides how husband's cash earnings are used:						
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women
More than husband	59.2	36.1	3.6	1.1	100.0	167	31.0	43.3	23.1	2.6	100.0	167
Less than husband	57.0	36.0	4.8	2.2	100.0	1,635	20.6	56.2	19.8	3.4	100.0	1,635
Same as husband Husband has no cash	29.0	63.9	6.8	0.3	100.0	329	15.0	73.4	10.9	0.7	100.0	329
earnings or did not work Woman worked but has no	49.3	42.7	2.7	5.3	100.0	70	na	na	na	na	na	0
cash earnings	na	na	na	na	na	0	14.3	48.7	25.2	11.8	100.0	4,932
Woman did not work	na	na	na	na	na	0	16.1	44.6	24.7	14.5	100.0	2,191
Total	52.6	40.4	5.0	1.9	100.0	2,223	16.1	49.8	23.6	10.4	100.0	9,276

Note: Total includes cases where a woman does not know whether she earned more or less than her husband. na = Not applicable

The table shows that women's participation in the use of their own and their husbands' earnings does vary by their relative earnings; however, the variation is not necessarily as expected. The most consistent finding is that women who earn about the same as their husbands are most likely to jointly decide about the use of both their own earnings (64 percent) and their husbands' earnings (73 percent). Women who earn more than their husbands are more likely than other women to be the main decision-maker about the use of their husbands'

earnings (31 percent), but women who earn more and women who earn less than their husbands are about equally likely to be the main decision-makers about their own earnings (59 percent versus 57 percent).

# 13.4 WOMEN'S AND MEN'S OWNERSHIP OF SELECTED ASSETS

Ownership of assets, particularly high-value assets, has many beneficial effects for households, including protection against financial ruin. Women's individual ownership of assets enables their economic empowerment and provides protection in the case of marital dissolution or abandonment. The 2011 NDHS collected information on women's and men's ownership (alone, jointly, and alone and jointly) of two high-value assets, namely, land and a house.

Table 13.5.1 shows that 93 percent of women age 15-49 do not own a house and 90 percent do not own any land. Six percent of women own a house alone, and 10 percent own land alone. Notably, women who own either of these assets appear to own them mostly alone as opposed to jointly with someone else.

Women's ownership of a house and land increases with age and wealth but does not vary consistently with education. Married women are more likely to own a house (7 percent) and land (11 percent) than women who have never been married. Women who are divorced, separated, or widowed more often own a house (27 percent) and land (29 percent) alone. Urban women, those from the Eastern region, and those from the terai are more likely than rural women and women in other regions to own a house and land by themselves.

A higher proportion of men than women own a house or land. As shown in Table 13.5.2, 25 percent of men age 15-49 own a house alone and/or jointly, and 27 percent own land alone and/or jointly (as compared with 8 percent and 10 percent of women, respectively). Women's disadvantage relative to men in asset ownership is evident in every demographic and socioeconomic category.

As was the case for women, ownership of land and a house among men increases sharply with age. However, the proportions of older women and older men owning these high-value assets alone are vastly different. For example, only 15 percent of women age 45-49 own a house alone and 24 percent own land alone, compared with 63 percent and 59 percent of men age 45-49, respectively. Never-married men are slightly more likely to own a house and land than never-married women. In contrast to women, rural men are more likely than urban men to own either asset. Men's ownership of a house declines sharply with education, from 47 percent among men with no education to 18 percent among men with an SLC and higher education. Ownership of land also declines with education, but the differential is much smaller (from 36 percent among men with no education to 25 percent among men with an SLC or higher education). Surprisingly, ownership of a house declines with wealth, and ownership of land varies minimally and inconsistently with wealth. Men in the mountain zone are more likely than men in other areas to own a house and land. In particular, house and land ownership among men is highest (40 percent and 46 percent, respectively) in the Central mountain region.

## Table 13.5.1 Ownership of assets: Women

Percent distribution of women age 15-49 by ownership of a house and land, according to background characteristics, Nepal 2011

Background characteristic Age 15-19 20-24 25-29 30-34 30-34 30-00	Alone	Jointly	Alone and	who do not own a					Percentage		
15-19 20-24 25-29 30-34			jointly	house	Total	Alone	Jointly	Alone and jointly	who do not own land	Total	Number o women
20-24 25-29 30-34											
25-29 30-34	0.3	0.1	0.1	99.5	100.0	0.8	0.2	0.1	98.9	100.0	2,753
30-34	1.4	0.3	0.0	98.2	100.0	2.9	0.3	0.1	96.8	100.0	2,297
	5.4	0.7	0.3	93.6	100.0	7.9	0.5	0.2	91.4	100.0	2,101
05.00	8.7	0.8	0.4	90.1	100.0	13.6	0.6	0.1	85.8	100.0	1,734
35-39	12.3	0.6	0.8	86.4	100.0	16.3	0.4	0.5	82.8	100.0	1,557
40-44	14.1	0.9	1.6	83.4	100.0	20.3	0.7	1.1	78.0	100.0	1,285
45-49	14.8	1.1	1.0	83.1	100.0	23.8	0.3	1.0	74.9	100.0	947
/arital status											
Never married	0.4	0.2	0.1	99.3	100.0	1.1	0.3	0.1	98.5	100.0	2,708
Married	7.4	0.7	0.5	91.4	100.0	11.4	0.4	0.4	87.8	100.0	9,608
Divorced/separated/widowed	26.7	0.7	0.8	71.9	100.0	28.6	0.8	0.6	69.9	100.0	358
Residence											
Urban	9.6	0.7	0.5	89.1	100.0	12.5	0.7	0.5	86.3	100.0	1.819
Rural	5.9	0.5	0.4	93.1	100.0	9.2	0.3	0.3	90.1	100.0	10,855
Ecological zone											
Mountain	3.4	0.2	0.2	96.2	100.0	7.2	0.1	0.0	92.7	100.0	805
Hill	5.2	0.5	0.2	94.0	100.0	8.9	0.5	0.2	90.4	100.0	5,090
Terai	7.7	0.6	0.2	91.0	100.0	10.6	0.3	0.4	88.6	100.0	6,779
Development region											-,
Eastern	9.0	0.5	0.8	89.7	100.0	13.0	0.4	0.7	86.0	100.0	3.057
Central	9.0 5.9	0.5	0.5	92.9	100.0	9.9	0.4	0.7	89.3	100.0	4,236
Western	5.9 6.8	0.7	0.5	92.9	100.0	9.9 9.7	0.5	0.3	89.8	100.0	2,660
	0.0 4.7	0.5				9.7 7.1	0.3	0.2			2,000
Mid-western Far-western	4.7 3.3	0.5	0.0 0.2	94.7 96.2	100.0 100.0	4.1	0.3	0.0	92.5 95.5	100.0 100.0	1,478
	0.0	0.0	0.2	00.2	100.0		0.2	0.1	00.0	100.0	1,212
Subregion Eastern mountain	5.0	0.1	0.2	94.7	100.0	11.6	0.1	0.0	88.3	100.0	229
Central mountain	2.2	0.2	0.0	97.6	100.0	7.8	0.2	0.0	92.0	100.0	258
Western mountain	3.2	0.3	0.3	96.2	100.0	3.7	0.0	0.0	96.3	100.0	319
Eastern hill	6.5	0.1	0.1	93.3	100.0	11.4	0.5	0.2	87.9	100.0	956
Central hill	5.4	0.8	0.4	93.4	100.0	8.6	0.7	0.5	90.2	100.0	1,563
Western hill	5.7	0.5	0.3	93.5	100.0	10.2	0.4	0.1	89.3	100.0	1,513
Mid-western hill	4.6	0.7	0.0	94.7	100.0	7.3	0.5	0.0	92.2	100.0	649
Far-western hill	1.1	0.2	0.1	98.6	100.0	1.6	0.1	0.0	98.2	100.0	409
Eastern terai	10.8	0.6	1.2	87.3	100.0	13.9	0.4	1.0	84.7	100.0	1,873
Central terai	6.6	0.7	0.7	92.0	100.0	10.9	0.5	0.2	88.4	100.0	2,415
Western terai	8.2	0.6	0.5	90.7	100.0	9.0	0.1	0.3	90.5	100.0	1,147
Mid-western terai	5.1	0.4	0.0	94.5	100.0	7.5	0.3	0.1	92.1	100.0	668
Far-western terai	4.7	0.4	0.2	94.7	100.0	5.8	0.4	0.2	93.6	100.0	676
Education											
No education	7.3	0.6	0.7	91.5	100.0	10.3	0.3	0.4	89.0	100.0	5,045
Primary	6.3	0.7	0.0	93.0	100.0	10.3	0.3	0.0	89.4	100.0	2,209
Some secondary	5.1	0.5	0.5	93.9	100.0	7.9	0.6	0.3	91.3	100.0	3,088
SLC and above	6.6	0.4	0.4	92.6	100.0	10.3	0.4	0.5	88.8	100.0	2,331
Vealth guintile											
Lowest	2.6	0.3	0.2	96.9	100.0	3.9	0.1	0.0	96.0	100.0	2,120
Second	4.1	0.4	0.2	95.3	100.0	5.2	0.3	0.2	94.4	100.0	2,393
Middle	5.0	0.4	0.7	93.9	100.0	8.7	0.4	0.6	90.3	100.0	2,600
Fourth	8.0	0.8	0.3	90.9	100.0	12.9	0.6	0.2	86.3	100.0	2,722
Highest	11.2	0.9	0.7	87.2	100.0	15.6	0.5	0.6	83.2	100.0	2,839
Fotal	6.4	0.6	0.5	92.5	100.0	9.7	0.4	0.3	89.6	100.0	12,674

### Table 13.5.2 Ownership of assets: Men

Percent distribution of men age 15-49 by ownership of a house and land, according to background characteristics, Nepal 2011

	Percentage who own a house: Percentage who do not					Percentage who own land:						
Background			Alone and	who do hot own a				Alone and	Percentage who do not			
characteristic	Alone	Jointly	jointly	house	Total	Alone	Jointly	jointly	own land	Total	Number	
Age												
Ī5-19	1.6	0.4	0.2	97.8	100.0	2.9	0.3	0.2	96.5	100.0	978	
20-24	5.4	3.5	0.0	91.2	100.0	6.6	2.2	0.3	90.9	100.0	685	
25-29	13.9	1.2	0.2	84.7	100.0	17.4	1.4	0.0	81.1	100.0	581	
30-34	27.1	1.8	0.1	71.0	100.0	34.5	1.2	0.3	63.9	100.0	499	
35-39	38.7	2.8	1.2	57.2	100.0	41.2	3.3	0.7	54.8	100.0	542	
40-44	47.3	5.0	0.2	47.6	100.0	48.4	4.6	0.8	46.1	100.0	438	
45-49	62.6	2.0	0.3	35.1	100.0	59.0	3.1	1.4	36.5	100.0	399	
Marital status												
Never married	1.7	1.5	0.2	96.7	100.0	4.6	1.0	0.3	94.1	100.0	1,433	
Married	33.9	2.5	0.4	63.1	100.0	35.5	2.6	0.6	61.4	100.0	2,626	
Divorced/separated/widowed	31.1	0.0	0.0	68.9	100.0	32.4	0.0	0.0	67.6	100.0	62	
Residence												
Urban	15.3	2.8	0.4	81.4	100.0	20.1	2.0	0.6	77.3	100.0	717	
Rural	24.2	2.0	0.3	73.5	100.0	25.6	2.0	0.4	71.9	100.0	3,404	
Ecological zone												
Mountain	33.2	2.2	0.0	64.6	100.0	37.3	2.9	0.0	59.8	100.0	245	
Hill	22.9	2.4	0.0	74.6	100.0	26.2	2.3	0.3	71.1	100.0	1,658	
Terai	21.3	1.9	0.6	76.2	100.0	22.1	1.7	0.6	75.5	100.0	2,218	
Development region												
Eastern	25.7	4.2	0.6	69.5	100.0	28.8	2.8	1.1	67.2	100.0	996	
Central	21.6	2.2	0.3	76.0	100.0	23.9	2.2	0.3	73.7	100.0	1,448	
Western	20.0	0.3	0.2	79.5	100.0	21.2	0.8	0.4	77.5	100.0	798	
Mid-western	27.8	2.0	0.0	70.2	100.0	27.9	2.5	0.0	69.6	100.0	493	
Far-western	18.0	0.8	0.3	80.9	100.0	20.2	1.3	0.0	78.6	100.0	385	
Subregion												
Eastern mountain	34.1	1.0	0.0	64.9	100.0	39.3	1.0	0.0	59.7	100.0	66	
Central mountain	37.9	2.4	0.0	59.7	100.0	43.8	2.6	0.0	53.6	100.0	69	
Western mountain	29.8	2.8	0.0	67.4	100.0	32.1	4.1	0.0	63.8	100.0	110	
Eastern hill	30.1	4.2	0.1	65.6	100.0	35.5	3.3	1.0	60.2	100.0	293	
Central hill	20.2	3.7	0.0	76.1	100.0	23.7	3.5	0.0	72.8	100.0	616	
Western hill	19.4	0.0	0.0	80.6	100.0	22.5	0.4	0.4	76.6	100.0	440	
Mid-western hill	34.5	2.7	0.0	62.8	100.0	35.7	2.7	0.0	61.6	100.0	189	
Far-western hill	13.8	0.0	0.0	86.2	100.0	15.7	0.0	0.0	84.3	100.0	120	
Eastern terai	22.8	4.5	0.9	71.8	100.0	24.7	2.8	1.3	71.2	100.0	638	
Central terai	21.2	1.0	0.5	77.3	100.0	22.2	1.0	0.6	76.2	100.0	763	
Western terai	20.6	0.7	0.4	78.3	100.0	19.7	1.2	0.4	78.7	100.0	358	
Mid-western terai	20.6	0.7	0.0	78.8	100.0	19.5	1.1	0.0	79.4	100.0	242	
Far-western terai	19.4	1.4	0.6	78.7	100.0	21.3	2.3	0.0	76.4	100.0	217	
Education												
No education	45.9	0.9	0.2	52.9	100.0	34.0	1.6	0.0	64.4	100.0	567	
Primary	31.9	2.2	0.0	65.9	100.0	32.5	2.0	0.2	65.3	100.0	814	
Some secondary	16.2	1.5	0.5	81.8	100.0	20.3	1.2	0.3	78.2	100.0	1,437	
SLC and above	14.0	3.3	0.4	82.3	100.0	20.5	3.1	1.1	75.3	100.0	1,303	
Wealth quintile												
Lowest	31.1	1.3	0.0	67.6	100.0	28.4	1.8	0.0	69.8	100.0	610	
Second	26.6	0.7	0.2	72.5	100.0	25.2	0.7	0.0	74.2	100.0	695	
Middle	25.4	2.0	0.0	72.5	100.0	24.0	1.3	0.2	74.6	100.0	830	
Fourth	18.3	1.5	0.5	79.7	100.0	21.4	2.5	1.4	74.8	100.0	920	
Highest	17.0	4.1	0.6	78.2	100.0	25.6	3.2	0.5	70.7	100.0	1,066	
Total	22.7	2.1	0.3	74.9	100.0	24.7	2.0	0.5	71.8	100.0	4,121	

# 13.5 WOMEN'S PARTICIPATION IN DECISION-MAKING

The ability of women to make decisions that affect their personal circumstances is an essential element of their empowerment and serves as an important contributor to their overall development. To assess currently married women's decision-making autonomy, the 2011 NDHS collected information on their participation in three types of decisions: their own health care, making major household purchases, and visits to family or relatives. To provide an understanding of gender differences in household decision-making, currently married men were asked the same questions about their participation in decisions about their own health care and major household purchases. Table 13.6 shows the percent distribution of currently married women and men according to the person in the household who usually makes decisions concerning these matters. Women are considered to participate in decision-making if they make decisions alone or jointly with their husbands.

Table 13.6 shows that 65 percent of women participate in making decisions regarding their own health care. By contrast, the vast majority of men (87 percent) are involved in decisions about their own health care. One-third of women and the same proportion of men say that they alone make decisions about major household purchases. Only 28 percent of women decide on their own regarding visits to their family or relatives.

### Table 13.6 Participation in decision-making

Percent distribution of currently married women and currently married men age 15-49 by person who usually makes decisions about various issues, Nepal 2011

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Total	Number
		W	OMEN				
Own health care Major household purchases Visits to her family or relatives	25.7 33.5 27.7	39.7 23.7 33.3	21.8 19.8 17.0	12.4 22.3 21.5	0.4 0.7 0.6	100.0 100.0 100.0	9,608 9,608 9,608
		Ν	/IEN				
Own health care Major household purchases	6.8 22.4	31.6 27.2	55.4 33.5	5.6 15.6	0.6 1.3	100.0 100.0	2,626 2,626

Table 13.7.1 shows how currently married women's participation (alone or jointly) in decision-making varies by background characteristics. The table presents the results for the three specific types of decisions asked about, namely the woman's own health care, making major household purchases, and visits to her family or relatives. In addition, the table includes two summary indicators: the proportion of women involved in making all three decisions and the proportion not involved in making any of the three decisions.

Table 13.7.1 shows that 57 percent to 65 percent of women participate in the three decisions asked about, but less than half (46 percent) report taking part in all three decisions and about one in four (24 percent) report not participating in any of the three decisions. The percentage of women participating in all three decisions tends to increase with age and wealth. Fifty-seven percent of women in the highest wealth quintile participate in all three decisions, as compared with 40 percent of women in the lowest wealth quintile. Participation in all three decisions varies minimally and inconsistently with education. More women who are employed for cash take part in all three decisions (60 percent) than women who are employed but do not earn cash (41 percent) and women who are not employed (42 percent). Women who belong to a community group and those in urban areas are more likely to participate in all three decisions ranges from a low of 29 percent in the Far-western hill region to a high of 52 percent in the Central hill and Eastern terai regions.

Table 13.7.2 presents data on currently married men's participation (alone or jointly) in two types of decisions—their own health care and making major household purchases—by background characteristics. The table shows that 87 percent of men participate in decisions about their own health care, and 61 percent participate in decisions about major household purchases. Overall, 57 percent of currently married men age 15-49 participate in both of these decisions and only 9 percent do not participate in either. The proportion of currently married men participating in both decisions increases sharply with age but tends to decline with education and wealth. Men's participation in both decisions is higher in rural than in urban areas and in the mountain zone than in other zones. By specific subregion, participation in both decisions ranges from 46 percent in the Eastern terai region to 75 percent in the Central mountain region.

### Table 13.7.1 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Nepal 2011

		e who usually ma ne or jointly with		Percentage	Percentage who		
Background characteristic	Woman's own health care	Making major household purchases	Visits to her family or relatives	who participate in all three decisions	participate in none of the three decisions	Number c women	
Age							
15-19	35.2	18.1	21.7	12.9	60.1	792	
20-24	53.1	35.4	39.3	26.8	39.4	1,761	
25-29	68.0	57.9	61.6	46.1	21.0	1,914	
30-34	73.8	69.7	69.0	54.7	15.7	1,659	
35-39	75.1	73.8	76.7	59.8	11.2	1,461	
40-44	72.7	68.8	76.1	56.8	13.4	1,190	
45-49	70.0	68.1	77.5	54.8	12.6	832	
Employment (last 12 months)							
Not employed	57.6	52.8	53.5	41.8	32.4	2,230	
Employed for cash	79.8	74.1	74.9	59.8	9.2	2,230	
Employed not for cash	62.5	51.8	58.2	40.9	25.8	2,223 5,155	
	02.0	01.0	00.2	10.0	20.0	0,100	
Belongs to a community group	74.0	07.0	70.0	<b>F</b> 4 <b>-</b>		4 400	
Belongs to a group	74.2	67.9	70.3	54.7	14.1	4,466	
Does not belong to any group	57.7	47.9	52.9	37.5	31.7	5,141	
Number of living children							
0	45.4	25.5	31.2	19.0	48.6	1,075	
1-2	67.2	56.0	59.4	45.5	23.8	4,442	
3-4	70.2	68.4	71.0	53.9	15.7	3,091	
5+	64.1	61.9	68.9	48.0	19.2	999	
Residence							
Urban	73.2	65.8	70.5	52.4	14.5	1,261	
Rural	64.2	55.9	59.5	44.4	24.9	8,346	
Ecological zone Mountain	50.0	50.0	50.4	40.0	05.4	620	
Hill	59.8 69.9	52.2 57.4	59.4 63.9	40.2 46.3	25.4 19.1	630 3,784	
Terai	62.8	57.6	59.0	45.5	26.4	5,193	
	02.0	57.0	59.0	45.5	20.4	5,195	
Development region							
Eastern	70.4	61.1	64.6	48.6	18.9	2,293	
Central	64.4	61.4	62.8	49.2	24.2	3,210	
Western	69.3	54.1	59.5	44.3	22.0	2,031	
Mid-western	59.2	54.8	62.2	43.3	26.1	1,149	
Far-western	55.7	42.4	47.3	30.2	32.5	925	
Subregion							
Eastern mountain	65.2	54.5	62.2	45.4	22.6	169	
Central mountain	60.4	58.0	64.5	44.1	21.1	190	
Western mountain	56.0	46.8	54.1	34.3	30.1	271	
Eastern hill	67.1	53.1	65.1	42.5	19.7	702	
Central hill	72.9	67.0	69.7	52.0	13.9	1,103	
Western hill	75.8	54.7	63.8	45.9	15.3	1,164	
Mid-western hill	65.2	59.5	64.6	50.8	25.1	510	
Far-western hill	50.9	38.7	39.5	28.8	41.5	305	
Eastern terai	72.6	65.8	64.7	52.0	18.0	1,421	
Central terai	59.9	58.5	58.7	48.0	30.5	1,918	
Western terai	60.5	53.3	53.8	42.1	30.9	867	
Mid-western terai	53.5	51.0	59.8	35.0	25.8	499	
Far-western terai	59.0	45.0	52.7	33.4	27.7	488	
Education							
No education	62.4	58.4	63.2	46.3	24.5	4,580	
Primary	63.2	56.4	58.0	43.8	25.2	1,844	
Some secondary	66.9	55.6	57.7	43.8	24.1	1,833	
SLC and above	76.6	56.3	62.0	47.2	17.0	1,350	
Wealth quintile						-	
Lowest	59.0	50.7	56.4	39.9	29.0	1,664	
Second	62.0	50.7 52.3	59.8	39.9 41.3	29.0 25.6	1,846	
Middle	62.0	52.3 53.8	59.8 57.3	43.2	25.6	2,022	
Fourth	66.4	58.6	58.7	45.2	23.2	2,022 2,052	
Highest	76.6	68.9	71.8	43.2 56.5	13.0	2,032	
-							
Total	65.4	57.2	61.0	45.5	23.5	9,608	

### Table 13.7.2 Men's participation in decision-making by background characteristics

Percentage of currently married men age 15-49 who usually make specific decisions either alone or jointly with their wife, by background characteristics, Nepal 2011

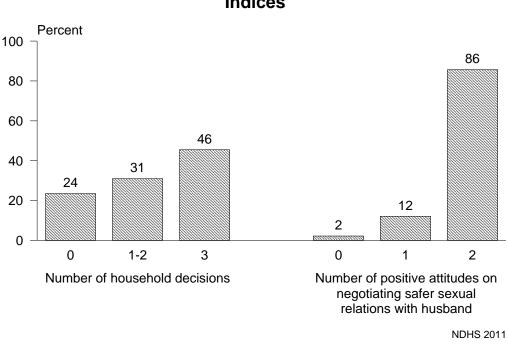
	specific decis	o usually make sions alone or their wife	Percentage	Percentage who	
Background characteristic	Man's own health care	Making major household purchases	who participate in both decisions	participate in neither of the two decisions	Number o men
Age					
15-19	51.9	33.1	26.5	41.6	67
20-24	83.4 83.8	47.4 51.8	45.3 48.2	14.5 12.6	306 471
25-29 30-34	88.2	60.6	46.2 58.1	9.2	471 459
35-39	90.9	63.3	59.2	5.0	516
40-44	89.9	72.5	67.8	5.4	423
45-49	90.5	70.6	66.8	5.6	384
Employment (last 12 months)					
Not employed	(82.4)	(43.6)	(43.6)	(17.6)	47
Employed for cash	87.2	59.4	55.4	8.8	2,077
Employed not for cash	87.0	67.6	65.1	10.5	502
Number of living children					
0	76.1	39.2	35.8	20.4	310
1-2	87.2	56.8	53.7	9.7	1,200
3-4 5+	90.3 89.0	68.6 77.3	65.2 70.7	6.3 4.3	821 295
	00.0			7.0	200
Residence Urban	89.3	51.5	49.5	8.6	425
Rural	86.6	62.5	49.5 58.5	9.4	2,201
Ecological zone					,
Mountain	89.3	75.5	71.4	6.6	179
Hill	88.4	55.7	53.0	8.9	1,057
Terai	85.8	62.5	58.3	10.0	1,390
Development region					
Eastern	83.6	55.8	50.2	10.8	607
Central	88.9	61.6	59.3	8.8	950
Western	86.0	62.0	57.2	9.2	482
Mid-western Far-western	86.1 91.9	63.3 63.0	59.9 61.0	10.5 6.1	340 247
	01.0	00.0	01.0	0.1	2.17
Subregion Eastern mountain	82.1	69.9	65.1	13.2	42
Central mountain	95.8	76.9	75.2	2.5	42 50
Western mountain	89.0	77.5	72.3	5.8	87
Eastern hill	80.6	61.2	54.3	12.6	191
Central hill	94.3	48.7	48.7	5.7	385
Western hill	89.8	54.1	51.8	8.0	270
Mid-western hill Far-western hill	82.9 83.4	64.2 68.8	57.9 67.2	10.9 15.1	133 77
Eastern terai	85.3	51.4	46.4	9.7	374
Central terai	84.2	69.8	65.7	11.7	515
Western terai	81.3	72.0	64.2	10.8	211
Mid-western terai	88.3	60.0	59.5	11.2	157
Far-western terai	97.2	53.5	52.2	1.5	133
Education					
No education	86.4	72.2	68.8	10.2	504
Primary	85.7	62.9	57.7	9.1	640
Some secondary SLC and above	85.3 90.8	55.2 56.6	52.2 53.5	11.7 6.0	799 684
	50.0	00.0	00.0	0.0	004
Wealth quintile Lowest	88.5	70.3	66.5	7.8	439
Second	87.5	68.1	64.1	7.8 8.6	439 452
Middle	80.2	58.3	53.9	15.4	569
Fourth	88.1	55.9	53.1	9.1	541
Highest	91.2	54.9	51.6	5.5	626
Total 15-49	87.1	60.7	57.1	9.3	2,626

Note: Figures in parentheses are based on 25-49 unweighted cases.  ${\rm SLC}$  = School Leaving Certificate

#### 13.6 **WOMEN'S EMPOWERMENT INDICATORS**

Women's empowerment has important implications for demographic and health outcomes, including women's use of family planning and maternal health care services. Two summary indices of women's empowerment were used to assess the relationship of selected demographic and health outcomes with women's empowerment. The first index is the number of decisions that currently married women participate in alone or jointly. This index, which ranges from 0 (participates in none of the three decisions asked about) to 3 (participates in all three decisions), provides insight into women's control over their daily lives. The second index is based on the information presented in Table 12.6 on women's attitudes toward negotiating safer sexual relations with their husbands. Specifically, women were asked whether they think that a wife who knows her husband has a disease that she can get during sexual intercourse would be justified in asking that they use a condom when having sex and whether a wife is justified in refusing to have sex with her husband when she knows he has sex with other women. Women's responses to these two questions were summarized to form the second empowerment index, number of positive attitudes toward negotiating safer sexual relations with the husband. Women were given a score of 0 on this index if they answered `no' to both questions, a score of 1 if they answered `yes' to one of the questions and 'no' to the other, and a score of 2 if they answered `yes' to both questions.<sup>1</sup> By measuring attitudes toward women refusing sex to their husbands or negotiating safer sex, this index provides insight into women's perceptions of gender equality in sexual roles and should relate positively to women's self-esteem.

Figure 13.1 shows the percent distribution of currently married women across the values of each of these indices. Twenty-four percent of women participate in no decisions, 31 percent of women participate in one or two decisions, and the remaining women (46 percent) participate in all three decisions. The percent distribution of women by their score on the negotiating safer sexual relations empowerment index is more skewed toward attitudes that support women's ability to negotiate safe sex: 86 percent of women have the highest score of 2 on this index, with 12 percent having a score of 1 and only 2 percent having a score of 0.



*Figure 13.1* Percent Distribution of Currently Married Women with their Score on Each of the Two Women's Empowerment Indices

<sup>&</sup>lt;sup>1</sup> The index on women's attitudes toward wife beating used as an indicator of women's empowerment in the 2006 NDHS was not used in the 2011 NDHS since information was collected differently in the two surveys. Specifically, instead of asking women directly whether a husband was justified in beating his wife under specific scenarios, as was done in the 2006 NDHS, the 2011 NDHS initially asked women whether they agreed with wife beating for any reason. Only if they answered 'yes' to this question were they asked the questions about wife beating in specific scenarios. Because less than 1 percent of women responded 'yes' to the filter question, the data on women's responses to questions on specific scenarios cannot be meaningfully used.

Table 13.8 examines the relationship between the two empowerment indices by showing how the percentage of women with a score of 2 on the negotiating safer sexual relations index varies by the number of decisions in which they participate and how the percentage of women who participate in all three decisions varies by their score on the negotiating safer sexual relations index.

As expected, the table shows a positive association between the two empowerment indices. The percentage of women who have positive attitudes toward negotiating safer sexual relations with their husband increases with the score on the decision-making index, from 89 percent among women who do not participate in any of the three decisions to 95 percent among women who participate in all three decisions. Similarly, the percentage of women who participate in all three household decisions increases from 35 percent among those with a score of 0 on the negotiating safer sexual relations index to 47 percent among those with a score of 2 on the index.

Percentage of currently married women age 15-49 who participate in all decision-making and

the percentage with positive att husband, by value on each of the			
Empowerment indices	decision-making	relations index	women
Number of decisions in which women participate <sup>1</sup>			
0	na	88.8	2,258
1-2	na	92.5	2,979
3	na	95.4	4,371
Number of positive attitudes on negotiating safer sexual relations with husband <sup>2</sup>			
0	34.6	na	208
1	39.3	na	1,166
2	46.6	na	8,234

na = Not applicable

See Table 13.7.1 for the list of decisions.

Table 13.8 Indicators of women's empowerment

<sup>2</sup> Attitudes include "A wife is justified in asking that they use a condom when she knows that her husband has a disease that she can get during sexual intercourse" and "A wife is justified in refusing to have sex with her husband when she knows he has sex with other women."

### 13.7 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A currently married woman's ability to have only the number of children she wants, as well as her use and choice of contraceptive methods, will be affected by her control over her own life, including her sexual relationship with her husband. A woman who is unable to control other aspects of her life may be less able to make decisions regarding her fertility. She may also feel the need to choose contraceptive methods that are less obvious or do not need the approval or knowledge of her husband. Table 13.9 shows the relationship of each of the empowerment indices with current use of contraceptive methods for currently married women.

As expected, contraceptive use is positively associated with both indices of women's empowerment. Use of any contraceptive method and any modern method is higher among women who participate in one or more decisions and increases with the number of positive attitudes toward safer sexual relations increases. For example, the percentage of women using any method increases from 34 percent among those who do not participate in any decisions to 54-55 percent among women who participate in one or more decisions. Similarly, use of any method increases from 34 percent among women with a score of 0 on the negotiating safer sexual relations empowerment index to 51 percent among those with a score of 2.

Women's use of sterilization, both female and male, as well as their use of traditional methods, is positively associated with their score on the number of decisions index. Use of temporary (female and male) methods is also higher among women who participate in any decisions than among women who participate in none; however, use of temporary methods is higher (25 percent) among women who participate in one or two decisions than among women who participate in all three decisions (20 percent). In contrast, use of temporary

#### Table 13.9 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, by the indices of women's empowerment, Nepal 2011

				Modern	methods					
Empowerment indices	Any method	Any modern method	Female sterilization	Male sterilization	Temporary modern female methods <sup>1</sup>	Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate <sup>2</sup>										
0	34.4	29.2	10.7	3.8	10.8	3.8	5.2	65.6	100.0	2,258
1-2	54.5	47.6	14.5	8.1	19.8	5.2	6.9	45.5	100.0	2,979
3	54.3	47.3	18.0	9.7	15.6	4.0	7.0	45.7	100.0	4,371
Number of positive attitudes on negotiating safer sexual relations with husband <sup>3</sup>										
0	34.3	33.1	15.5	6.4	10.7	0.5	1.2	65.7	100.0	208
1	43.4	36.9	13.8	5.8	14.5	2.8	6.5	56.6	100.0	1,166
2	51.0	44.3	15.4	8.2	16.1	4.7	6.7	49.0	100.0	8,234
Total	49.7	43.1	15.2	7.8	15.8	4.3	6.5	50.3	100.0	9,608

Note: If more than one method is used, only the most effective method is considered in this tabulation.

Pill, IUD, injectables, and implants

See Table 13.7.1 for the list of decisions.

<sup>3</sup> Attitudes include "A wife is justified in asking that they use a condom when she knows that her husband has a disease that she can get during sexual intercourse" and "A wife is justified in refusing to have sex with her husband when she knows he has sex with other women."

(female and male) methods increases with women's score on the second empowerment index, from 11 percent to 21 percent, but use of sterilization does not vary consistently with this index. This suggests that use of temporary methods is more dependent on women's attitudes toward sexual relations than is women's use of sterilization.

#### 13.8 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

Table 13.10 shows how currently married women's ideal family size and their unmet need for family planning vary by the two women's empowerment indices. Women who want to delay their next birth for two or more years (space their next birth) or have no more births (limit their births), but who are not using family planning, are considered to have an unmet need for family planning.

Table 13.10 shows that mean ideal family size varies only marginally with both indices of women's empowerment. Notably, however, more empowered women have a somewhat smaller ideal family size than those who are least empowered (i.e., those with a score of 0 on each index).

for family planning, by the indices				married women a			
	Mean ideal number of			Percentage of currently married women with an unmet need for family planning <sup>2</sup>			
Empowerment indices	children <sup>1</sup>	women	For spacing	For limiting	Total	women	
Number of decisions in which							
women participate <sup>3</sup> 0	2.3	2,253	18.3	13.2	31.6	2,258	
1-2	2.2	2,200	9.5	15.1	24.6	2,979	
3	2.2	4,355	5.2	21.1	26.3	4,371	
lumber of attitudes on negotiating safer sexual relations with husband <sup>4</sup>							
0	2.3	293	3.7	20.1	23.7	208	
1	2.3	1,526	9.7	18.4	28.1	1,166	
2	2.1	10,811	9.8	17.1	26.9	8,234	
lotal	2.1	12,630	9.6	17.4	27.0	9,608	

Mean excludes respondents who gave non-numeric responses.

See Table 7.12.1 for the definition of unmet need for family planning. Restricted to currently married women. See Table 13.7.1 for the list of decisions.

<sup>4</sup> Attitudes include "A wife is justified in asking that they use a condom when she knows that her husband has a disease that she can get during sexual intercourse" and "A wife is justified in refusing to have sex with her husband when she knows he has sex with other women.

Unmet need varies inconsistently with the two empowerment indicators. Whereas total unmet need tends to decline with women's participation in decision-making, it tends to increase with the number of positive attitudes toward negotiating safer sexual relations. Notably, there is greater variation in unmet need by the decision-making index than by the negotiating safer sexual relations index.

The decision-making index is negatively related to unmet need for spacing and positively related to unmet need for limiting. The negotiating safer sexual relations index has the opposite relationship with the two types of unmet need: unmet need for spacing increases with women's score on this index, whereas unmet need for limiting declines.

#### **REPRODUCTIVE HEALTH CARE AND WOMEN'S EMPOWERMENT** 13.9

Table 13.11 shows use of antenatal, delivery, and postnatal care services by women's scores on the two empowerment indices. It is expected that empowered women will be more likely to seek out health care services that better meet their reproductive health goals, including safe motherhood.

The results in Table 13.11 show that women's empowerment, as expected, is positively associated with women's access to and use of reproductive health services. The relationship appears much stronger for the negotiating safer sexual relations index than for the decision-making index, although the relationship is positive for both. Among women with a score of 0 on the negotiating safer sexual relations index, only 29 percent received antenatal care from a skilled provider, only 8 percent received assistance from a skilled provider at delivery, and only 15 percent received postnatal care from a health care provider within the first two days after delivery; by contrast, the corresponding proportions among women with a score of 2 on the index were 60 percent, 41 percent, and 43 percent.

Table 13.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from a skilled provider for the most recent birth, by the indices of women's empowerment, Nepal 2011

	-			
Empowerment indices	Percentage receiving antenatal care from a skilled provider <sup>1</sup>	Percentage receiving delivery care from a skilled provider <sup>1</sup>	Percentage of women with a postnatal checkup in the first two days after birth <sup>2</sup>	Number of women with a child born in the last five years
Number of decisions in which women participate <sup>3</sup> 0 1-2 3	55.3 60.4 59.0	33.0 42.0 41.7	35.7 42.5 44.6	1,239 1,292 1,573
Number of attitudes on negotiating safer sexual relations with husband <sup>4</sup> 0 1 2 Total	29.3 49.8 60.4 58.3	7.9 36.0 40.6 39.1	15.2 37.5 42.6 41.2	103 539 3,506 4,148

Skilled provider includes doctor, nurse, and midwife,

<sup>2</sup> Includes women who received a postnatal checkup from a doctor, nurse, midwife, health assistant, auxiliary health worker, maternal and child health worker, village health workers or FCHV in the first two days after the birth. Includes women who gave birth in a health facility and those who did not give birth in a health facility <sup>3</sup> Restricted to currently married women. See Table 13.7.1 for the list of decisions.

Attitudes include "A wife is justified in asking that they use a condom when she knows that her husband has a disease that she can get during sexual intercourse" and "A wife is justified in refusing to have sex with her husband when she knows he has sex with other women.'

### **13.10 INFANT AND CHILD MORTALITY AND WOMEN'S EMPOWERMENT**

A recent study conducted in Nepal indicated that there is an association between a mother's decisionmaking power and the chances of survival of her children (Adhikari and Sawangdee, 2011). The ability of women to access information, make decisions, and act effectively in their own interests or in the interests of those who depend on them is essential to their empowerment. Table 13.12 shows that infant and under-five mortality rates decline as women's empowerment index scores increase. For example, in the case of women who make no decisions, infant mortality is 67 deaths per 1,000 live births and under-five mortality is 76 deaths per 1,000 live births, compared with 46 deaths and 55 deaths per 1,000 live births, respectively, for women who make all three decisions. The sample is not large enough to reliably assess infant mortality and child mortality among women with a score of 0 on the negotiating safer sexual relations index. Even so, the relationship appears to be strongly negative since all three mortality indicators included in the table are much lower for women with a score of 2 than for women with a score of 1.

> Table 13.12 Early childhood mortality rates by indicators of women's empowerment

Infant, child, and under-five mortality rates for the 10-year period preceding the survey, by the indices of women's empowerment, Nepal 2011

Empowerment indices	Infant mortality (1q0)	Child mortality (₄q₁)	Under-five mortality (₅q₀)
Number of decisions in which women participate <sup>1</sup>			
0	67	10	76
1-2	52	10	62
3	46	9	55
Number of attitudes on negotiating safer sexual relations with husband <sup>2</sup>			
0	(90)	(18)	(106)
1	66	12	78
2	50	9	58

Note: Figures in parentheses are based on 250-499 unweighted exposed persons.

<sup>1</sup> Restricted to currently married women. See Table 13.7.1 for the list of decisions.

<sup>2</sup> Attitudes include "A wife is justified in asking that they use a condom when she knows that her husband has a disease that she can get during sexual intercourse" and "A wife is justified in refusing to have sex with her husband when she knows he has sex with other women."

These data clearly show that empowerment among women is important for their use of family planning and reproductive care as well as for the survival of their children.

### Key Findings:

- Twenty-two percent of women age 15-49 have experienced physical violence at least once since age 15, and 9 percent experienced physical violence within the 12 months prior to the survey.
- Twelve percent of women age 15-49 report having experienced sexual violence at least once in their lifetime.
- Overall, one-third of ever-married women age 15-49 report ever having experienced emotional, physical, or sexual violence from their spouse, and 17 percent report having experienced one or more of these forms of violence in the past 12 months.
- Among ever-married women who had experienced spousal violence (physical or sexual) in the past 12 months, more than two in five reported experiencing physical injuries.
- It is not common for women in Nepal to seek assistance from any source for violence they have experienced. Nearly two in three women have never told anyone about the violence they have experienced.

Various population-based studies in Nepal have indicated domestic violence as a reason for poor health, insecurity, and inadequate social mobilization among women (Women's Rehabilitation Centre Nepal, 2009). For the first time in 2011, a domestic violence module was included in the NDHS, recognizing the seriousness of the problem of gender-based violence in Nepal.

Gender-based violence is defined as any act that results in, or is likely to result in, physical, sexual, or psychological harm or suffering among women, including threats of such acts and coercion or arbitrary deprivations of liberty, whether occurring in public or in private life (United Nations, 1993; United Nations, 1995). Domestic violence, one form of gender-based violence, is defined in Nepal as any form of physical, mental, sexual, or economic harm perpetrated by one person on another with whom he or she has a family relationship, including acts of reprimand or emotional harm (Ministry of Law and Justice, Nepal, 2009). Domestic violence has negative health consequences for victims, especially with respect to the reproductive health of women and the physical, emotional, and mental health of their children.

In addition to ratifying a number of international and regional conventions on women's rights, gender equality, and social inclusion, Nepal has implemented the Domestic Violence (Offence and Punishment) Act (2066 BS) of 2009 and the Domestic Violence (Offence and Punishment) Regulation (2067 BS) of 2010. It has also implemented a national action plan (2010) against gender-based violence with the Prime Minister's declaration of 2010 as the gender-based violence free year (Office of the Prime Minister and Council of Minister, 2009) and introduced a hospital-based one-stop crisis management center in 15 selected districts (Ministry of Health and Population [MOHP], 2010d), with service centers established for victims of gender-based violence (Department of Women's Development, 2009).

The Domestic Violence (Offence and Punishment) Act emphasizes respect for the right of every person to live in a secure and dignified manner, prevention and control of violence occurring within the family or outside, making such violence punishable, and providing protection to the victims of violence. Further, it gives authority to the individuals to file complaints, provide legal remedies (including interim protection orders and compensation), and create service centers for counseling and rehabilitation, as well as defining penalties for perpetrators (Nepal Law Commission, 2009). The Three-Year Plan of Nepal (2010/2011–2012/2013) also includes as an objective elimination of various types of gender-based violence and discrimination against women and promotion of gender equality and women's empowerment (National Planning Commission, 2011).

### 14.1 MEASUREMENT OF VIOLENCE

Collecting valid, reliable, and ethical data on domestic violence poses particular challenges because what constitutes violence or abuse varies across cultures and individuals and a culture of silence usually surrounds domestic violence and can affect reporting. The sensitivity of the topic is another issue. Assuring the safety of respondents and interviewers when asking about domestic violence in a familial setting and protecting women who disclose violence and the risk of double-victimization of respondents as they relive their experience while reporting raise specific ethical concerns. The responses to these challenges by the 2011 NDHS are described below.

### 14.1.1 Use of Valid Measures of Violence

In the 2011 NDHS, information was obtained from ever-married women on violence committed by their current and former spouses and by others, and information was collected from never-married women on violence by anyone, including boyfriends. Since international research shows that intimate partner violence is one of the most common forms of violence against women, information on spousal violence was measured in more detail than violence by other perpetrators. This was done by using a shortened and modified version of the Conflict Tactics Scale (Strauss, 1990). Specifically, spousal violence by the most current husband/partner for currently married women and the most recent husband/partner for formerly married women was measured by asking all ever-married women the following set of questions.

(Does/did) your (last) (husband/partner) ever:

- (a) Push you, shake you, or throw something at you?
- (b) Slap you?
- (c) Twist your arm or pull your hair?
- (d) Punch you with his fist or with something that could hurt you?
- (e) Kick you, drag you, or beat you up?
- (f) Try to choke you or burn you on purpose?
- (g) Threaten or attack you with a knife, gun, or any other weapon?
- (h) Physically force you to have sexual intercourse with him even when you did not want to?
- (i) Force you to perform any sexual acts you did not want to?

For every question that a woman answered 'yes,' she was asked about the frequency of the act in the 12 months preceding the survey. A 'yes' answer to one or more of items (a) to (g) above constitutes evidence of physical violence, and a 'yes' answer to item (h) or (i) constitutes evidence of sexual violence.

Similarly, emotional violence among ever-married women was measured by the following questions.

(Does/did) your (last) (husband/partner) ever:

- (a) Say or do something to humiliate you in front of others?
- (b) Threaten to hurt or harm you or someone close to you?
- (c) Insult you or make you feel bad about yourself?

This approach of asking about specific acts to measure different forms of violence has the advantage of not being affected by different understandings of what constitutes a summary term such as "violence." By

including a wide range of acts, this approach has the additional advantage of giving the respondent multiple opportunities to disclose any experience of violence.

In addition to these questions that were asked only of ever-married women, all women were asked about physical violence from persons other than the current or most recent spouse/partner.<sup>1</sup> Respondents who answered yes to this question were asked who committed violence against them and the frequency of such violence during the 12 months preceding the survey. Women who reported experiencing different forms of violence were asked for the perpetrators of the violence.

Although this approach to questioning is generally considered to be optimal, the possibility of underreporting of violence, particularly sexual violence, cannot be entirely ruled out in any survey, and this survey is no exception.

### 14.1.2 Ethical Considerations in the 2011 NDHS

In recognition of the challenges in collecting data on violence, the interviewers in the 2011 NDHS were given special training. The training focused on how to ask sensitive questions, ensure privacy, and build rapport between interviewer and respondent. Rapport with the interviewer, confidentiality, and privacy are all keys to building respondents' confidence that they can safely share their experiences with the interviewer. Placement of the violence questions at the end of the questionnaire also provides time for the interviewer to develop a certain degree of intimacy that should further encourage respondents to share their experiences of violence, if any. In addition, the following protections were built into the survey or the questionnaire in keeping with the World Health Organization's ethical and safety recommendations for research on domestic violence (WHO, 2001):

- Only one woman per household was administered the questions on violence to maintain confidentiality. One in every two households was preselected for an interview on violence, and in the selected household one female respondent was randomly selected to receive the questions on domestic violence. The random selection of one woman was done through a simple selection procedure based on the Kish Grid, which was built into the Household Questionnaire (Kish, 1965).
- 2. As a means of obtaining additional consent, beyond the initial consent at the start of the interview, the respondent was informed that the questions could be sensitive and was reassured regarding the confidentiality of her responses.
- 3. The violence module was implemented only if privacy could be obtained. The interviewers were instructed to skip the module, thank the respondent, and end the interview if they could not maintain privacy during the implementation of this module.
- 4. A brochure that included information on domestic violence and contact information for service centers across the country was provided to all eligible women after the interview was completed, irrespective of whether they were selected for the module or not. This was done to safeguard against identifying the woman selected for the module and to provide information to all women so that they could access the services and be informed about what to do in the event of domestic violence.

### 14.1.3 Subsample for the Violence Module

The domestic violence module was implemented only in the subsample of households selected for the men's survey. Further, in keeping with ethical requirements, as mentioned above, only one woman per household was selected for the module. These restrictions resulted in a total of 4,210 women being eligible for the module, of whom 4,197 were successfully interviewed. Thirteen eligible women were not interviewed because, in their case, complete privacy could not be obtained. Specially constructed weights were used to

<sup>&</sup>lt;sup>1</sup> As none of the women selected for the domestic violence module were living together with a partner who was not their husband, the following sections refer to husbands only, as necessary.

adjust for the selection of only one woman per household and to ensure that the domestic violence subsample is nationally representative.

### 14.2 EXPERIENCE OF PHYSICAL VIOLENCE

Table 14.1 shows that more than one in five (22 percent) women age 15-49 have experienced physical violence since age 15 and that 9 percent experienced physical violence in the 12 months prior to the survey. Overall, 2 percent of women reported that they had experienced physical violence often in the past 12 months, and 7 percent said they had experienced physical violence sometimes during the past 12 months.

The experience of physical violence varies substantially by background characteristics. The percentage of women who have experienced physical violence since age 15 increases with age from 10 percent among women age 15-19 to 30 percent among women age 40-49. Women age 20-39 are more likely than other women to have experienced physical violence during the 12 months prior to the survey. Women who are employed for cash are more likely than other women to have experienced physical violence since age 15 as well as during the 12 months preceding the survey (28 percent and 11 percent, respectively).

Ever-married women are more likely than never-married women to have experienced physical violence, indicating that in Nepal violence perpetrated by spouses is more prevalent than violence perpetrated by other individuals. Twenty-eight percent of women who are divorced, separated, or widowed and 26 percent of currently married women have experienced physical violence since age 15, as compared with 6 percent of never-married women. Currently married women are more likely to have experienced physical violence in the past 12 months (12 percent) than formerly married women (5 percent).

|--|

Percentage of women age 15-49 who have experienced physical violence since age 15 and percentage who experienced physical violence during the 12 months preceding the survey, by background characteristics, Nepal 2011

	Percentage who	Percentage	who experienced phy in the past 12 month		
Background characteristic	have experienced physical violence since age 15 <sup>1</sup>	Often	Sometimes	Often or sometimes	Number o women
Current ago	, i i i i i i i i i i i i i i i i i i i				
Current age 15-19	9.6	1.4	4.3	5.7	988
20-24	18.2	2.5	8.3	10.7	817
25-29	24.2	2.4	8.4	10.8	646
30-39	28.2	1.8	8.7	10.5	988
40-49	29.6	1.9	7.5	9.4	758
Employment (past 12 months)					
Not employed	19.4	2.5	7.0	9.5	976
Employed for cash	28.2	2.8	8.4	11.2	932
Employed not for cash	19.7	1.4	7.0	8.4	2,289
	10.7	1.4	7.0	0.4	2,205
Marital status					
Never married	5.8	0.5	2.3	2.7	972
Married	26.1	2.4	9.1	11.5	3,084
Divorced/separated/widowed	28.4	1.4	3.9	5.3	140
Number of living children					
0	9.2	1.1	3.6	4.7	1,342
1-2	23.1	1.9	8.4	10.3	1,466
3-4	29.8	3.1	9.1	12.2	1,055
5+	37.7	1.7	11.7	13.4	334
Residence					
Urban	10.2	1 5	7.4	0.0	1.075
	19.3	1.5	7.4	8.8	1,075
Rural	22.3	2.1	7.3	9.4	3,122
Ecological zone					
Mountain	17.4	0.6	5.4	6.0	442
Hill	16.8	1.4	6.4	7.7	2,038
Terai	28.1	2.9	9.0	11.9	1,717
Education					
No education	32.5	3.2	10.3	13.5	1,654
Primary	20.2	2.1	8.4	10.5	690
Some secondary	14.8	1.3	5.1	6.5	1,030
SLC and above	9.1	0.1	3.2	3.2	823
	5.1	0.1	3.2	5.2	023
Wealth quintile					
Lowest	20.9	1.7	8.2	9.9	884
Second	25.1	3.0	7.3	10.3	716
Middle	28.2	3.4	9.7	13.0	750
Fourth	23.5	1.4	7.7	9.0	885
Highest	12.3	0.8	4.4	5.1	962
Total	21.5	1.9	7.3	9.3	4,197

<sup>1</sup> Includes in the past 12 months

Experience of physical violence among women increases with the number of living children. While 9 percent of women with no children report having ever experienced physical violence, this percentage increases to 38 percent among women with five or more children. Experience of physical violence in the past 12 months follows a similar pattern, ranging from 5 percent among women with no children to 13 percent among women with five or more children.

Rural women (22 percent) are more likely to have ever experienced physical violence than urban women (19 percent). However, experience of physical violence in the 12 months prior to the survey is similar in urban and rural areas (9 percent each). Women in the terai are more likely to have ever experienced physical violence (28 percent) than women in the other ecological zones (17 percent). Twice as many women in the terai (12 percent) as in the mountain zone (6 percent) experienced physical violence in the 12 months prior to the survey.

Experience of physical violence decreases with education, from 33 percent among women with no education to 9 percent among women with a School Leaving Certificate (SLC) and higher education. Similarly, only 3 percent of women with an SLC and higher education reported experiencing physical violence in the 12 months preceding the survey, compared with 14 percent of women with no education.

The relationship between wealth and experience of physical violence is less clear. Experience of physical violence increases from 21 percent among women in the lowest wealth quintile to 28 percent among women in the middle quintile and then declines sharply to 12 percent among women in the highest wealth quintile. Women's experience of physical violence in the past 12 months varies similarly with wealth.

### 14.3 PERPETRATORS OF PHYSICAL VIOLENCE

Table 14.2 shows perpetrators of physical violence, according to women's marital status, among those who have experienced physical violence since age 15. The most commonly reported perpetrator of physical violence among ever-married women is the current husband (84 percent), indicating a high level of spousal violence. Former husbands and in-laws are cited as perpetrators of physical violence by 7 percent and 6 percent, respectively, of ever-married women.

Among never-married women who have experienced physical violence since age 15, the most common perpetrators of violence are siblings (38 percent), fathers or stepfathers (36 percent), and mothers or stepmothers (30 percent).

### 14.4 EXPERIENCE OF SEXUAL VIOLENCE

Table 14.2 Persons committing physical violence

Among women age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to their marital status, Nepal 2011

	Marita	status	
Person	Ever married	Never married	Total
Current husband	84.3	na	79.0
Former husband	6.9	na	6.4
Father/stepfather	3.2	(36.3)	5.3
Mother/stepmother	3.6	(30.1)	5.2
Sister/brother	2.3	(38.2)	4.6
Other relative	4.3	(11.2)	4.8
Mother-in-law	4.6	na	4.3
Father-in-law	4.2	na	3.9
Other in-law	5.9	na	5.5
Teacher	0.3	(7.7)	0.7
Employer/someone at work	0.5	0.0	0.5
Police/soldier	0.1	0.0	0.1
Other	1.5	(1.7)	1.5
Number of women	846	57	903

Note: Figures in parentneses are based on 25-49 unweighted cases. na = Not applicable

Table 14.3 shows the percentage of women age 15-49 who have ever experienced sexual violence according to background characteristics. The results show that 12 percent of women have ever experienced sexual violence. There is notable variation in the experience of sexual violence by age. Younger women (age 15-19) are less likely to report sexual violence than older women (age 30-49). Women who are employed for cash are more likely to have ever experienced sexual violence (18 percent) than women who are employed but not for cash and women who are not employed (11 percent each).

Women who are divorced, separated, or widowed are more likely to have ever experienced sexual violence (22 percent) than currently married women (15 percent) and never-married women (2 percent). Differences in the experience of sexual violence are also seen by residence and region. Rural women are somewhat more likely to have experienced sexual violence (13 percent) than urban women (11 percent). Women in the terai are more likely to have experienced sexual violence (15 percent) than women in the mountain (13 percent) and hill (10 percent) zones.

#### Table 14.3 Experience of sexual violence

Percentage of women age 15-49 who have ever experienced sexual violence and percentage who experienced sexual violence in the 12 months preceding the survey, by background characteristics, Nepal 2011

	Percenta	ge who have	
	experienced	sexual violence <sup>1</sup>	
Background characteristic	Ever <sup>2</sup>	In the past 12 months	Number of women
Current age			
15-19	4.6	2.8	988
20-24 25-29	10.9 14.2	7.4 7.4	817 646
25-29 30-39	14.2	8.3	988
40-49	16.1	6.7	758
Employment (past 12 months)			
Not employed	10.5	5.8	976
Employed for cash	18.4	7.7	932
Employed not for cash	10.6	6.1	2,289
Marital status			
Never married	1.9	0.3	972
Married	15.2	8.5	3,084
Divorced/separated/widowed	22.4	3.4	140
Residence			
Urban	10.7	6.4	1,075
Rural	12.9	6.4	3,122
Ecological zone			
Mountain Hill	13.1	6.8	442
Hill Terai	9.8 15.2	5.4 7.5	2,038 1,717
	10.2	1.5	1,717
Education	17.1		1 654
No education Primary	17.1	8.9 7.1	1,654 690
Some secondary	8.8	4.6	1,030
SLC and above	7.3	3.1	823
Wealth quintile			
Lowest	12.1	6.9	884
Second	14.2	7.2	716
Middle	15.0	7.9	750
Fourth	12.0	5.9	885
Highest	9.4	4.6	962
Total	12.3	6.4	4,197

SLC = School Leaving Certificate

<sup>1</sup> Excludes women who experienced forced sexual initiation but no other forms of sexual violence

<sup>2</sup> Includes in the past 12 months

The experience of sexual violence decreases with education from 17 percent among women with no education to 7 percent among women with an SLC and higher education. There is no clear relationship between sexual violence and wealth, although women in the highest wealth quintile are less likely to report sexual violence than women in the other quintiles.

Six percent of women report having experienced sexual violence in the 12 months preceding the survey. The variation by background characteristics among women who experienced sexual violence in the past 12 months is similar to the variation among women who have ever experienced sexual violence.

### 14.5 PERPETRATORS OF SEXUAL VIOLENCE

Table 14.4 shows the percentage of women, by marital status, who have ever experienced sexual violence according to specific persons who committed the violence. Among ever-married women, the current husband is the most commonly reported perpetrator of sexual violence (87 percent). The next most common perpetrator is a former husband (6 percent). Among all women, 3 percent have Table 14.4 Persons committing sexual violence

Among women age 15-49 who have experienced sexual violence, percentage who report specific persons who committed the violence, according to their marital status, Nepal 2011

	Marita	status	
Person	Ever married	Never married	Total
Current husband	86.8	na	83.7
Former husband	5.5	na	5.3
Current/former boyfriend	0.3	*	1.5
Other relative	1.8	*	2.3
Own friend/acquaintance	0.7	*	0.9
Family friend	0.4	*	0.5
Teacher	0.0	*	0.2
Stranger	2.2	*	2.9
Other	0.3	*	0.7
Number of women	499	18	517

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. na = Not applicable

experienced sexual violence perpetrated by a stranger and 2 percent by a relative.

### 14.6 EXPERIENCE OF DIFFERENT FORMS OF VIOLENCE

Table 14.5 presents information on the experience of various forms of violence among women age 15-49. Overall, 26 percent of women reported that they have experienced either physical or sexual violence. Fourteen percent have experienced physical violence only, 5 percent have experienced sexual violence only, and 8 percent have experienced both physical and sexual violence. As discussed earlier, the percentage of women who have ever experienced violence increases with age, and this pattern is consistent for most forms of violence.

### 14.7 FORCED AT SEXUAL INITIATION

Table 14 5	Experience of d	ifferent forms o	f violence

Percentage of women age 15-49 who have experienced different forms of violence, by current age, Nepal 2011

Age	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence	Number of women
15-19 15-17 18-19 20-24 25-29 30-39 40-49 Total	7.7 5.2 11.4 11.2 15.1 16.4 19.3	2.7 1.1 4.9 3.9 5.1 5.4 5.8	1.9 1.2 2.9 7.0 9.1 11.9 10.2 7.8	12.3 7.5 19.3 22.0 29.3 33.6 35.4	988 587 401 817 646 988 758 4,197

In the 2011 NDHS, all women who had ever had sex were asked "The first time you had sexual intercourse, would you say that you had it because you wanted to, or because you were forced to have it against your will?" Table 14.6 shows that 29 percent of women who had ever had sex reported that their sexual initiation was forced.

#### Table 14.6 Forced sexual initiation

Percentage of women age 15-49 who have ever had sexual intercourse who say that their first experience of sexual intercourse was forced against their will, by age at first sexual intercourse, and whether the first sexual intercourse was at the time of first marriage or before, Nepal 2011

	Percentage whose first sexual intercourse was forced against their will	Number of women who have ever had sex
Age at first sexual intercourse		
<15	46.5	539
15-19	28.6	1,912
20-24	19.2	618
25-29	16.3	76
30-49	*	16
First sexual intercourse was: At the time of first marriage/		
first cohabitation Before first marriage/first	29.3	3,041
cohabitation <sup>1</sup>	32.1	119
Total	29.4	3,225

Note: Total includes 65 women for whom the age at first sex was missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.  $^{1}$  Includes never-married women

Forced sexual initiation varies by age at first sexual intercourse. Almost half of women (47 percent) who first had sex before age 15 said that they were forced against their will, compared with 16 percent of women who had sex at age 25 or later. For most women in Nepal, first sexual intercourse occurs at the time of first marriage. Even so, forced sexual initiation is only somewhat higher among women whose first sexual intercourse took place before marriage than among women whose first intercourse occurred after their marriage.

### 14.8 VIOLENCE DURING PREGNANCY

Respondents who had ever been pregnant were asked specifically whether they had ever experienced physical violence while pregnant and, if so, who the perpetrators of the violence were.

Table 14.7 shows that 6 percent of women experienced physical violence during a pregnancy. Although there is no clear pattern between current age and violence during pregnancy, younger women (age 15-19) are more likely than

older women to report having experienced violence during pregnancy. Women who are divorced, separated, or widowed are more likely to report experiencing violence during pregnancy (10 percent) than women who are currently married (6 percent).

Women with one or two children are only half as likely to report violence during pregnancy (4 percent) as women with three or more children and women with no children (8 percent each). The proportion of women experiencing violence during pregnancy is higher in rural areas (7 percent) than in urban areas (4 percent) and higher in the terai (9 percent) than in the other ecological zones (4-5 percent).

The experience of violence during pregnancy declines with education, from 8 percent among women with no education to 2 percent among women with an SLC and higher education. Women in the lowest wealth quintile are more likely than those in the highest wealth quintile to have experienced violence during pregnancy.

### 14.9 MARITAL CONTROL BY HUSBAND

Close control and monitoring of their wives' behavior by husbands is known to be an important warning sign and correlate of violence in a relationship. A series of questions were included in the 2011 NDHS to elicit the degree of marital control exercised by husbands over wives. Controlling behaviors most often manifest themselves in terms of extreme possessiveness, jealousy, attempts to isolate the wife from her family and friends, and not trusting her with money. To determine the degree of marital control husbands exercise over their wives, ever-married women were asked whether their current or former husband exhibited each of the following controlling behaviors: (1) is jealous or gets angry if she talks to other men, (2) frequently accuses her of being unfaithful, (3) does not permit meetings with female friends, (4) tries to limit contact with her family, (5) insists on knowing where she is at all times, and (6) does not trust her with any money. Because the concentration of such behaviors is more significant than the display of any single behavior, the proportion of women whose husbands display at least three of the specified behaviors is highlighted. Table 14.8 presents the percentage of ever-married women whose husbands display each of the listed behaviors, by selected background characteristics.

#### Table 14.7 Violence during pregnancy

Among women age 15-49 who have ever been pregnant, percentage who have ever experienced physical violence during pregnancy, by background characteristics, Nepal 2011

	Percentage who	Number of
	have ever	women who
	experienced	have ever
Background	physical violence	been
characteristic	during pregnancy	pregnant
	during pregnancy	pregnant
Current age		
15-19	8.6	155
20-24	6.8	542
25-29	5.1	585
30-39	5.8	959
40-49	6.4	740
Marital status		
Never married	*	1
Married	6.0	2,857
Divorced/separated/widowed	9.9	123
Number of living children		
0	8.4	127
1-2	4.4	1,466
3-4	7.7	1,400
5-4 5+	8.1	334
•	0.1	334
Residence		
Urban	3.8	722
Rural	6.9	2,260
Ecological zone		
Mountain	5.3	306
Hill	4.2	1,421
Terai	8.6	1,255
Education		
No education	7.5	1,508
Primary	7.4	538
Some secondary	4.7	519
SLC and above	1.7	417
Wealth quintile		
Lowest	8.3	631
Second	6.6	497
Middle	7.1	579
Fourth	6.1	622
Highest	2.9	653
•		
Total	6.2	2,982

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. SLC = School Leaving Certificate

The main controlling behaviors women experienced from their husbands were jealousy or anger if they talked to other men and husbands insisting on knowing where they are at all times (17 percent each). The next most common behaviors were husbands not trusting them with money (10 percent), trying to limit their contact with their families (8 percent), frequently accusing them of being unfaithful (7 percent), and not permitting them to meet female friends (6 percent).

Eight percent of ever-married women say that their husbands display three or more of these controlling behaviors. Women who have been married more than once are most likely to report that their husbands display at least three controlling behaviors (25 percent), followed by women who are divorced, separated, or widowed (23 percent). In general, having a husband who displays at least three controlling behaviors varies minimally and inconsistently by background characteristics.

#### Table 14.8 Marital control exercised by husbands

Percentage of ever-married women age 15-49 whose husband ever demonstrates specific types of controlling behaviors, according to background characteristics, Nepal 2011

			Perce	entage of wom					
Background characteristic		Frequently accuses her of being unfaithful	Does not	Tries to limit her contact with her family		Does not trust her with any money	Displays three or more of the specific behaviors	Displays none of the specific behaviors	Number of women
Current age									
15-19	19.2	4.7	6.8	10.1	13.8	6.4	9.1	66.1	261
20-24	19.3	8.9	5.3	7.7	18.4	11.7	8.8	64.1	634
25-29	18.8	8.0	6.4	10.9	20.6	8.2	9.5	63.8	603
30-39	17.8	7.9	5.9	7.2	16.4	9.2	8.7	67.7	974
40-49	12.9	6.1	6.4	6.8	14.3	10.7	6.6	68.8	754
Employment (past 12 months)									
Not employed	17.1	7.2	7.5	8.9	18.1	10.9	10.3	64.1	668
Employed for cash	19.2	8.9	6.8	9.9	18.8	11.4	10.4	63.1	768
Employed not for cash	16.5	6.9	5.2	7.1	15.6	8.4	6.8	68.6	1,789
Number of living children									
0	19.2	8.4	8.3	11.3	20.3	9.6	11.2	62.3	370
1-2	16.1	6.6	5.3	7.9	16.8	8.2	7.4	68.0	1,466
3-4	16.9	7.7	5.2	7.3	15.0	12.0	8.3	66.6	1,055
5+	21.5	9.4	9.9	8.5	19.1	8.6	9.9	63.2	334
Marital status and duration									
Currently married	16.9	6.6	5.6	7.7	16.6	9.0	7.7	66.8	3,084
Married only once	16.1	6.0	5.0	7.1	16.1	8.2	6.8	67.8	2,922
0-4 years	16.5	4.6	3.7	9.3	15.7	6.4	6.5	69.2	641
5-9 years	17.6	7.4	4.9	4.7	18.7	8.2	6.9	67.0	588
10+ years	15.4	6.0	5.5	7.2	15.4	8.8	6.8	67.6	1,693
Married more than once	32.7	18.7	17.0	17.6	25.9	23.7	24.7	48.9	162
Divorced/separated/widowed	24.4	25.0	16.0	17.9	22.0	23.7	22.8	56.9	140
Residence									
Urban	18.2	7.1	5.2	7.3	19.8	7.3	7.2	63.9	778
Rural	17.0	7.6	6.3	8.4	15.9	10.4	8.8	67.2	2,447
Ecological zone									
Mountain	14.6	5.3	3.6	6.5	23.6	7.7	7.5	66.5	335
Hill	18.3	6.8	5.9	7.9	16.4	8.0	7.7	68.5	1,520
Terai	16.8	8.7	6.9	8.8	15.7	11.9	9.4	64.0	1,370
Education									
No education	19.4	9.6	7.8	8.7	16.7	11.6	10.1	64.1	1,572
Primary	18.6	6.4	5.7	7.3	16.3	11.1	9.1	65.8	587
Some secondary	16.9	6.5	4.7	10.2	18.9	6.7	7.8	66.1	582
SLC and above	9.0	2.9	2.6	4.7	15.6	4.8	2.5	75.0	483
Wealth quintile									
Lowest	20.9	8.1	7.3	9.4	18.1	10.6	10.5	64.5	672
Second	20.0	9.1	6.7	7.9	15.1	10.5	9.8	66.8	551
Middle	19.1	8.2	5.9	9.5	14.9	12.6	7.6	62.1	624
Fourth	18.4	8.0	6.2	8.6	17.9	8.4	8.6	66.2	678
Highest	8.8	4.4	4.4	5.4	17.8	6.5	5.7	71.8	698
Total	17.3	7.4	6.1	8.1	16.9	9.6	8.4	66.4	3,225

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women. SLC = School Leaving Certificate

### 14.10 FORMS OF SPOUSAL VIOLENCE

Different types of violence are not mutually exclusive, and women may report multiple forms of violence. Research suggests that physical violence in intimate relationships is often accompanied by psychological abuse and, in one-third to more than one-half of cases, by sexual abuse (Krug et al., 2002). Table 14.9 shows the percentage of ever-married women age 15-49 who have experienced various forms of violence by their husband, over the course of the marriage and in the 12 months preceding the survey. Note that women who are currently married reported on violence by their current husband, and women who are widowed, divorced, or separated reported on violence by their most recent husband.

### Table 14.9 Forms of spousal violence

Percentage of ever-married women age 15-49 who have experienced various forms of violence committed by their husband, ever or in the 12 months preceding the survey, Nepal 2011

		In	the past 12 mo	nths
Type of violence	Ever	Often	Sometimes	Often or sometimes
Physical violence				
Any	23.1	2.0	8.4	10.4
Pushed her, shook her, or threw	2011	2.0	011	
something at her	15.5	1.6	6.0	7.6
Slapped her	20.1	1.2	7.0	8.2
Twisted her arm or pulled her hair	9.3	0.9	3.5	4.3
Punched her with his fist or with something				
that could hurt her	7.8	0.8	2.8	3.6
Kicked her, dragged her, or beat her up	9.6	1.3	3.2	4.5
Tried to choke her or burn her on purpose	2.6	0.4	1.0	1.4
Threatened her or attacked her with a				
knife, gun, or any other weapon	1.6	0.2	0.9	1.0
Sexual violence <sup>1</sup>				
	44.0	4.0	<b>C</b> 4	
Any Devoice the force of her to have accurate	14.3	1.3	6.4	7.7
Physically forced her to have sexual intercourse with him even when she did				
	12.0	10	6.0	7.6
not want to	13.9	1.2	6.3	7.6
Forced her to perform any sexual acts she did not want to	3.5	0.5	1.6	2.0
did hot want to	3.5	0.5	1.0	2.0
Emotional violence				
Any	16.4	2.2	7.4	9.6
Said or did something to humiliate her in				
front of others	8.8	1.4	3.8	5.2
Threatened to hurt or harm her or				
someone close to her	4.4	0.7	2.1	2.8
Insulted her or made her feel bad about				
herself	13.5	1.4	6.5	8.0
Any form of physical and/or sexual violence	28.2	3.1	11.2	14.3
Any form of physical and sexual violence	9.2	0.5	3.0	3.4
Any form of emotional, physical, and/or	9.2	0.5	3.0	3.4
sexual violence	31.5	3.7	13.3	17.0
Any form of emotional, physical, and sexual	51.5	5.7	13.5	17.0
violence	6.4	0.3	2.0	2.3
VIOLETICE	0.4	0.5	2.0	2.3
Number of ever-married women	3,225	3,225	3,225	3,225

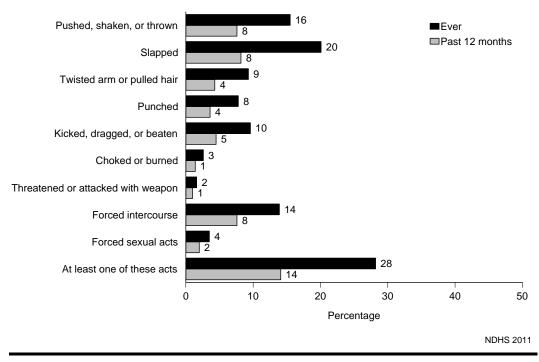
Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women.

<sup>1</sup> Does not include forced sexual initiation

The results show that 23 percent of ever-married women report ever experiencing physical violence from their husband, 14 percent report sexual violence, and 16 percent report emotional violence. Overall, more than a quarter of ever-married women (28 percent) have experienced physical and/or sexual violence from their husband, while nearly one-third have experienced (32 percent) physical, sexual, and/or emotional violence. Nine percent of ever-married women have experienced both physical and sexual violence, and 6 percent have experienced all three forms of spousal violence.

The most common form of spousal violence, experienced by 20 percent of ever-married women, is being slapped (Table 14.9 and Figure 14.1). Sixteen percent of ever-married women report having been pushed, shaken, or had something thrown at them; 14 percent have been physically forced to have sexual intercourse by their husbands even when they did not want to; and 14 percent report that their husbands have insulted them or made them feel bad about themselves.

Fourteen percent of ever-married women reported experiencing spousal physical and/or sexual violence in the past 12 months, with 11 percent having experienced violence sometimes and 3 percent having experienced it often. In general, half or more of women who have ever experienced any form of spousal violence have experienced the violence in the past 12 months.



# *Figure 14.1* Specific Forms of Physical and Sexual Violence Committed by Husbands

### 14.11 SPOUSAL VIOLENCE BY BACKGROUND CHARACTERISTICS

Table 14.10 shows the percentage of ever-married women age 15-49 who have experienced spousal emotional, physical, or sexual violence by selected background characteristics. One in three ever-married women have experienced at least one form of spousal violence (emotional, physical, or sexual).

Women's experience of each type of spousal violence increases with age and with number of children. Women who are employed for cash are more likely than other women to have ever experienced any of the three forms of violence. One possible explanation for this finding is that working women who have an independent source of income pose a challenge to the established norm of a woman being resource dependent on her husband, and hence these women may be more at risk of spousal violence.

Women who have been married more than once are most likely to have experienced one or more of the three forms of spousal violence (54 percent), followed by women who are divorced, separated, or widowed (40 percent). Among currently married women, the likelihood of having experienced each form of violence increases with marital duration. There is not much variation in women's experience of violence by urban-rural residence; however, women in the terai are more likely to experience spousal emotional, physical, or sexual violence (38 percent) than women in the other ecological zones (26-30 percent).

Women's experience of most forms of violence declines sharply with education. For example, 36 percent of women with no education have experienced spousal physical or sexual violence, compared with 13 percent of women who have an SLC and higher education. The relationship between women's experience of violence and wealth is not consistent. Most forms of violence are higher among women in the middle quintiles than among women in the higher or lower quintiles. Nonetheless, it is notable that women in the highest quintile are consistently less likely than women in any other quintile to experience any form of spousal violence.

It is often stated that violence perpetuates violence. As can be seen in Table 14.10, a family history of domestic violence is associated with a respondent's own experience of domestic violence. Among women whose fathers beat their mothers, 47 percent have experienced emotional, physical, or sexual violence, compared with 29 percent of women whose fathers did not beat their mothers.

### Table 14.10 Spousal violence by background characteristics

Percentage of ever-married women age 15-49 by whether they have ever experienced emotional, physical, or sexual violence committed by their husband, according to background characteristics, Nepal 2011

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of ever-married women
Current age						
15-19	10.1	16.1	11.8	21.4	23.4	261
20-24	15.2	20.0	12.7	25.1	26.7	634
25-29	16.4	22.9	13.6	27.4	31.2	603
30-39	17.6	24.4	15.4	29.2	33.5	974
40-49	17.9	26.7	15.5	32.4	35.8	754
Employment (past 12 months)						
Not employed	15.7	22.8	13.4	27.3	30.0	668
Employed for cash	21.7	27.5	19.5	32.6	36.7	768
Employed not for cash	14.3	21.4	12.4	26.6	29.8	1,789
Number of living children						
0	14.9	15.0	12.0	19.7	22.2	370
1-2	13.2	19.9	12.2	24.5	27.2	1,466
3-4	17.8	26.8	15.4	32.8	36.5	1,055
5+	27.6	34.4	22.3	39.0	44.3	334
Marital status and duration						
Currently married	15.8	23.0	14.0	28.0	31.1	3,084
Married only once	14.7	21.6	13.3	26.8	29.8	2,922
0-4 years	9.8	12.0	8.5	17.0	19.6	641
5-9 years	14.1	20.0	12.1	24.6	26.8	588
10+ years	16.8	25.8	15.4	31.2	34.7	1,693
Married more than once	35.4	47.4	27.5	50.3	54.2	162
Divorced/separated/widowed	29.1	26.5	20.1	32.2	39.8	140
Residence						
Urban	17.2	20.7	12.4	25.4	30.5	778
Rural	16.1	23.9	14.9	29.1	31.7	2,447
Ecological zone						
Mountain	12.1	18.0	14.0	26.5	29.6	335
Hill	15.4	17.6	11.0	22.1	26.1	1,520
Terai	18.5	30.5	18.0	35.4	37.8	1,370
Education						
No education	19.9	30.6	17.2	36.1	39.5	1,572
Primary	16.9	19.7	12.2	24.1	28.2	587
Some secondary	11.9	18.2	13.3	23.8	26.2	582
SLC and above	9.7	8.9	8.5	12.9	15.6	483
Wealth quintile				<b></b>		
Lowest	18.4	23.7	14.4	30.4	34.2	672
Second	18.5	26.8	17.2	31.3	34.8	551
Middle	17.5	30.2	16.1	35.8	38.2	624
Fourth	18.1	24.4	14.2	28.6	32.0	678
Highest	10.0	12.1	10.3	16.5	19.6	698
Respondent's father beat her						
mother	04.0	26.4	00.0	40.0	47 4	504
Yes	24.2	36.4	23.8	42.6	47.4	501
No Do pot know	15.0	20.6	12.6	25.6	28.6	2,593
Do not know	14.4	22.1	11.5	23.6	26.7	130
Total	16.4	23.1	14.3	28.2	31.5	3,225

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women. SLC = School Leaving Certificate

## 14.12 VIOLENCE BY SPOUSAL CHARACTERISTICS AND WOMEN'S EMPOWERMENT INDICATORS

Table 14.11 presents information on ever-married women age 15-49 who have experienced emotional, physical, or sexual violence committed by their husband according to spousal characteristics and empowerment indicators. The table shows that spousal violence decreases with increasing education of the husband. For example, 45 percent of women whose spouse has no education have experienced one or more forms of violence, compared with 21 percent of women whose spouse has an SLC and higher education. Spousal violence is much higher among couples in which both partners are uneducated than among couples in which both partners have the same level of education.

#### Table 14.11 Spousal violence by husband's characteristics and women's empowerment indicators

Percentage of ever-married women age 15-49 who have ever suffered emotional, physical, or sexual violence committed by their husband, according to his characteristics, marital characteristics, and empowerment indicators, Nepal 2011

	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of ever-married women
Husband's education No education Primary Some secondary SLC and above	23.5 19.1 14.4 11.0	37.7 26.7 20.1 12.7	23.5 15.2 12.8 8.4	42.3 32.5 25.5 17.5	45.2 36.7 27.8 21.2	655 730 915 897
Husband's alcohol consumption		15.0	10.1	20.4	22.0	1 501
Does not drink Drinks/never gets drunk Gets drunk sometimes Gets drunk very often	11.1 14.2 18.0 48.7	15.3 17.5 28.3 65.1	10.1 10.1 17.0 39.7	20.4 21.6 33.6 71.3	23.0 26.2 37.4 73.7	1,531 540 909 245
Spousal education difference <sup>1</sup>						
Husband better educated Wife better educated Both equally educated Neither educated	14.9 15.1 12.4 24.2	21.0 20.8 10.9 39.1	12.2 17.0 8.5 23.3	26.5 26.3 15.2 43.5	29.7 30.1 19.1 46.3	1,881 326 390 599
Spousal age difference <sup>2</sup>	10 5		10.0	07.7	00.0	000
Wife older Wife is same age Wife's 1-4 years younger Wife's 5-9 years younger Wife's 10+ years younger	12.5 22.7 14.7 16.4 16.6	20.8 26.5 22.0 24.8 21.1	13.0 21.2 14.0 13.0 13.0	27.7 33.6 27.8 28.2 25.1	29.6 35.3 30.7 31.5 29.8	232 209 1,366 934 343
Number of marital control behaviors displayed by husband <sup>3</sup>						
0 1-2 3-4 5-6	5.2 28.9 59.5 87.4	12.3 36.2 64.7 81.3	6.4 23.1 46.9 58.1	15.7 45.1 72.7 87.2	17.4 51.1 79.0 97.2	2,141 814 197 73
Number of decisions in which women participate <sup>1</sup>						
0 1-2 3	13.0 18.0 15.8	22.6 22.0 23.9	13.8 14.9 13.5	27.4 28.2 28.2	29.3 32.3 31.3	772 952 1,360
Total	15.8 16.4	23.9 23.1	13.5 14.3	28.2 28.2	31.5	3,225

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women. Total includes 28 women for whom information on husband's education is not known or is

missing. SLC = School Leaving Certificate

Excludes women for whom information on husband's education is not known

Includes only currently married women See Table 14.8 for list of marital control behaviors.

There is a very strong relationship between the experience of emotional, physical, or sexual violence and husband's alcohol use. Women whose husbands get drunk often are more than three times as likely to experience each of the three types of spousal violence as women whose husbands do not drink. Women who are the same age as their spouse are more likely (35 percent) than women who are younger or older than their spouse to report emotional, physical, or sexual violence (30-32 percent).

Spousal violence increases linearly with the number of controlling behaviors displayed by the husband. Among women whose husbands exhibit five or six types of controlling behaviors, almost all (97 percent) have experienced one or more forms of violence. In contrast, among women whose husbands display none of the six controlling behaviors, less than one-fifth have experienced any form of spousal violence (17 percent). Women's experience of violence does not vary by the number of decisions they participate in.

### 14.13 FREQUENCY OF SPOUSAL VIOLENCE

Table 14.12 shows the percent distribution of ever-married women who have experienced emotional violence and those who have experienced physical or sexual violence perpetrated by their current or most recent husband, according to how often the violence occurred in the 12 months preceding the survey. Among women who experienced spousal emotional violence in the past 12 months, 45 percent experienced it sometimes, 13 percent experienced it often, and the rest (41 percent) did not experience it at all.

Among ever-married women who have experienced physical or sexual violence, 40 percent experienced such violence sometimes in the past 12 months, and 10 percent experienced it often. Overall, 50 percent of women who have ever experienced spousal physical or sexual violence did not experience the violence in the 12 months prior to the survey.

#### Table 14.12 Frequency of spousal violence among those who report violence

Percent distribution of ever-married women age 15-49 who have ever suffered emotional violence committed by their husband by frequency of violence in the 12 months preceding the survey and percent distribution of those who have ever suffered physical or sexual violence committed by their husband by frequency of violence in the 12 months preceding the survey, according to background characteristics, Nepal 2011

	Frequ	ency of emotion	nal violence in	the past 12	2 months	Frequency of physical or sexual violence in the past 12 months				
	Often	Sometimes	Not at all	Total	Number of women	Often	Sometimes	Not at all	Total	Number of women
Current age										
15-19	(36.8)	(44.4)	(18.7)	100.0	26	(10.0)	(62.5)	(27.5)	100.0	56
20-24	13.8	`57.9 <sup>´</sup>	28.3	100.0	96	14.6	52.2	33.2	100.0	159
25-29	15.2	39.7	45.1	100.0	99	13.0	36.9	50.0	100.0	165
30-39	10.3	46.9	42.8	100.0	172	9.0	38.8	52.1	100.0	284
40-49	11.1	39.0	49.8	100.0	135	6.6	30.0	63.4	100.0	243
Employment (past 12 months)										
Not employed	16.3	39.1	44.6	100.0	105	8.7	42.9	48.5	100.0	182
	12.3	39.8	47.9		166		34.2	52.8	100.0	250
Employed for cash				100.0		13.0				
Employed not for cash	12.9	51.6	35.5	100.0	257	9.2	41.8	49.0	100.0	475
Number of living children										
0	24.2	52.5	23.3	100.0	55	12.3	56.1	31.6	100.0	73
1-2	12.5	48.6	38.9	100.0	193	9.3	42.0	48.7	100.0	360
3-4	14.5	45.9	39.6	100.0	188	11.9	36.6	51.5	100.0	347
5+	6.4	33.6	60.0	100.0	92	6.7	33.9	59.4	100.0	128
Marital status and duration										
Currently married	14.2	48.2	37.6	100.0	487	10.4	41.5	48.2	100.0	862
Married only once	11.9	48.6	39.5	100.0	430	9.5	41.0	49.5	100.0	781
0-4 years	10.2	58.3	31.4	100.0	63	9.6	57.2	33.2	100.0	109
5-9 years	12.4	56.8	30.7	100.0	83	13.1	54.1	32.7	100.0	144
10+ years	12.1	44.0	43.9	100.0	284	8.5	34.1	57.4	100.0	527
Married more than once	31.6	45.3	23.2	100.0	57	18.4	46.0	35.7	100.0	82
Divorced/separated/widowed	(3.3)	(12.3)	(84.4)	100.0	41	6.2	10.0	83.8	100.0	45
Residence										
Urban	12.8	51.6	35.6	100.0	134	10.3	49.1	40.6	100.0	198
Rural	13.6	43.3	43.1	100.0	394	10.1	37.4	52.5	100.0	709
Ecological zone										
Mountain	8.3	50.6	41.1	100.0	40	4.3	43.9	51.8	100.0	89
Hill	12.2	48.5	39.3	100.0	234	11.1	43.4	45.5	100.0	335
Terai	15.3	41.8	43.0	100.0	254	10.6	36.8	52.7	100.0	483
Education										
No education	16.3	43.4	40.2	100.0	313	10.0	38.4	51.6	100.0	565
		45.5	40.2		99	13.7	30.4 42.1	44.2		
Primary	10.8			100.0					100.0	142
Some secondary	11.7	51.3	37.0	100.0	69	9.1	41.4	49.5	100.0	138
SLC and above	(1.5)	(49.8)	(48.7)	100.0	47	6.1	45.1	48.9	100.0	62
Wealth quintile										
Lowest	12.1	50.4	37.4	100.0	124	11.1	46.3	42.7	100.0	204
Second	14.0	42.6	43.4	100.0	102	15.4	31.2	53.4	100.0	172
Middle	19.9	38.4	41.8	100.0	109	10.9	37.6	51.4	100.0	223
Fourth	8.4	45.1	46.5	100.0	123	5.0	42.6	52.4	100.0	192
Highest	13.3	52.2	34.5	100.0	70	7.8	41.6	50.7	100.0	115
•										
Total	13.4	45.4	41.2	100.0	528	10.2	39.9	49.9	100.0	907

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women. Figures in parentheses are based on 25-49 unweighted cases. SLC = School Leaving Certificate

Women's experience of emotional violence and physical or sexual violence in the past 12 months declines with age and with number of children. Further, although women employed for cash are more likely than women in the other employment categories to have ever experienced physical or sexual violence, they are less likely to have experienced it in the past 12 months. Urban women are more likely than rural women to have experienced emotional and physical or sexual violence in the past 12 months. Women in the terai who have ever experienced emotional violence are more likely than women in the other ecological zones to have experienced the violence often in the past 12 months; notably, however, experience of emotional violence in the past 12 months does not vary much by zone. Experience of physical or sexual violence in the past 12 months is lower in the hill zone than in the other zones. Frequency of emotional and physical or sexual spousal violence in the past 12 months among those who have ever experienced such violence does not vary consistently with education and wealth.

### 14.14 ONSET OF SPOUSAL VIOLENCE

To obtain information on the onset of marital violence, the 2011 NDHS asked ever-married women how long after marriage spousal violence first began, if ever. Table 14.13 shows the interval between marriage and the first episode of physical or sexual violence by the most recent husband. Seventy-two percent of evermarried women have never experienced spousal physical or sexual violence by their current or most recent husband, 19 percent experienced violence in the first one to two years of marriage, and another 6 percent experienced it within the first three to five years of marriage. These data clearly suggest that, for the majority of women who have experienced spousal physical or sexual violence, the violence began early in their marriage, within one or two years.

### Table 14.13 Onset of marital violence

Percent distribution of ever-married women by number of years between marriage and first experience of physical or sexual violence by their husband, if ever, according to marital status and duration, Nepal 2011

		Years between marriage <sup>1</sup> and first experience of violence								
Marital status and duration	Experienced no violence	Before marriage	<1 year	1-2 years	3-5 years	6-9 years	10+ years	Don't know/ missing <sup>1</sup>	Total	Number of women
Currently married	71.7	0.1	10.0	8.6	5.4	2.1	1.6	0.5	100.0	3,084
Married only once	72.9	0.1	9.5	8.0	5.2	2.2	1.6	0.5	100.0	2,922
<1 year	89.7	0.0	10.1	na	na	na	na	0.2	100.0	139
1-2 years	84.1	0.7	12.2	3.0	na	na	na	0.0	100.0	259
3-5 years	76.2	0.0	10.8	11.1	1.5	na	na	0.5	100.0	377
6-9 years	75.8	0.0	8.1	8.7	6.6	0.6	na	0.2	100.0	454
10+ years	68.4	0.0	9.1	8.5	6.9	3.7	2.7	0.7	100.0	1,693
Married more than once	49.7	0.0	18.5	19.4	9.6	0.4	1.9	0.4	100.0	162
Divorced/separated/widowed	67.3	0.0	18.1	5.2	6.3	1.1	2.0	0.0	100.0	140
Total	71.5	0.1	10.3	8.4	5.5	2.1	1.6	0.5	100.0	3,225

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women. <sup>1</sup> Includes women for whom the timing of the first experience of violence and duration of marriage are inconsistent na = Not applicable

### 14.15 PHYSICAL CONSEQUENCES OF SPOUSAL VIOLENCE

In the 2011 NDHS, ever-married women age 15-49 were asked whether they had sustained some form of injury as a result of physical or sexual violence inflicted by their husband. More than one-third of women (37 percent) who reported ever having experienced spousal physical or sexual violence suffered cuts, bruises, or aches; 10 percent had eye injuries, sprains, dislocations, or burns; and 10 percent had deep wounds, broken bones, broken teeth, or other serious injuries (Table 14.14). Overall, 38 percent of women who had ever experienced spousal physical or sexual violence suffered one or more of these injuries. The prevalence of all forms of injuries was higher among women who had experienced violence in the past 12 months than among women who had ever experienced spousal violence.

#### Table 14.14 Injuries to women due to spousal violence

Percentage of ever-married women age 15-49 who have experienced specific types of spousal violence by types of injuries resulting from what their husband did to them, according to the type of violence and whether they have experienced the violence ever and in the 12 months preceding the survey, Nepal 2011

Type of violence experienced	Cuts, bruises, or aches	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever-married women
Experienced physical violence <sup>1</sup>					
Ever <sup>2</sup>	44.1	12.3	11.6	44.9	746
In the past 12 months	52.8	16.9	14.5	53.5	337
Experienced sexual violence					
Ever <sup>2</sup>	32.7	11.5	11.0	33.0	460
In the past 12 months	38.6	13.9	13.6	38.9	250
Experienced physical or sexual violence <sup>1</sup>					
Ever <sup>2</sup>	36.8	10.1	9.7	37.5	909
In the past 12 months	42.3	13.2	11.7	42.9	454

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women.

<sup>1</sup> Excludes women who experienced physical violence only during pregnancy

<sup>2</sup> Includes in the past 12 months

### 14.16 VIOLENCE BY WOMEN AGAINST THEIR HUSBANDS

In cases of domestic violence, either person (husband or wife) can be the perpetrator of violence. In the 2011 NDHS, ever-married women were asked about instances when they were the instigator of spousal violence. Specifically, each ever-married woman was asked whether she had ever tried to initiate physical violence against her husband when he was not already hitting or beating her. Table 14.15 shows the percentage of ever-married women age 15-49 who reported initiating physical violence against their husbands ever and in the 12 months prior to the survey, by background characteristics. Overall, 3 percent of ever-married women reported that they had initiated physical violence against their husbands, and 1 percent had done so in the past 12 months.

Women who have been physically abused by their husband are more likely to have initiated spousal physical abuse than women who have never been abused (8 percent versus 2 percent). Women's use of violence against their husbands increases somewhat with age and is higher among women who earn cash, women who are older than their husbands, urban women, and women in the terai than among most other women. Notably, 13 percent of women whose husbands get drunk very often have initiated violence against their husbands, much higher than any other category of women. The proportion of women who have initiated spousal violence varies inconsistently with the woman's own education, her husband's education, and wealth.

### Table 14.15 Violence by women against their spouse

Percentage of ever-married women age 15-49 who have committed physical violence against their husband when he was not already beating or physically hurting them, ever and in the past 12 months, according to women's own experience of spousal violence and their own and husband's characteristics, Nepal 2011

	physical viole	no have committed ence against their isband	Number of
Background characteristic	Ever	In the past 12 months	ever-married women
Woman's experience of			
spousal physical violence	0.0		740
Ever In the past 12 months	8.2 9.7	4.1 8.3	746 344
Never	1.6	0.4	2,479
		0.1	2,0
Current age 15-19	0.4	0.4	261
20-24	2.9	1.8	634
25-29	3.3	1.4	603
30-39	4.0	1.4	974
40-49	3.1	0.9	754
Employment (past 12 months)			
Not employed	1.9	0.9	668
Employed for cash Employed not for cash	6.4 2.2	2.8 0.8	768 1,789
	2.2	0.8	1,709
Number of living children	2.1	1.7	270
0 1-2	2.1 3.0	1.7 0.9	370 1,466
3-4	3.6	1.9	1,055
5+	3.1	0.7	334
Residence			
Urban	4.0	2.3	778
Rural	2.9	1.0	2,447
Ecological zone			
Mountain	1.8	0.5	335
Hill	2.6	1.2	1,520
Terai	4.1	1.5	1,370
Wealth quintile			
Lowest	2.3	1.0	672
Second	2.4	0.6	551
Middle	3.6	1.2	624
Fourth	2.8 4.3	1.3 2.1	678 698
Highest	4.5	2.1	090
Marital status and duration			
Currently married	3.1	1.3	3,084
Married only once	2.9	1.2	2,922
0-4 years	1.9	1.3	641
5-9 years	2.3 3.5	1.3 1.0	588 1,693
10+ years Married more than once	7.3	4.3	162
Divorced/separated/widowed	3.6	0.5	140
Education			
No education	3.2	1.0	1,572
Primary	3.5	2.0	587
Some secondary	3.9	2.1	582
SLC and above	1.5	0.4	483
Husband's education			
No education	3.9	1.3	655
Primary	3.6	1.5	730
Some secondary	2.5	0.8	915
SLC and above	2.9	1.7	897
Husband's alcohol			
consumption	4 5	0.4	1 504
Does not drink Drinks/never gets drunk	1.5 2.4	0.4 0.6	1,531 540
Gets drunk sometimes	2.4 3.6	0.6	540 909
Gets drunk very often	13.2	6.4	245
Spousal age difference <sup>1</sup>			
Wife older	6.7	1.9	232
Wife is same age	3.3	1.6	209
Wife's 1-4 years younger	2.3	1.0	1,366
Wife's 5-9 years younger	3.0	1.9	934
Wife's 10+ years younger	4.0	0.5	343
Spousal education difference <sup>2</sup>			
Husband better educated	3.2	1.4	1,881
Wife better educated	4.9	2.5	326
Both equally educated	0.6	0.3	390
Neither educated	3.5	1.0	599
Total	3.1	1.3	3,225

Note: Husband refers to the current husband for currently married women and the most recent husband for divorced, separated, or widowed women. Total includes 28 women for whom information on husband's education is not known or is missing. SLC = School Leaving Certificate <sup>1</sup> Includes only currently married women <sup>2</sup> Excludes women for whom information on husband's education is not known

### 14.17 HELP-SEEKING BEHAVIOR BY WOMEN WHO EXPERIENCE VIOLENCE

This final section of this chapter describes help-seeking behavior by women age 15-49 who have ever experienced physical or sexual violence. Table 14.16 shows the percent distribution of women who have ever experienced physical or sexual violence committed by anyone, according to whether they ever sought help to stop the violence and, among those who did not seek help, whether or not they told anyone about the violence. Overall, three in four women (77 percent) who have experienced any type of physical or sexual violence from anyone have never sought help, including 64 percent who have never told anyone about the violence. Thus, in Nepal only one in four women who have ever experienced any form of physical or sexual violence have sought help from any source.

#### Table 14.16 Help seeking to stop violence

Percent distribution of women age 15-49 who have ever experienced physical or sexual violence by whether they have told anyone about the violence and whether they have ever sought help from any source to stop the violence, according to type of violence and background characteristics, Nepal 2011

	Never so	ught help			
Background	Never told	Told	<ul> <li>Have sought help from any</li> </ul>		Number of
characteristic	anyone	someone	source	Total	women
Type of violence experienced					
Physical only	65.5	11.8	22.7	100.0	574
Sexual only	84.7	8.3	7.0	100.0	188
Both physical and sexual	48.5	19.5	32.1	100.0	329
Current age					
15-19	68.9	8.4	22.8	100.0	122
20-24	63.1	15.7	21.2	100.0	180
25-29	64.9	17.6	17.5	100.0	189
30-39	63.1	10.4	26.5	100.0	332
40-49	61.6	15.3	23.0	100.0	268
Employment (past 12 months)					
Not employed	64.6	11.5	23.9	100.0	227
Employed for cash	56.8 67.2	17.6 12.0	25.6 20.8	100.0	309
Employed not for cash	07.2	12.0	20.0	100.0	555
Number of living children	50.0				
0	56.9	13.8	29.3	100.0	154
1-2 3-4	63.6 67.8	15.2 9.4	21.2 22.8	100.0 100.0	412 384
5+	60.4	9.4 19.2	22.8	100.0	140
	00.4	10.2	20.4	100.0	140
Marital status and duration	(60.4)	(15.0)	(24.4)	100.0	60
Never married Currently married	(60.4) 65.0	(15.2) 13.4	(24.4) 21.6	100.0 100.0	69 974
Married only once	65.9	13.4	20.7	100.0	879
0-4 years	71.6	11.7	16.8	100.0	129
5-9 years	71.4	14.8	13.9	100.0	161
10+ years	63.1	13.4	23.5	100.0	589
Married more than once	57.3	13.3	29.4	100.0	94
Divorced/separated/widowed	41.5	13.2	45.3	100.0	49
Residence					
Urban	60.6	12.9	26.4	100.0	256
Rural	64.6	13.7	21.7	100.0	836
Ecological zone					
Mountain	73.7	10.5	15.8	100.0	111
Hill	58.7	14.3	26.9	100.0	431
Terai	65.6	13.4	21.0	100.0	549
Education					
No education	67.5	13.8	18.7	100.0	626
Primary	57.6	14.2	28.2	100.0	172
Some secondary	64.7	12.5	22.8	100.0	187
SLC and above	49.4	12.6	38.1	100.0	106
Wealth quintile					
Lowest	68.2	12.6	19.2	100.0	236
Second	64.4	11.3	24.3	100.0	206
Middle Fourth	68.6 57.3	11.0 15.4	20.4 27.3	100.0 100.0	250 242
Highest	57.5	15.4	27.5	100.0	157
Total	63.7	13.5	22.8	100.0	1,091

Note: Women who experienced forced sexual initiation but no other forms of physical or sexual violence were not asked the questions about seeking help and are not included. Figures in parentheses are based on 25-49 unweighted cases.

SLC = School Leaving Certificate

Women who have experienced only sexual violence are less likely (7 percent) than women who have experienced physical violence (23 percent) to seek help; help seeking is most common among women who have experienced both physical and sexual violence (32 percent). Help-seeking behavior varies inconsistently with age; however, women with no children are more likely than women with children to have sought help. A much higher proportion of divorced, separated, or widowed women (45 percent) than never-married and currently married women (22-24 percent) have ever sought help.

Help seeking is higher among urban than rural women and higher among women in the hill zone (27 percent) than among women in the terai (21 percent) and mountain zone (16 percent). Highly educated women are more likely than less educated women to seek help if they are abused; however, help seeking does not vary consistently with wealth.

Table 14.17 shows the percentage of abused women who reported seeking help, by sources from which help was sought. The most common sources of help are the woman's own family or her friends and neighbors: 52 percent of abused women who sought help did so from their own family, and 53 percent did so from their friends and neighbors. In-laws are a source for 7 percent of abused women seeking help. Few women seek help from the police (4 percent), doctor/medical personnel (3 percent), or social service organizations (3 percent). Thus, despite the efforts of the Ministry of Women, Children, and Social Welfare and nongovernmental organizations to cater to victims of violence, the data suggest that few abused women are accessing these services.

#### Table 14.17 Sources from where help was sought

Percentage of women age 15-49 who have ever experienced only physical or both physical and sexual violence and sought help according to source from which help was sought, by type of violence experienced. Nepal 2011

	Type of	violence	
Source of help	Physical only	Both physical and sexual	Physical or sexual
Own family	50.7	52.1	51.9
In-laws	9.7	5.0	7.2
Husband/boyfriend	0.9	0.9	0.8
Friend/neighbor	45.7	61.2	52.9
Religious leader	0.0	0.4	0.2
Doctor/medical personnel	5.4	0.4	3.0
Police	5.7	2.8	4.2
Lawyer	0.5	1.2	1.5
Social service organization	1.5	4.1	2.5
Other	7.3	8.0	7.2
Number of women	130	106	249

Note: Women who experienced forced sexual initiation but no other forms of physical or sexual violence were not asked the questions about seeking help and are not included. Total includes 13 women who experienced only sexual violence not shown separately.

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### A.1 INTRODUCTION

The 2011 Nepal Demographic and Health Survey (NDHS) is the fourth DHS survey following the 1996 Nepal Family Health Survey, the 2001 Nepal Demographic and Health Survey, and the 2006 Nepal Demographic and Health Survey. The sample was designed to yield representative information for most indicators for the country as a whole, for urban and rural areas, for the three ecological zones (mountain, hill, and terai), and for each of the 13 domains obtained by cross-classifying the three ecological zones and the five development regions (Eastern, Central, Western, Mid-western, and Far-western). Due to the small population size in the Western, Mid-western and Far-western mountain subregions, these were combined to represent a single domain.

The primary objective of the 2011 NDHS was to provide estimates with an acceptable level of precision for important population characteristics such as fertility, contraceptive prevalence, and selected health indicators and infant mortality. The survey was designed to target a sample of 11,095 households and it was expected to interview a total of 13,200 women age 15-49 in the sample households and all men age 15-49 in a sub-sample of one in every two households selected for the woman's interview. Women and men were considered eligible for interview if they were usual members of the household or if they stayed in the household the night before the survey. Height and weight measurements and anemia testing were conducted for all women eligible for the interview in the subsample of households selected for the men's survey. Additionally, height and weight were measured for all children age under five years and anemia testing was conducted for children 6-59 months in the households selected for the men's survey. A domestic violence module was administered to only one selected woman in the same subsample of households selected for the men's survey.

### A.2 SAMPLING FRAME

Nepal is divided into seventy-five districts and each district is sub-divided into smaller administrative units. For the census purpose each district, as well as each of the other administrative units, were sub-divided into wards in the rural areas and sub-wards in urban areas. Thus, an enumeration area (EA) is defined as a ward in the rural areas and a sub-ward in the urban areas. The last population census before the 2011 NDHS fieldwork was carried out by the Central Bureau of Statistics in 2001. The distribution of EAs and population is shown in Tables A.1 and A.2. Although the next census was planned for 2011, the sampling frame from which to draw the sample for the 2011 NDHS was not going to be available in time for the fielding of the 2011 NDHS. As such the survey had to rely on the 2001 Census for its sampling frame. However, the long gap between the 2001 Census and the fielding of the 2011 NDHS, necessitated an updating of the 2001 sampling frame to take into account not only population growth, but also mass internal and external migration due to the decade long political conflict in the country. Therefore, it was necessary to conduct a partial updating of the 2001 census frame through a quick count of dwellings at the first level by taking into consideration a large sample (about five times larger than the sample required for each of the 13 domains). This sample at the first level was selected with equal probability. The results of the quick count of dwellings served as the actual sample frame for the 2011 NDHS sample design. The sample for the 2011 NDHS is selected from this updated frame with probability proportional to the number of updated dwellings. Weights were calculated for each stage of the selection probability and the final weight is the product of each of the compound weights.

#### Table A.1 Enumeration areas

Distribution of the enumeration areas in the sampling frame of
the 2001 Census, by region and residence, Nepal

	Number of enumeration areas in frame			
Region	Urban	Rural	Total	
Eastern mountain	13	1,053	1,066	
Central mountain	13	1,244	1,257	
Western mountain	0	2,043	2,043	
Eastern hill	35	3,554	3,589	
Central hill	183	4,163	4,346	
Western hill	105	5,543	5,648	
Mid-western hill	21	2,569	2,590	
Far-western hill	38	1,863	1,901	
Eastern terai	134	3,382	3,516	
Central terai	112	5,292	5,404	
Western terai	55	1,971	2,026	
Mid-western terai	53	1,043	1,096	
Far-western terai	42	547	589	
Nepal	804	34,267	35,071	

#### Table A.2 Population

Distribution of the census population in the sampling frame by region and residence, Nepal

		Population in fram	Percent of total		
Region	Urban	Rural	Total	population	Percent urban
Eastern mountain	21,789	378,739	400,528	1.8	5.4
Central mountain	21,916	490,462	512,378	2.3	4.3
Western mountain	0	586,041	586,041	2.6	0.0
Eastern hill	92,196	1,546,269	1,638,465	7.2	5.6
Central hill	1,171,385	2,340,464	3,511,849	15.5	33.4
Western hill	343,073	2,442,622	2,785,695	12.3	12.3
Mid-western hill	50,827	1,245,839	1,296,666	5.7	3.9
Far-western hill	58,796	737,591	796,387	3.5	7.4
Eastern terai	510,625	2,726,783	3,237,408	14.3	15.8
Central terai	411,963	3,513,962	3,925,925	17.3	10.5
Western terai	177,753	1,570,426	1,748,179	7.7	10.2
Mid-western terai	180,548	1,047,116	1,227,664	5.4	14.7
Far-western terai	187,008	804,554	991,562	4.4	18.9
Nepal	3,227,879	19,430,868	22,658,747	100.0	14.3

### **Domains**

The cross classification of the three zones by the five development regions yields 15 possible domains for the 2011 NDHS. However, the Western, Mid-western, and Far-western mountain domains were combined to form a single domain because of their small population size, resulting in a total of 13 domains. In order to provide an adequate sample to calculate most of the key indicators (with the exception of mortality) with acceptable level of precision, a minimum of about 600 households were selected for each domain.

The EAs were stratified by urban and rural areas within each domain from the 2001 census frame. The 2011 NDHS used the same urban-rural stratification as in the 2001 census frame.

### A.3 SAMPLE DESIGN AND IMPLEMENTATION

The EAs in each of the 13 domains were not allocated proportional to their total population due to the need to provide estimates with acceptable levels of statistical precision for each domain, and for urban and rural domains of the country as a whole. The vast majority (about 90 percent) of the population in Nepal resides in rural areas. In order to provide for national urban estimates, urban areas of the country were oversampled. Table A.3 shows the sample distribution by the 13 domains and Table A.4 shows the expected number of completed interviews with women and men age 15-49 by domain.

#### Table A.3 Sample allocation of clusters and households

Sample allocation of clusters and households by region, according to residence, Nepal, 2011

	Allocation of clusters			Allocation of households		
Region	Urban	Rural	Total	Urban	Rural	Total
Eastern mountain	3	14	17	105	560	665
Central mountain	2	15	17	70	600	670
Western mountain	0	14	14	0	560	560
Eastern hill	4	19	23	140	760	900
Central hill	16	14	30	560	560	1,120
Western hill	11	16	27	385	640	1,025
Mid-western hill	3	18	21	105	720	825
Far-western hill	4	13	17	140	520	660
Eastern terai	14	15	29	490	600	1,090
Central terai	9	18	27	315	720	1,035
Western terai	8	17	25	280	680	960
Mid-western terai	10	13	23	350	520	870
Far-western terai	11	8	19	385	320	705
Nepal	95	194	289	3,325	7,760	11,085

Table A.4 Sample allocation of expected number of completed interviews

Sample allocation of expected number of completed interviews with women and men by region, according to residence, Nepal, 2011

Region	Women 15-49			Men 15-49		
	Urban	Rural	Total	Urban	Rural	Total
Eastern mountain	126	685	811	49	235	284
Central mountain	84	734	818	33	252	285
Western mountain	0	685	685	0	235	235
Eastern hill	168	930	1098	65	319	384
Central hill	671	685	1357	262	235	497
Western hill	462	783	1245	180	269	449
Mid-western hill	126	881	1007	49	303	352
Far-western hill	168	637	804	65	219	284
Eastern terai	587	734	1322	229	252	481
Central terai	378	881	1259	147	303	450
Western terai	336	832	1168	131	286	417
Mid-western terai	420	637	1056	163	219	382
Far-western terai	462	392	853	180	134	314
Nepal	3,986	9,499	13,485	1,553	3,261	4,814

Results from the 2006 NDHS showed an average of 1.199 completed women per selected household in the urban area, and 1.224 in the rural area. With a targeted sample of 11,085 selected households in the 2011 NDHS, it was expected that interviews would be completed for a total of 13,485 women, assuming a similar response rate as in the 2006 NDHS. In order to achieve the target sample size in each domain, the number of EAs allocated to the urban and rural areas of each domain was roughly in the ratio of 1 urban to 2 rural EAs to provide for 95 urban and 194 rural EAs and a total of 289 EAs for the country (Table A.3). In order to achieve the target sample size by the allocated EAs, 35 households were randomly selected in each urban EA and 40 households in each rural EA.

### **Sample Selection**

Following the quick count, the 2011 NDHS sample was selected using a stratified two-stage cluster design. In each domain (region), the number of allocated EAs was selected with probability proportional to size (with household size updated from the quick count). The selection was done using the following formula:

$$P_{1i} = (b * M_i) / (\Sigma M_i)$$

where

- b: is the number of clusters in the DHS sample for a given domain by urban (or rural) stratification,
- M<sub>i</sub>: is the number of households of the i<sup>th</sup> EA derived from the quick count sample frame update,
- $\Sigma$  M<sub>i</sub>: is the number of households in the given domain, and urban (or rural) stratification derived from the quick count.

If a selected EA is large, say more than 300 households, a segmentation process was recommended to be done, with only one segment chosen with equal probability, among all segments and a complete household listing process implemented in the selected segment. For all other selected EAs a complete household listing operation was carried out and households were selected to achieve a self-weighted sampling fraction within each EA.

If s2i is the number of segments in each EA, then the sampling probability for the selected segment is given

as

 $P_{1i} * (1/s_{2i})$ 

Finally for the i<sup>th</sup> cluster, if  $c_i$  is the number of households selected out of the total households (L<sub>i</sub>)-found in the listing process, then the overall sampling fraction in the EA can be expressed as

 $f = P_{1i} * (1/s_{2i}) * (c_i / L_i)$ 

where the number of households in the  $i^{th}$  cluster is either  $c_i$  (35 for urban, or 40 for rural), with the household selection interval for the i<sup>th</sup> cluster given as

$$\begin{split} I_i &= L_i \; / \; c_i \\ I_i &= (P_{1i} \; * \; (1/(s_{2i} \; )) \; / \; f_i \end{split}$$

#### **Sample Implementation**

Tables A.5 and A.6 present response rates, for women and men, respectively, by urban and rural areas, and by the three ecological zones. The male subsample constituted one in two of the households selected for the woman's sample.

#### Table A.5 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Nepal 2011

	Resi	dence	E	Ecological zon	е	
Result	Urban	Rural	Mountain	Hill	Terai	Total
Selected households						
Completed (C)	94.5	95.7	96.1	94.5	95.9	95.4
Household present but no competent						
respondent at home (HP)	0.2	0.2	0.3	0.1	0.2	0.2
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.8	0.2	0.0	0.6	0.3	0.4
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	1.5	0.8	0.5	1.2	1.0	1.0
Dwelling vacant/address not a dwelling (DV)	2.5	2.7	2.8	3.2	2.1	2.7
Dwelling destroy (DD)	0.3	0.1	0.1	0.1	0.3	0.2
Other (Ö)	0.2	0.3	0.3	0.3	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	3,331	8,022	1,981	4,647	4,725	11,353
Household response rate (HRR) <sup>1</sup>	98.9	99.6	99.7	99.3	99.5	99.4
Eligible women						
Completed (EWC)	96.8	98.6	99.1	97.7	98.2	98.1
Not at home (EWNH)	1.0	0.6	0.3	0.8	0.7	0.7
Postponed (EWP)	0.2	0.0	0.0	0.1	0.0	0.1
Refused (EWR)	1.3	0.1	0.0	0.7	0.4	0.5
Partly completed (EWPC)	0.2	0.0	0.0	0.1	0.1	0.1
Incapacitated (EWI)	0.3	0.5	0.6	0.4	0.5	0.5
Other (EWO)	0.1	0.1	0.0	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,822	9,096	2,052	5,093	5,773	12,918
Eligible women response rate (EWRR) <sup>2</sup>	96.8	98.6	99.1	97.7	98.2	98.1
Overall women response rate (ORR) <sup>3</sup>	95.8	98.3	98.8	97.0	97.6	97.6

<sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$C + HP + P + R + DNF$$

<sup>2</sup> The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).
<sup>3</sup> The overall women response rate (OWRR) is calculated as:

OWRR = HRR \* EWRR / 100

#### Table A.6 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall men response rates, according to urban-rural residence and region (unweighted), Nepal 2011

Resi	dence	E	cological zon	e	
Urban	Rural	Mountain	Hill	Terai	Total
93.6	95.1	95.0	93.6	95.6	94.7
0.1	0.2	0.4	0.1	0.1	0.2
0.1	0.0	0.0	0.0	0.0	0.0
0.9	0.3	0.0	0.7	0.4	0.5
2.1	0.8	0.2	1.6	1.2	1.2
2.7	3.2	3.7	3.6	2.2	3.0
0.3	0.1	0.2	0.0	0.3	0.2
0.2	0.4	0.5	0.3	0.3	0.3
100.0	100.0	100.0	100.0	100.0	100.0
1,616	3,973	977	2,288	2,324	5,589
98.9	99.5	99.6	99.1	99.5	99.3
93.1	96.4	98.4	93.8	95.6	95.3
3.5	2.1	0.3	3.4	2.6	2.6
2.0	0.3	0.2	1.5	0.6	0.9
0.1	0.1	0.0	0.1	0.1	0.1
0.9	0.8	0.5	0.9	0.8	0.8
0.3	0.3	0.6	0.2	0.2	0.3
100.0	100.0	100.0	100.0	100.0	100.0
1,451	2,872	628	1,686	2,009	4,323
93.1	96.4	98.4	93.8	95.6	95.3
	Urban 93.6 0.1 0.1 0.9 2.1 2.7 0.3 0.2 100.0 1,616 98.9 93.1 3.5 2.0 0.1 0.9 0.3 100.0 1,451	93.6         95.1           0.1         0.2           0.1         0.0           0.9         0.3           2.1         0.8           2.7         3.2           0.3         0.1           0.2         0.4           100.0         100.0           1,616         3,973           98.9         99.5           93.1         96.4           3.5         2.1           2.0         0.3           0.1         0.1           0.9         0.8           0.3         0.3           100.0         100.0           1,451         2,872	Urban         Rural         Mountain           93.6         95.1         95.0           0.1         0.2         0.4           0.1         0.0         0.0           0.9         0.3         0.0           2.1         0.8         0.2           2.7         3.2         3.7           0.3         0.1         0.2           0.2         0.4         0.5           100.0         100.0         100.0           1,616         3,973         977           98.9         99.5         99.6           93.1         96.4         98.4           3.5         2.1         0.3           0.1         0.1         0.0           0.9         0.8         0.5           0.3         0.3         0.6           100.0         100.0         100.0           1,451         2,872         628	Urban         Rural         Mountain         Hill           93.6         95.1         95.0         93.6           0.1         0.2         0.4         0.1           0.1         0.2         0.4         0.1           0.1         0.0         0.0         0.0           0.9         0.3         0.0         0.7           2.1         0.8         0.2         1.6           2.7         3.2         3.7         3.6           0.3         0.1         0.2         0.0           0.2         0.4         0.5         0.3           100.0         100.0         100.0         100.0           1,616         3,973         977         2,288           98.9         99.5         99.6         99.1           93.1         96.4         98.4         93.8           3.5         2.1         0.3         3.4           2.0         0.3         0.2         1.5           0.1         0.1         0.0         0.1           0.9         0.8         0.5         0.9           0.3         0.3         0.6         0.2           100.0         100.0 </td <td>Urban         Rural         Mountain         Hill         Terai           93.6         95.1         95.0         93.6         95.6           0.1         0.2         0.4         0.1         0.1           0.1         0.2         0.4         0.1         0.1           0.1         0.0         0.0         0.0         0.0           0.9         0.3         0.0         0.7         0.4           2.1         0.8         0.2         1.6         1.2           2.7         3.2         3.7         3.6         2.2           0.3         0.1         0.2         0.0         0.3           0.2         0.4         0.5         0.3         0.3           100.0         100.0         100.0         100.0         100.0           1,616         3,973         977         2,288         2,324           98.9         99.5         99.6         99.1         99.5           93.1         96.4         98.4         93.8         95.6           3.5         2.1         0.3         3.4         2.6           2.0         0.3         0.2         1.5         0.6</td>	Urban         Rural         Mountain         Hill         Terai           93.6         95.1         95.0         93.6         95.6           0.1         0.2         0.4         0.1         0.1           0.1         0.2         0.4         0.1         0.1           0.1         0.0         0.0         0.0         0.0           0.9         0.3         0.0         0.7         0.4           2.1         0.8         0.2         1.6         1.2           2.7         3.2         3.7         3.6         2.2           0.3         0.1         0.2         0.0         0.3           0.2         0.4         0.5         0.3         0.3           100.0         100.0         100.0         100.0         100.0           1,616         3,973         977         2,288         2,324           98.9         99.5         99.6         99.1         99.5           93.1         96.4         98.4         93.8         95.6           3.5         2.1         0.3         3.4         2.6           2.0         0.3         0.2         1.5         0.6

<sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

100 \* C

$$C + HP + P + R + DNF$$

<sup>2</sup> The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC)

<sup>3</sup> The overall men response rate (OMRR) is calculated as:

OMRR = HRR \* EMRR / 100

#### A.4 SAMPLE PROBABILITIES AND SAMPLE WEIGHTS

Sampling weights are adjustment factors applied to adjust for differences in the probability of selection and interview between cases in a sample, either due to design or happenstance. In the 2011 NDHS the sample is selected with unequal probability to expand the number of cases available (and hence reduce sampling variability) for certain areas or subgroups for which statistics are needed. In this case, weights need to be applied when tabulations are made of statistics to produce the proper representation. When weights are calculated because of sample design, corrections for differential response rates are also made.

There are two main sampling weights in the 2011 NDHS: household weights and individual weights. The household weight for a particular household is the inverse of its household selection probability multiplied by the inverse of the household response rate of its household response rate group. The individual weight of a respondent's case is the household weight multiplied by the inverse of the individual response rate of their individual response rate group. There are additional sampling weights for sample subsets, such as domestic violence. The initial weights are standardized by dividing each weight by the average of the initial weights (equal to the sum of the initial weight divided by the sum of the number of cases) so that the sum of the standardized weights equals the sum of the cases over the entire sample. The standardization is done separately for each weight.

Due to the non-proportional allocation of the sample to different domains and to their urban and rural areas and the possible differences in response rates, sampling weights are required for any analysis using the 2011 NDHS data to ensure the actual representativeness of the survey results at the national level as well as at the urban-rural level, ecological zone level, development regions level, and the thirteen subregions. Since the 2011 NDHS sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster. We use the following notations:

 $P_{1hi}$ : first-stage sampling probability of the  $i^{th}$  cluster in stratum h

 $P_{2hi}$ : second -stage sampling probability within the  $i^{th}$  cluster (households)

Let  $a_h$  be the number of EAs selected in stratum h,  $M_{hi}$  the number of households according to the sampling frame in the  $i^{th}$  EA, and  $\sum M_{hi}$  the total number of households in the stratum. The probability of selecting the  $i^{th}$  EA in the NDHS 2011 sample is calculated as follows:

$$\frac{a_h M_{hi}}{\sum M_{hi}}$$

Let  $b_{hi}$  be the proportion of households in the selected cluster compared to the total number of households in EA *i* in stratum *h* if the EA is segmented, otherwise  $b_{hi} = 1$ . Then the probability of selecting cluster *i* in the sample is:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let  $L_{hi}$  be the number of households listed in the household listing operation in cluster *i* in stratum *h*, let  $g_{hi}$  be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the production of the two stages selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The sampling weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1/P_{hi}$$

A spreadsheet containing all sampling parameters and selection probabilities was prepared to facilitate the calculation of the design weight. Design weight was adjusted for household non-response and as well as for individual non-response to get the sampling weights for households, for women, and for men, respectively. The differences of the household sampling weight and the individual sampling weights are introduced by individual non-response. The final sampling weights were normalized in order to give the total number of unweighted cases equal to the total number of weighted cases at national level, for both household weight and individual weight, respectively. The normalized weights are relative weights which are valid for estimating means, proportions and ratios, but not valid for estimating population totals and for pooled data. No special weights were calculated for data collected on children, since all children under five in the selected households were eligible for the survey. Therefore, for child indicators tabulated at the household level, household weights were used; for child indicators tabulated at the individual level, the mother's weight was used.

The estimates from a sample survey are affected by two types of errors: non-sampling errors and sampling errors. Non-sampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2011 Nepal Demographic and Health Survey (2011 NDHS) to minimize this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2011 NDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2011 NDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2011 NDHS is ISSA Sampling Error Module, a program developed by MEASURE DHS. This program used the Taylor linearization method of variance estimation for survey estimates that are means, proportions or ratios. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, r = y/x, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^{2}(r) = var(r) = \frac{1-f}{x^{2}} \sum_{h=1}^{H} \left[ \frac{m_{h}}{m_{h}-1} \left( \sum_{i=1}^{m_{h}} z_{hi}^{2} - \frac{z_{h}^{2}}{m_{h}} \right) \right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}$$
, and  $z_h = y_h - rx_h$ 

where h represents the stratum which varies from 1 to H,

- is the total number of clusters selected in the  $h^{\text{th}}$  stratum,  $m_h$ is the sum of the weighted values of variable y in the  $i^{th}$  cluster in the  $h^{th}$  stratum,
- $y_{hi}$
- is the sum of the weighted number of cases in the  $i^{th}$  cluster in the  $h^{th}$  stratum, and  $x_{hi}$
- fis the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2011 NDHS, there were 289 non-empty clusters. Hence, 289 replications were created. The variance of a rate r is calculated as follows:

$$SE^{2}(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_{i} - r)^{2}$$

in which

$$r_i = kr - (k - 1)r_{(i)}$$

where r

is the estimate computed from the full sample of 289 clusters,

 $r_{(i)}$  is the estimate computed from the reduced sample of 288 clusters ( $i^{th}$  cluster excluded), and

*k* is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also calculated. The design effect is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. Relative standard errors and confidence limits for the estimates are also calculated.

Sampling errors for the 2011 NDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, three ecological zones, and for five development regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 through B.12 present the value of the statistic (R), its standard error (SE), the number of un-weighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R $\pm$ 2SE), for each variable. The sampling errors for mortality rates are presented for the five year period preceding the survey for the whole country and for the ten year period preceding the survey by residence, ecological zones, and development regions. The DEFT is considered undefined when the standard error considering a simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women age 40-49*) can be interpreted as follows: the estimated proportion from the national sample is 4.250 and its standard error is 0.083. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e.,  $4.250\pm2\times0.083$ . There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 40 to 49 is between 4.083 and 4.417.

In general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions values. The relative error for the total fertility rate is 3.8 percent. However for the mortality rates, the average relative standard error for the five-year period mortality rates is much higher, about 10 percent.

There are differentials in the relative standard error for estimates of sub-populations of women, for example for the variable *children ever born to women 40-49*, the relative standard error as percent of the estimated value for the whole country, for the urban area, and for the rural area are 2 percent, 2.8 percent, and 2.2 percent, respectively.

For the total women sample, the value of the DEFT, averaged over all variables, is 1.86. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.86 over that in an equivalent simple random sample.

/ariable	Estimate	Base population
	WOMEN	
Jrban residence	Proportion	All women 15-49
Literacy	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Net attendance ratio	Ratio	Household population [6-10] years
Never married	Proportion	All women 15-49
Currently married/in union Married before age 20	Proportion Proportion	All women 15-49 All women 20-49
Had sexual intercourse before age 18	Proportion	All women 20-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women age 40-49	Mean	All women 40-49
Know any contraceptive method	Proportion	Currently married women 15-49
Know a modern method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49 Currently married women 15-49
Currently using a traditional method Currently using pill	Proportion Proportion	Currently married women 15-49
Currently using condoms	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Currently using rhythm	Proportion	Currently married women 15-49
Jsed public sector source	Proportion	Current users of modern method
Nant no more children	Proportion	Currently married women 15-49
Nant to delay next birth at least 2 years	Proportion	Currently married women 15-49 All women 15-49
deal number of children Nothers protected against tetanus for last birth	Mean Proportion	Women with a live birth in last five years
Births with skilled attendant at delivery	Proportion	Births occurring 1-59 months before survey
Had diarrhea in the past 2 weeks	Proportion	Children under 5
Freated with ORS	Proportion	Children under 5 with diarrhea in past 2 weeks
Sought medical treatment	Proportion	Children under 5 with diarrhea in past 2 weeks
/accination card seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination Received all vaccinations	Proportion	Children 12-23 months Children 12-23 months
Height-for-age (-2SD)	Proportion Proportion	Children under 5 who are measured
Weight-for-height (-2SD)	Proportion	Children under 5 who are measured
Weight-for-age (-2SD)	Proportion	Children under 5 who are measured
Body Mass Index (BMI) <18.5	Proportion	All women 15-49 who were measured
Prevalence of anemia (children 6-59 months)	Proportion	All children 6-59 months who were tested
Prevalence of anemia (women 15-49)	Proportion	All women 15-49 who were tested
Had an HIV test and received results in past 12 months	Proportion	All women 15-49
Accepting attitudes towards people with HIV	Proportion	All women who have heard of HIV/AIDS
Fotal fertility rate (3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate <sup>1</sup>	Rate	Children exposed to the risk of mortality
Post-neonatal mortality rate <sup>1</sup> nfant mortality rate <sup>1</sup>	Rate Rate	Children exposed to the risk of mortality Children exposed to the risk of mortality
Child mortality rate <sup>1</sup>	Rate	Children exposed to the risk of mortality
Jnder-five mortality rate <sup>1</sup>	Rate	Children exposed to the risk of mortality
,	MEN	
Jrban residence	Proportion	All men 15-49
iteracy	Proportion	All men 15-49 All men 15-49
No education	Proportion	All men 15-49
Secondary education or higher	Proportion	All men 15-49
Never married/in union	Proportion	All men 15-49
Currently married/in union	Proportion	All men 15-49
lad sexual intercourse before age 18	Proportion	All men 20-49
Know any contraceptive method	Proportion	Currently married men 15-49
Know a modern method	Proportion	Currently married men 15-49
Nant no more children Nant to delay next birth at least 2 years	Proportion Proportion	Currently married men 15-49
deal number of children	Mean	Currently married men 15-49 All men 15-49
Abstinence among youth (never had sex)	Proportion	Men 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married men 15-24
Paid for sexual intercourse in past 12 months	Proportion	All men 15-49
Had an HIV test and received results in past 12 months	Proportion	All men 15-49
Accepting attitudes towards people with HIV	Proportion	All men who have heard of HIV/AIDS

<sup>1</sup> The mortality rates are calculated for 5 years and 10 years before the survey for the national sample and regional samples, respectively.

#### Table B.2 Sampling errors for national sample, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
	Value	error	Unweighted	Weighted	effect	error	D 605	
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOME	EN					
rban residence	0.144	0.003	12674	12674	1.028	0.022	0.137	0.15
iteracy	0.667	0.017	12674	12674	4.089	0.026	0.632	0.70
lo education	0.398 0.428	0.015 0.014	12674 12674	12674 12674	3.475	0.038 0.034	0.368	0.42 0.45
Secondary education or higher let attendance ratio	0.428	0.014	6153	6087	3.292 2.647	0.034	0.399 0.870	0.45
lever married	0.214	0.006	12674	12674	1.672	0.028	0.202	0.22
Currently married/in union	0.758	0.006	12674	12674	1.612	0.008	0.746	0.77
Aarried before age 20	0.705	0.010	9884	9921	2.286	0.015	0.684	0.72
lad sexual intercourse before age 18	0.506	0.012	9884	9921	2.450	0.024	0.482	0.53
Currently pregnant	0.049	0.003	12674	12674	1.535	0.060	0.043	0.05
Children ever born	2.117	0.039	12674	12674	2.172	0.019	2.038	2.19
Children surviving	1.913	0.034	12674	12674	2.155	0.018	1.845	1.98
Children ever born to women 40-49	4.250	0.083	2216	2232	1.826	0.020	4.083	4.41
Know any contraceptive method	1.000 1.000	0.000 0.000	9460 9460	9608 9608	0.792 0.792	0.000 0.000	1.000 1.000	1.00 1.00
(now a modern method Currently using any method	0.497	0.000	9460	9608	2.075	0.021	0.476	0.51
Currently using a modern method	0.432	0.011	9460	9608	2.085	0.025	0.410	0.45
Currently using a traditional method	0.065	0.004	9460	9608	1.685	0.066	0.056	0.07
Currently using pill	0.041	0.003	9460	9608	1.536	0.076	0.035	0.04
Currently using condom	0.043	0.003	9460	9608	1.381	0.067	0.038	0.04
Currently using injectables	0.092	0.005	9460	9608	1.578	0.051	0.082	0.10
Currently using female sterilization	0.152	0.009	9460	9608	2.322	0.056	0.135	0.16
Current using withdrawal	0.054	0.004	9460	9608	1.714	0.074	0.046	0.06
Currently using rhythm	0.011	0.002	9460	9608	1.395	0.133	0.008	0.01
Ised public sector source	0.690	0.014	4193	4206	1.999	0.021	0.661	0.71
Vant no more children	0.727	0.008	9460	9608	1.818	0.011	0.711	0.74
Vant to delay next birth at least 2 years	0.140	0.005	9460	9608	1.264	0.032	0.131	0.14
deal number of children	2.133	0.028	12637	12630	4.113	0.013	2.076	2.19
Nothers protected against tetanus for last birth	0.815	0.013	4079	4148	2.210	0.016	0.789	0.84
Births with skilled attendant at delivery	0.360	0.017	5306	5391	2.360	0.047	0.326	0.39
lad diarrhea in the past 2 weeks reated with ORS	0.138 0.390	0.007 0.027	5054 679	5140 711	1.377 1.420	0.049 0.070	0.125 0.336	0.15 0.44
Sought medical treatment	0.380	0.027	679	711	1.495	0.073	0.324	0.44
accination card seen	0.339	0.026	945	1000	1.704	0.076	0.287	0.39
Received BCG vaccination	0.965	0.008	945	1000	1.310	0.008	0.950	0.98
Received DPT vaccination (3 doses)	0.917	0.015	945	1000	1.670	0.016	0.888	0.94
Received polio vaccination (3 doses)	0.925	0.014	945	1000	1.730	0.016	0.896	0.95
Received measles vaccination	0.880	0.021	945	1000	2.003	0.024	0.839	0.92
Received all vaccinations	0.870	0.021	945	1000	1.942	0.024	0.828	0.91
leight-for-age (-2SD)	0.405	0.014	2430	2475	1.917	0.035	0.377	0.43
Veight-for-height (-2SD)	0.109	0.008	2430	2475	1.833	0.074	0.093	0.12
Veight-for-age (-2SD)	0.288	0.013	2430	2475	1.947	0.045	0.262	0.31
Body Mass Index (BMI) < 18.5	0.182	0.010	5794	5800	1.959	0.055	0.162	0.20
Prevalence of anemia (children 6-59 months)	0.462	0.017	2180	2198	2.265	0.037	0.428	0.49
Prevalence of anemia (women 15-49)	0.350	0.012	6086	6088	1.976	0.035	0.326	0.37
ccepting attitudes towards people with HIV	0.496	0.013	11295	10944	2.666	0.025	0.471	0.52
lad an HIV test and received result in past 12 months	0.029 0.123	0.002 0.008	12674 4197	12674 4197	1.594 1.561	0.082 0.064	0.024 0.107	0.03 0.13
ver experience of sexual violence	0.123	0.008	3505	3225	2.042	0.055	0.107	0.13
Physical or sexual violence by any husband Physical/sexual violence by husband in 12 months	0.282	0.018	3505	3225	2.042	0.055	0.251	0.31
otal fertility rate (TFR) 3 years	2.604	0.100	na	249357	2.173	0.038	2.404	2.80
leonatal Mortality rate (5 years)	32.910	3.293	5352	5430	1.288	0.100	26.324	39.49
Post-neonatal Mortality rate (5 years)	13.014	1.789	5360	5435	1.119	0.137	9.437	16.59
nfant Mortality rate (0-4)	45.924	3.685	5361	5437	1.223	0.080	38.555	53.29
Child Mortality rate (5 years)	8.870	1.567	5376	5452	1.247	0.177	5.735	12.00
Inder-five mortality rate (0-4)	54.386	3.995	5386	5462	1.237	0.073	46.396	62.37
		MEN	١					
rban residence	0.174	0.006	4121	4121	0.987	0.033	0.162	0.18
iteracy	0.174	0.008	4121	4121	2.189	0.033	0.162	0.18
lo education	0.870	0.011	4121	4121	2.169	0.089	0.047	0.89
Secondary education or higher	0.665	0.012	4121	4121	2.000	0.022	0.635	0.69
lever married	0.348	0.010	4121	4121	1.327	0.022	0.328	0.36
urrently married/in union	0.637	0.010	4121	4121	1.328	0.016	0.617	0.65
ad sexual intercourse before age 18	0.188	0.011	3112	3143	1.634	0.061	0.165	0.21
now any contraceptive method	0.998	0.001	2628	2626	1.105	0.001	0.997	1.00
now any modern method	0.998	0.001	2628	2626	1.105	0.001	0.997	1.00
/ant no more children	0.691	0.013	2628	2626	1.419	0.019	0.665	0.71
/ant to delay next birth at least 2 years	0.171	0.010	2628	2626	1.312	0.056	0.151	0.19
deal number of children	2.261	0.026	4117	4119	1.930	0.012	2.209	2.31
ad 2+ sexual partners in past 12 months	0.038	0.004	4121	4121	1.228	0.097	0.030	0.04
condom use at last sex	0.265	0.041	145	155	1.121	0.156	0.183	0.34
bstinence among youth (Never had sex)	0.778	0.016	1301	1281	1.410	0.021	0.745	0.81
exually active in past 12 months among never-married youth	0.150	0.013	1301	1281	1.298	0.086	0.124	0.17
Paid for sexual intercourse in past 12 months	0.015	0.002	4121	4121	1.309	0.167	0.010	0.02
lad an HIV test and received results in past 12 months accepting attitudes towards people with HIV	0.075	0.006 0.014	4121	4121 3991	1.573	0.086	0.062	0.08
	0.475	0.014	4013	3991	1.766	0.029	0.447	0.50

#### Table B.3 Sampling errors for urban sample, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
	Value	error	Unweighted	Weighted	effect	error	D 607	
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOME	EN					
rban residence	1.000	0.000	3701	1819	na	0.000	1.000	1.000
iteracy o education	0.828 0.220	0.012 0.012	3701 3701	1819 1819	1.884 1.755	0.014 0.054	0.804 0.196	0.851 0.244
econdary education or higher	0.637	0.012	3701	1819	2.100	0.026	0.604	0.24
et attendance ratio	0.938	0.009	1531	713	1.314	0.010	0.920	0.956
lever married	0.277	0.012	3701	1819	1.653	0.044	0.253	0.30
urrently married (in union)	0.693	0.012	3701	1819	1.620	0.018	0.669	0.718
larried before age 20	0.577	0.017	2906	1452	1.814	0.029	0.544	0.61
ad sexual intercourse before age 18	0.397	0.016	2906	1452	1.770	0.040	0.365	0.429
urrently pregnant hildren ever born	0.040 1.614	0.004 0.045	3701 3701	1819 1819	1.181	0.095	0.033 1.524	0.048 1.704
hildren surviving	1.493	0.045	3701	1819	1.684 1.634	0.028 0.026	1.324	1.572
hildren ever born to women 40-49	3.263	0.091	625	305	1.316	0.028	3.081	3.44
nowing any contraceptive method	1.000	0.000	2584	1261	na	0.000	1.000	1.00
now a modern method	1.000	0.000	2584	1261	na	0.000	1.000	1.000
urrently using any contraceptive method	0.596	0.015	2584	1261	1.558	0.025	0.566	0.626
urrently using a modern method	0.498	0.016	2584	1261	1.653	0.033	0.466	0.53
urrently using a traditional method	0.097	0.008	2584	1261	1.411	0.085	0.080	0.113
urrently using pill	0.061	0.006	2584	1261	1.336	0.103	0.048	0.074
currently using condom	0.094 0.104	0.009 0.007	2584 2584	1261 1261	1.546 1.241	0.095 0.072	0.076 0.089	0.111 0.118
urrently using female sterilization	0.104	0.007	2584 2584	1261	1.686	0.072	0.089	0.11
current using withdrawal	0.135	0.011	2584	1261	1.000	0.082	0.066	0.15
Currently using rhythm	0.017	0.004	2584	1261	1.412	0.209	0.010	0.02
sed public sector source	0.454	0.021	1285	637	1.507	0.046	0.412	0.49
/ant no more children	0.727	0.011	2584	1261	1.290	0.016	0.705	0.75
/ant to delay next birth at least 2 years	0.129	0.008	2584	1261	1.203	0.062	0.113	0.14
deal number of children	1.896	0.025	3689	1811	2.021	0.013	1.846	1.94
lothers protected against tetanus for last birth	0.908	0.010	897	418	1.021	0.011	0.888	0.92
irths with skilled attendant at delivery	0.727	0.022	1091	503	1.440	0.031	0.682	0.772
ad diarrhea in the past 2 weeks reated with ORS packets	0.134 0.442	0.015 0.052	1049 136	483 65	1.373 1.171	0.114 0.117	0.103 0.339	0.16 0.54
ought medical treatment	0.442	0.052	136	65	1.109	0.110	0.339	0.54
accination card seen	0.387	0.047	197	97	1.226	0.110	0.302	0.32
eceived BCG vaccination	0.980	0.014	197	97	1.361	0.014	0.953	1.00
eceived DPT vaccination (3 doses)	0.949	0.019	197	97	1.245	0.020	0.910	0.98
eceived polio vaccination (3 doses)	0.967	0.015	197	97	1.215	0.016	0.936	0.99
eceived measles vaccination	0.918	0.022	197	97	1.104	0.024	0.874	0.96
eceived all vaccinations	0.900	0.024	197	97	1.116	0.026	0.852	0.94
eight-for-age (-2SD)	0.267	0.023	501	216	1.512	0.085	0.222	0.31
Veight-for-height (-2SD)	0.082	0.016	501	216	1.780	0.198	0.049	0.114
/eight-for-age (-2SD) edv Mass Index (BMI) < 18.5	0.165 0.141	0.018 0.012	501 1651	216 808	1.501 1.425	0.111 0.087	0.128 0.117	0.202 0.166
ody Mass Index (BMI) < 18.5 revalence of anemia (children 6-59 months)	0.141	0.012	444	188	1.425	0.077	0.348	0.100
revalence of anemia (women 15-49)	0.276	0.032	1709	836	1.428	0.056	0.245	0.307
ccepting attitudes towards people with HIV	0.546	0.015	3484	1722	1.719	0.027	0.517	0.575
ad an HIV test and received result in past 12 months	0.039	0.004	3701	1819	1.340	0.110	0.030	0.04
ver experience of sexual violence	0.107	0.013	1161	1075	1.433	0.121	0.081	0.133
hysical or sexual violence by any husband	0.254	0.025	944	778	1.785	0.100	0.204	0.305
hysical/sexual violence by husband in 12 months	0.156	0.017	944	778	1.428	0.108	0.122	0.190
otal fertility rate (TFR) 3 years	1.578	0.102	na	36192	1.525	0.065	1.374	1.782
eonatal Mortality rate	25.262	3.661	2460	1153	1.103	0.145	17.939	32.58
Post-neonatal Mortality rate	13.213	2.470	2460	1153	1.041 1.018	0.187	8.273 30.208	18.152 46.742
nfant Mortality rate Shild Mortality rate	38.475 6.910	4.134 2.135	2460 2465	1153 1156	1.018	0.107 0.309	30.208 2.639	46.74
nder-five mortality rate	45.119	4.905	2465	1156	1.164	0.109	35.310	54.92
	101110					0.100	001010	0 1.02
		MEN						
rban residence	1.000	0.000	1351	717	na	0.000	1.000	1.00
teracy	0.951	0.007	1351	717	1.217	0.008	0.937	0.96
lo education	0.060	0.009	1351	717	1.332	0.144	0.042	0.07
econdary education or higher ever married	0.792	0.018	1351	717	1.621	0.023	0.756	0.82
urrently married/in union	0.404 0.593	0.016 0.017	1351 1351	717 717	1.230 1.246	0.041 0.028	0.371 0.559	0.43
ad sexual intercourse before age 18	0.593	0.017	1027	562	1.246	0.028	0.559	0.62
nows any contraceptive method	1.000	0.000	802	425	na	0.000	1.000	1.00
now any modern method	1.000	0.000	802	425	na	0.000	1.000	1.00
ant no more children	0.666	0.023	802	425	1.362	0.034	0.620	0.71
ant to delay birth at least 2 years	0.196	0.019	802	425	1.328	0.095	0.159	0.23
eal family size	2.027	0.020	1348	716	1.306	0.010	1.986	2.06
ad 2+ sexual partners in past 12 months	0.043	0.007	1351	717	1.323	0.170	0.028	0.05
ondom use at last sex	0.336	0.074	51	31	1.109	0.220	0.188	0.48
bstinence among youth (Never had sex)	0.797	0.020	472	242	1.106	0.026	0.756	0.838
exually active in past 12 months among never-married youth	0.134	0.017	472	242	1.081	0.126	0.100	0.168
aid for sexual intercourse in last 12 months	0.020	0.005	1351	717	1.403	0.268	0.009	0.03
ad HIV test and received result in past 12 months ccepting attitudes towards people with HIV	0.097 0.565	0.011 0.023	1351 1334	717 711	1.333	0.111	0.076	0.119
ccepting attitudes towards people WITH HIV	0.565	0.023	1334	711	1.661	0.040	0.520	0.61

#### Table B.4 Sampling errors for rural sample, Nepal 2011

		Standard	Number		Design	Relative	Confidence limits	
(ariakla	Value	error	Unweighted	Weighted	effect	error	DAGE	D . 20
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOME						
Irban residence	0.000 0.640	0.000 0.020	8973 8973	10855 10855	na 3.916	na 0.031	0.000 0.600	0.000 0.679
iteracy No education	0.640	0.020	8973	10855	3.342	0.031	0.800	0.679
Secondary education or higher	0.392	0.017	8973	10855	3.214	0.041	0.359	0.426
Net attendance ratio	0.887	0.013	4622	5374	2.478	0.015	0.861	0.914
Never married	0.203	0.007	8973	10855	1.603	0.034	0.189	0.217
Currently married (in union)	0.769	0.007	8973	10855	1.539	0.009	0.755	0.78
Aarried before age 20	0.727	0.012	6978	8469	2.240	0.016	0.703	0.75
Had sexual intercourse before age 18	0.525	0.014	6978	8469	2.374 1.460	0.027	0.497	0.554
Currently pregnant Children ever born	0.051 2.201	0.003 0.045	8973 8973	10855 10855	2.052	0.067 0.020	0.044 2.111	0.057 2.292
Children surviving	1.983	0.039	8973	10855	2.032	0.020	1.905	2.062
Children ever born to women 40-49	4.406	0.096	1591	1927	1.755	0.022	4.215	4.59
(nowing any contraceptive method	1.000	0.000	6876	8346	0.724	0.000	1.000	1.000
Know a modern method	1.000	0.000	6876	8346	0.724	0.000	1.000	1.000
Currently using any contraceptive method	0.482	0.012	6876	8346	1.987	0.025	0.458	0.506
Currently using a modern method	0.421	0.012	6876	8346	2.000	0.028	0.398	0.44
Currently using a traditional method	0.060	0.005	6876	8346	1.658	0.079	0.051	0.07
Currently using pill	0.038	0.003	6876	8346	1.502	0.091	0.031	0.04
Currently using condom	0.036	0.003	6876	8346	1.354	0.085	0.030	0.042
Currently using injectable	0.090	0.005	6876	8346	1.525	0.059	0.079	0.10
Currently using female sterilization	0.154	0.010	6876	8346	2.229	0.063	0.135	0.174
Current using withdrawal	0.050	0.004	6876	8346	1.701	0.090	0.041	0.05
Currently using rhythm Jsed public sector source	0.011 0.732	0.002 0.016	6876 2908	8346 3569	1.357 1.961	0.158 0.022	0.007 0.700	0.01 0.76
Vant no more children	0.732	0.016	6876	3569 8346	1.961	0.022	0.700	0.76
Vant to delay next birth at least 2 years	0.142	0.009	6876	8346	1.199	0.036	0.131	0.74
deal number of children	2.173	0.033	8948	10819	4.004	0.015	2.107	2.23
Nothers protected against tetanus for last birth	0.805	0.015	3182	3730	2.058	0.018	0.775	0.83
Births with skilled attendant at delivery	0.323	0.018	4215	4888	2.212	0.055	0.287	0.359
ad diarrhea in the past 2 weeks	0.139	0.007	4005	4656	1.284	0.053	0.124	0.154
Freated with ORS packets	0.385	0.029	543	646	1.333	0.077	0.326	0.444
Sought medical treatment	0.375	0.030	543	646	1.407	0.081	0.314	0.436
accination card seen	0.334	0.028	748	903	1.606	0.084	0.278	0.390
Received BCG vaccination	0.964	0.008	748	903	1.203	0.009	0.947	0.98
Received DPT vaccination (3 doses)	0.914	0.016	748	903	1.545	0.017	0.882	0.94
Received polio vaccination (3 doses)	0.920	0.016	748	903	1.589	0.017	0.889	0.95
Received measles vaccination	0.876	0.023	748 748	903 903	1.867	0.026	0.831 0.820	0.92 0.91
Received all vaccinations Height-for-age (-2SD)	0.866 0.418	0.023 0.015	1929	2259	1.817 1.789	0.026 0.036	0.820	0.91
Veight-for-height (-2SD)	0.418	0.009	1929	2259	1.695	0.078	0.094	0.12
Weight-for-age (-2SD)	0.300	0.009	1929	2259	1.798	0.046	0.272	0.123
Body Mass Index (BMI) < 18.5	0.188	0.011	4143	4992	1.868	0.060	0.166	0.21
Prevalence of anemia (children 6-59 months)	0.467	0.019	1736	2011	2.118	0.040	0.430	0.504
Prevalence of anemia (women 15-49)	0.362	0.014	4377	5252	1.884	0.038	0.334	0.389
Accepting attitudes towards people with HIV	0.486	0.015	7811	9222	2.605	0.030	0.457	0.516
lad an HIV test and received result in past 12 months	0.027	0.003	8973	10855	1.557	0.098	0.022	0.033
ver experience of sexual violence	0.129	0.010	3036	3122	1.590	0.075	0.110	0.148
Physical or sexual violence by any husband	0.291	0.019	2561	2447	2.096	0.065	0.253	0.328
Physical/sexual violence by husband in 12 months	0.139	0.009	2561	2447	1.298	0.064	0.121	0.156
otal fertility rate (TFR) 3 years	2.782	0.112	na	212377	2.021	0.040	2.557	3.007
Neonatal Mortality rate	36.333	2.615	8787	10121	1.215	0.072	31.102	41.56
Post-neonatal Mortality rate	18.648	1.586	8798	10134	1.039	0.085	15.476	21.820
nfant Mortality rate Child Mortality rate	54.981 9.945	3.042 1.223	8799 8812	10136 10141	1.133 1.057	0.055 0.123	48.897 7.499	61.06 12.39
Inder-five mortality rate	9.945 64.380	3.375	8825	10141	1.169	0.123	7.499 57.630	71.12
	07.000			10137	1.103	0.002	57.000	71.123
		MEN						
Irban residence	0.000	0.000	2770	3404	na	na	0.000	0.00
iteracy	0.853	0.014	2770	3404	2.055	0.016	0.825	0.88
No education	0.154	0.015	2770	3404	2.161	0.096	0.124	0.18
Secondary education or higher	0.638	0.017	2770	3404	1.913	0.027	0.603	0.67
Never married	0.336	0.011	2770	3404	1.277	0.034	0.313	0.35
Currently married/in union	0.647 0.206	0.012 0.014	2770 2085	3404	1.274	0.018	0.624	0.67
lad sexual intercourse before age 18 nows any contraceptive method	0.206	0.014	2085	2582 2201	1.555 1.005	0.067 0.001	0.178 0.996	0.23 1.00
nows any contraceptive method	0.998	0.001	1826	2201	1.005	0.001	0.996	1.00
Vant no more children	0.696	0.001	1826	2201	1.359	0.021	0.998	0.72
Vant to delay birth at least 2 years	0.050	0.013	1826	2201	1.256	0.066	0.144	0.12
deal family size	2.310	0.032	2769	3402	1.825	0.014	2.247	2.37
lad 2+ sexual partners in past 12 months	0.037	0.004	2770	3404	1.158	0.113	0.028	0.04
Condom use at last sex	0.247	0.048	94	125	1.063	0.192	0.152	0.34
Abstinence among youth (Never had sex)	0.773	0.019	829	1039	1.338	0.025	0.734	0.81
Sexually active in past 12 months among never-married youth	0.153	0.015	829	1039	1.225	0.100	0.122	0.184
Paid for sexual intercourse in last 12 months	0.014	0.003	2770	3404	1.250	0.203	0.008	0.01
ad HIV test and received result in past 12 months	0.070	0.007	2770	3404	1.540	0.107	0.055	0.08
ccepting attitudes towards people with HIV	0.455	0.016	2679	3280	1.689	0.036	0.423	0.488

### Table B.5 Sampling errors for Mountain region, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
(	Value	error	Unweighted	Weighted	effect	error	D 005	D : 00
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOM	EN					
Jrban residence	0.027	0.001	2033	805	0.358	0.047	0.025	0.030
iteracy No education	0.579 0.520	0.026 0.026	2033 2033	805 805	2.359 2.307	0.045 0.049	0.527 0.469	0.631 0.571
Secondary education or higher	0.320	0.020	2033	805	2.081	0.069	0.265	0.350
Vet attendance ratio	0.932	0.008	1133	469	1.073	0.008	0.917	0.948
Never married	0.188	0.010	2033	805	1.152	0.053	0.168	0.208
Currently married (in union)	0.783	0.012	2033	805	1.257	0.015	0.760	0.806
Aarried before age 20	0.766	0.013	1562	623	1.194	0.017	0.741	0.792
lad sexual intercourse before age 18	0.552	0.017	1562	623	1.379	0.031	0.517	0.587
Currently pregnant	0.057 2.501	0.006 0.069	2033 2033	805 805	1.203 1.362	0.108 0.028	0.045 2.362	0.070
Children ever born Children surviving	2.178	0.052	2033	805	1.216	0.028	2.075	2.033
Children ever born to women 40-49	4.846	0.175	399	157	1.466	0.036	4.495	5.197
nowing any contraceptive method	0.999	0.001	1558	630	0.919	0.001	0.998	1.00
(now a modern method	0.999	0.001	1558	630	0.919	0.001	0.998	1.00
Currently using any contraceptive method	0.483	0.023	1558	630	1.808	0.047	0.438	0.529
Currently using a modern method	0.431	0.022	1558	630	1.763	0.051	0.386	0.47
currently using a traditional method	0.053	0.008	1558	630	1.448	0.155	0.036	0.069
Currently using pill	0.030	0.006	1558	630	1.445	0.210	0.017	0.042
Currently using condom	0.030	0.006	1558	630	1.476	0.211	0.018	0.043
Currently using injectable	0.123	0.013	1558	630	1.571	0.106	0.097	0.149
Currently using female sterilization	0.030	0.006	1558	630	1.414	0.205	0.017	0.042
Current using withdrawal	0.038	0.007	1558	630	1.445	0.185	0.024	0.05
Currently using rhythm	0.015	0.004	1558	630 273	1.164	0.237	0.008	0.022
lsed public sector source Vant no more children	0.849 0.749	0.020 0.010	674 1558	273 630	1.470 0.931	0.024 0.014	0.808 0.728	0.889
Vant to delay next birth at least 2 years	0.749	0.010	1558	630 630	1.019	0.014	0.728	0.76
deal number of children	2.194	0.033	2032	805	2.002	0.015	2.128	2.259
Nothers protected against tetanus for last birth	0.696	0.033	742	306	1.994	0.047	0.630	0.762
Births with skilled attendant at delivery	0.189	0.028	1020	428	2.100	0.151	0.132	0.246
lad diarrhea in the past 2 weeks	0.134	0.018	959	400	1.634	0.134	0.098	0.170
reated with ORS packets	0.352	0.067	126	54	1.573	0.191	0.217	0.486
ought medical treatment	0.355	0.060	126	54	1.403	0.169	0.235	0.475
accination card seen	0.259	0.041	181	75	1.268	0.157	0.178	0.340
Received BCG vaccination	0.937	0.025	181	75	1.385	0.026	0.887	0.986
Received DPT vaccination (3 doses)	0.904	0.041	181	75	1.907	0.045	0.822	0.986
eceived polio vaccination (3 doses)	0.911	0.035	181	75	1.688	0.039	0.840	0.981
Received measles vaccination	0.909	0.033	181	75	1.589	0.037	0.843	0.976
teceived all vaccinations leight-for-age (-2SD)	0.882 0.529	0.043 0.029	181 466	75 195	1.829 1.765	0.049 0.055	0.796 0.471	0.968 0.587
Veight-for-height (-2SD)	0.329	0.029	466	195	1.907	0.055	0.471	0.38
Veight-for-age (-2SD)	0.359	0.019	466	195	1.850	0.086	0.298	0.421
Body Mass Index (BMI) < 18.5	0.165	0.015	930	371	1.220	0.090	0.135	0.194
Prevalence of anemia (children 6-59 months)	0.477	0.031	428	179	1.859	0.066	0.414	0.540
Prevalence of anemia (women 15-49)	0.269	0.021	1000	399	1.529	0.079	0.226	0.312
ccepting attitudes towards people with HIV	0.327	0.020	1773	692	1.823	0.062	0.287	0.368
lad an HIV test and received result in past 12 months	0.024	0.006	2033	805	1.794	0.254	0.012	0.036
ver experience of sexual violence	0.131	0.022	711	442	1.726	0.166	0.088	0.175
hysical or sexual violence by any husband	0.265	0.028	590	335	1.561	0.107	0.208	0.322
Physical/sexual violence by husband in 12 months	0.128	0.018	590	335	1.274	0.137	0.093	0.164
otal fertility rate (TFR) 3 years	3.445	0.267	na	16086	2.066	0.078	2.910	3.980
leonatal Mortality rate	45.798	7.158	2162	905	1.473	0.156	31.482	60.113
Post-neonatal Mortality rate nfant Mortality rate	26.940	3.864	2165	906 906	1.072	0.143 0.100	19.211 58.173	34.669 87.302
ntant Mortality rate Child Mortality rate	72.737 15.645	7.282 3.241	2165 2171	906	1.223 1.150	0.100 0.207	58.173 9.164	87.302 22.120
Inder-five mortality rate	87.245	3.241 8.831	2171	909 911	1.150	0.207	9.164 69.582	104.907
	01.240			911	1.304	0.101	03.302	104.501
		MEI						
Irban residence	0.027	0.005	618	245	0.792	0.193	0.016	0.03
iteracy	0.865	0.018	618	245	1.343	0.021	0.828	0.902
lo education	0.148	0.020	618	245	1.406	0.136	0.107	0.188
econdary education or higher	0.576	0.026	618	245	1.307	0.045	0.524	0.628
lever married	0.259	0.018	618	245	1.038	0.071	0.222	0.29
urrently married/in union ad sexual intercourse before age 18	0.731 0.194	0.019 0.024	618 466	245 188	1.046 1.305	0.026 0.123	0.693 0.146	0.76 0.24
nows any contraceptive method	0.194 0.997	0.024	400	179	1.305	0.123	0.146	1.003
now any modern method	0.997	0.003	436	179	1.105	0.003	0.992	1.00
/ant no more children	0.997	0.003	436	179	1.148	0.033	0.992	0.78
/ant to delay birth at least 2 years	0.181	0.019	436	179	1.026	0.105	0.004	0.219
leal family size	2.361	0.041	618	245	1.479	0.017	2.279	2.443
ad 2+ sexual partners in past 12 months	0.027	0.005	618	245	0.814	0.196	0.016	0.03
ondom use at last sex	0.254	0.109	16	7	0.970	0.429	0.036	0.47
bstinence among youth (Never had sex)	0.796	0.033	164	59	1.057	0.042	0.729	0.86
exually active in past 12 months among never-married youth	0.160	0.030	164	59	1.037	0.186	0.101	0.220
aid for sexual intercourse in last 12 months	0.011	0.004	618	245	1.010	0.393	0.002	0.019
ad HIV test and received result in past 12 months	0.053	0.011	618	245	1.245	0.213	0.030	0.075
ccepting attitudes towards people with HIV	0.450	0.033	601	238	1.637	0.074	0.384	0.517

#### Table B.6 Sampling errors for Hill region, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
	Value	error	Unweighted	Weighted	effect	error		
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOME	N					
rban residence	0.182	0.007	4974	5090	1.213	0.036	0.169	0.19
teracy	0.732 0.355	0.014 0.015	4974 4974	5090 5090	2.173 2.174	0.019 0.042	0.705 0.325	0.759 0.384
o education econdary education or higher	0.355	0.013	4974	5090	2.437	0.042	0.425	0.38
et attendance ratio	0.907	0.009	2423	2391	1.546	0.010	0.888	0.926
ever married	0.225	0.008	4974	5090	1.285	0.034	0.210	0.24
urrently married (in union)	0.744	0.007	4974	5090	1.180	0.010	0.729	0.758
arried before age 20	0.657	0.014	3893	4004	1.817	0.021	0.629	0.684
ad sexual intercourse before age 18	0.452	0.013	3893	4004	1.657	0.029	0.425	0.478
urrently pregnant hildren ever born	0.047 2.109	0.003 0.054	4974 4974	5090 5090	1.098	0.070	0.040 2.002	0.054 2.210
hildren surviving	1.909	0.034	4974	5090	1.806 1.739	0.025 0.024	1.819	1.999
hildren ever born to women 40-49	4.236	0.123	886	946	1.633	0.024	3.989	4.482
nowing any contraceptive method	1.000	0.000	3675	3784	0.830	0.000	0.999	1.000
now a modern method	1.000	0.000	3675	3784	0.830	0.000	0.999	1.000
urrently using any contraceptive method	0.482	0.015	3675	3784	1.769	0.030	0.453	0.51
urrently using a modern method	0.406	0.015	3675	3784	1.847	0.037	0.376	0.43
urrently using a traditional method	0.075	0.007	3675	3784	1.573	0.091	0.062	0.089
urrently using pill	0.041	0.004	3675	3784	1.164	0.092	0.034	0.049
urrently using condom	0.050	0.005	3675	3784	1.258	0.090	0.041	0.059
urrently using injectable	0.106	0.007	3675	3784 3784	1.464	0.070	0.091 0.056	0.12
urrently using female sterilization urrent using withdrawal	0.071 0.062	0.008 0.006	3675 3675	3784 3784	1.820 1.575	0.108 0.101	0.056	0.08
urrently using withdrawai	0.062	0.008	3675	3784	1.575	0.101	0.049	0.07
sed public sector source	0.689	0.003	1518	1557	1.436	0.204	0.648	0.01
/ant no more children	0.758	0.021	3675	3784	1.380	0.013	0.738	0.77
/ant to delay next birth at least 2 years	0.144	0.007	3675	3784	1.254	0.050	0.129	0.15
leal number of children	2.043	0.022	4953	5064	2.214	0.011	1.998	2.08
lothers protected against tetanus for last birth	0.730	0.028	1656	1669	2.502	0.038	0.675	0.78
irths with skilled attendant at delivery	0.304	0.027	2135	2130	2.411	0.088	0.251	0.35
ad diarrhea in the past 2 weeks	0.127	0.011	2034	2033	1.429	0.087	0.105	0.14
reated with ORS packets	0.403	0.040	261	258	1.242	0.100	0.323	0.48
ought medical treatment	0.386	0.041	261	258	1.327	0.106	0.304	0.46
accination card seen eceived BCG vaccination	0.351 0.963	0.029 0.012	387 387	402 402	1.202 1.222	0.083 0.012	0.293 0.940	0.41 0.98
eceived DPT vaccination (3 doses)	0.903	0.012	387	402	1.449	0.012	0.897	0.97
eceived polio vaccination (3 doses)	0.935	0.019	387	402	1.513	0.020	0.897	0.97
eceived measles vaccination	0.904	0.020	387	402	1.286	0.022	0.864	0.94
eceived all vaccinations	0.895	0.021	387	402	1.295	0.023	0.853	0.93
eight-for-age (-2SD)	0.421	0.019	994	989	1.590	0.045	0.383	0.45
/eight-for-height (-2SD)	0.106	0.012	994	989	1.683	0.114	0.082	0.13
/eight-for-age (-2SD)	0.266	0.017	994	989	1.644	0.066	0.231	0.30
ody Mass Index (BMI) < 18.5	0.124	0.009	2261	2316	1.303	0.073	0.106	0.14
revalence of anemia (children 6-59 months)	0.410	0.023	901	902	1.895	0.056	0.364	0.45
revalence of anemia (women 15-49) ccepting attitudes towards people with HIV	0.269	0.014 0.016	2386 4699	2436 4782	1.509 2.201	0.051 0.034	0.242 0.439	0.290 0.503
ad an HIV test and received result in past 12 months	0.471 0.034	0.016	4099 4974	4782 5090	1.570	0.034	0.439	0.50
ver experience of sexual violence	0.098	0.004	1684	2038	1.485	0.110	0.076	0.119
hysical or sexual violence by any husband	0.221	0.018	1386	1520	1.604	0.081	0.185	0.25
hysical/sexual violence by husband in 12 months	0.123	0.012	1386	1520	1.322	0.095	0.099	0.14
otal fertility rate (TFR) 3 years	2.558	0.124	na	14220	1.601	0.049	2.310	2.80
eonatal Mortality rate	33.380	3.259	4470	4460	1.126	0.098	26.861	39.89
ost-neonatal Mortality rate	16.838	2.109	4474	4465	1.053	0.125	12.621	21.056
fant Mortality rate	50.218	3.926	4475	4467	1.087	0.078	42.366	58.07
hild Mortality rate	7.912	1.481	4478	4464	1.114	0.187	4.950	10.87
nder-five mortality rate	57.732	4.255	4484	4472	1.111	0.074	49.223	66.24
		MEN	1					
rban residence	0.231	0.011	1582	1658	1.023	0.047	0.209	0.25
teracy	0.927	0.010	1582	1658	1.527	0.011	0.907	0.94
o education	0.098	0.012	1582	1658	1.540	0.118	0.075	0.12
econdary education or higher	0.694	0.019	1582	1658	1.662	0.028	0.656	0.73
ever married	0.347	0.016	1582	1658	1.322	0.046	0.316	0.37
urrently married/in union	0.637	0.016	1582	1658	1.327	0.025	0.605	0.66
ad sexual intercourse before age 18 nows any contraceptive method	0.189 0.997	0.018 0.002	1205 1015	1276 1057	1.636 1.183	0.098 0.002	0.152 0.994	0.22 1.00
nows any contraceptive method	0.997	0.002	1015	1057	1.183	0.002	0.994	1.00
ant no more children	0.337	0.002	1015	1057	1.155	0.024	0.669	0.73
ant to delay birth at least 2 years	0.169	0.014	1015	1057	1.169	0.082	0.141	0.19
eal family size	2.215	0.034	1582	1658	1.436	0.015	2.147	2.28
ad 2+ sexual partners in past 12 months	0.034	0.005	1582	1658	1.109	0.149	0.024	0.04
ondom use at last sex	0.345	0.074	55	56	1.148	0.215	0.196	0.49
bstinence among youth (Never had sex)	0.785	0.024	495	510	1.288	0.030	0.737	0.83
exually active in past 12 months among never-married youth	0.155	0.022	495	510	1.327	0.139	0.112	0.198
aid for sexual intercourse in last 12 months	0.013	0.003	1582	1658	1.114	0.248	0.006	0.01
	0.004	0.040	1582	1650	1.679	0.142	0.058	0.104
ad HIV test and received result in past 12 months ccepting attitudes towards people with HIV	0.081 0.517	0.012 0.018	1546	1658 1616	1.377	0.034	0.038	0.552

#### Table B.7 Sampling errors for Terai region, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
	Value	error	Unweighted	Weighted	effect	error	D 005	D.00
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2SI
		WOME	=N					
rban residence	0.128	0.003	5667	6779	0.705	0.024	0.122	0.135
iteracy lo education	0.628 0.416	0.030 0.026	5667 5667	6779 6779	4.683 3.939	0.048 0.062	0.568 0.365	0.688 0.468
econdary education or higher	0.418	0.020	5667	6779	3.610	0.057	0.370	0.465
et attendance ratio	0.877	0.021	2597	3227	2.733	0.024	0.836	0.919
ever married	0.208	0.010	5667	6779	1.811	0.047	0.188	0.228
urrently married (in union)	0.766	0.010	5667	6779	1.771	0.013	0.746	0.786
arried before age 20	0.734	0.017	4429	5294	2.510	0.023	0.701	0.767
ad sexual intercourse before age 18 urrently pregnant	0.542 0.050	0.021 0.005	4429 5667	5294 6779	2.775 1.685	0.038 0.098	0.501 0.040	0.584 0.059
hildren ever born	2.077	0.061	5667	6779	2.347	0.029	1.956	2.199
hildren surviving	1.885	0.054	5667	6779	2.335	0.029	1.777	1.992
hildren ever born to women 40-49	4.179	0.126	931	1128	1.905	0.030	3.927	4.432
nowing any contraceptive method	1.000	0.000	4227	5193	na	0.000	1.000	1.000
now a modern method	1.000	0.000	4227	5193	na	0.000	1.000	1.000
urrently using any contraceptive method	0.510	0.016	4227	5193	2.145	0.032	0.477	0.542
urrently using a modern method urrently using a traditional method	0.450 0.059	0.016 0.006	4227 4227	5193 5193	2.118 1.655	0.036 0.102	0.418 0.047	0.483 0.071
urrently using pill	0.039	0.005	4227	5193	1.625	0.118	0.033	0.071
irrently using condom	0.040	0.004	4227	5193	1.372	0.103	0.032	0.048
irrently using injectable	0.078	0.007	4227	5193	1.585	0.084	0.065	0.091
urrently using female sterilization	0.225	0.015	4227	5193	2.285	0.065	0.196	0.255
urrent using withdrawal	0.049	0.006	4227	5193	1.695	0.114	0.038	0.061
urrently using rhythm	0.010	0.002	4227	5193	1.309	0.204	0.006	0.014
sed public sector source	0.672	0.021	2001	2376	2.019	0.032	0.630	0.714
ant no more children ant to delay next birth at least 2 years	0.702 0.137	0.013 0.006	4227 4227	5193 5193	1.900 1.203	0.019 0.046	0.676 0.124	0.729 0.150
eal number of children	2.193	0.050	5652	6761	4.599	0.023	2.093	2.293
others protected against tetanus for last birth	0.898	0.011	1681	2174	1.537	0.012	0.876	0.919
rths with skilled attendant at delivery	0.428	0.026	2151	2833	2.298	0.060	0.377	0.480
ad diarrhea in the past 2 weeks	0.148	0.009	2061	2707	1.246	0.064	0.129	0.167
eated with ORS packets	0.387	0.040	292	400	1.429	0.103	0.307	0.467
bught medical treatment	0.380	0.041	292	400	1.502	0.108	0.297	0.462
accination card seen	0.341	0.043	377	523	1.901	0.127	0.254	0.427
eceived BCG vaccination eceived DPT vaccination (3 doses)	0.971 0.906	0.011 0.023	377 377	523 523	1.374 1.642	0.011 0.025	0.949 0.860	0.993 0.952
eceived polio vaccination (3 doses)	0.908	0.023	377	523	1.740	0.025	0.880	0.952
eceived measles vaccination	0.858	0.035	377	523	2.102	0.041	0.788	0.928
eceived all vaccinations	0.848	0.035	377	523	2.034	0.041	0.778	0.918
eight-for-age (-2SD)	0.374	0.022	970	1291	2.037	0.059	0.330	0.419
eight-for-height (-2SD)	0.112	0.012	970	1291	1.810	0.108	0.088	0.136
eight-for-age (-2SD)	0.295	0.020	970	1291	2.034	0.069	0.254	0.335
ody Mass Index (BMI) < 18.5	0.227	0.017 0.027	2603 851	3112 1118	2.085 2.371	0.075 0.055	0.193 0.447	0.261 0.557
evalence of anemia (children 6-59 months) evalence of anemia (women 15-49)	0.502 0.420	0.027	2700	3252	2.089	0.055	0.447	0.557
ccepting attitudes towards people with HIV	0.539	0.020	4823	5470	2.756	0.037	0.499	0.578
ad an HIV test and received result in past 12 months	0.025	0.003	5667	6779	1.503	0.124	0.019	0.032
ver experience of sexual violence	0.152	0.013	1802	1717	1.492	0.083	0.126	0.177
nysical or sexual violence by any husband	0.354	0.028	1529	1370	2.303	0.080	0.298	0.410
hysical/sexual violence by husband in 12 months	0.169	0.012	1529	1370	1.283	0.073	0.144	0.193
otal fertility rate (TFR) 3 years	2.542	0.160	na	18578	2.390	0.063	2.222	2.862
eonatal Mortality rate	34.953	3.696	4615	5909 5916	1.364	0.106	27.562	42.344
ost-neonatal Mortality rate fant Mortality rate	17.685 52.638	2.200 4.261	4619 4619	5916 5916	1.145 1.261	0.124 0.081	13.284 44.117	22.085 61.159
hild Mortality rate	10.037	1.741	4619	5923	1.119	0.173	6.555	13.519
nder-five mortality rate	62.147	4.738	4632	5930	1.293	0.076	52.671	71.624
		MEN						
ban residence	0.148	0.007	1921	2218	0.842	0.046	0.134	0.161
teracy	0.828	0.020	1921	2218	2.295	0.024	0.788	0.867
o education econdary education or higher	0.166 0.653	0.021 0.023	1921 1921	2218 2218	2.472 2.116	0.126 0.035	0.124 0.607	0.208
econdary education of higher	0.853	0.023	1921	2218	1.257	0.035	0.807	0.895
urrently married/in union	0.627	0.014	1921	2218	1.256	0.022	0.599	0.655
ad sexual intercourse before age 18	0.186	0.016	1441	1679	1.555	0.086	0.154	0.218
lows any contraceptive method	0.999	0.001	1177	1390	0.838	0.001	0.998	1.001
ow any modern method	0.999	0.001	1177	1390	0.838	0.001	0.998	1.001
ant no more children	0.677	0.020	1177	1390	1.494	0.030	0.636	0.718
ant to delay birth at least 2 years	0.171	0.015	1177	1390	1.338	0.086	0.142	0.200
eal family size ad 2+ sexual partners in past 12 months	2.285	0.041 0.006	1917 1921	2215 2218	2.168	0.018	2.202	2.367
ad 2+ sexual partners in past 12 months ondom use at last sex	0.042 0.218	0.006	1921 74	2218 93	1.224 1.031	0.134 0.229	0.031 0.118	0.053 0.317
ostinence among youth (Never had sex)	0.218	0.050	642	93 712	1.426	0.229	0.118	0.317
exually active in past 12 months among never-married youth	0.145	0.024	642	712	1.217	0.117	0.111	0.178
aid for sexual intercourse in last 12 months	0.017	0.004	1921	2218	1.326	0.233	0.009	0.024
ad HIV test and received result in past 12 months	0.072	0.008	1921	2218	1.387	0.114	0.056	0.088
ccepting attitudes towards people with HIV	0.445	0.022	1866	2138	1.925	0.050	0.401	0.490

#### Table B.8 Sampling errors for Eastern region, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
	Value	error	Unweighted	Weighted	effect	error		
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOM	EN					
rban residence	0.122	0.004	3019	3057	0.657	0.032	0.115	0.130
iteracy	0.719	0.039	3019	3057	4.804	0.055	0.640	0.797
lo education econdary education or higher	0.310 0.503	0.034 0.034	3019 3019	3057 3057	3.987 3.688	0.108 0.067	0.243 0.436	0.378 0.570
et attendance ratio	0.916	0.034	1434	1452	1.976	0.017	0.885	0.946
lever married	0.227	0.014	3019	3057	1.829	0.061	0.199	0.255
Currently married (in union)	0.750	0.013	3019	3057	1.707	0.018	0.723	0.777
farried before age 20	0.598	0.028	2327	2386	2.782	0.047	0.542	0.655
lad sexual intercourse before age 18	0.393	0.033	2327	2386	3.230	0.083	0.327	0.458
Currently pregnant	0.055	0.008	3019	3057	1.883	0.142	0.039	0.070
Children ever born	1.929	0.086	3019	3057	2.420	0.045	1.757	2.101
hildren surviving hildren ever born to women 40-49	1.776 4.025	0.078 0.159	3019 552	3057 533	2.444 1.695	0.044 0.040	1.620 3.707	1.932 4.344
nowing any contraceptive method	1.000	0.000	2213	2293	0.575	0.000	1.000	1.00
nowing any contraceptive method	1.000	0.000	2213	2293	0.575	0.000	1.000	1.000
Currently using any contraceptive method	0.464	0.020	2213	2293	1.877	0.043	0.424	0.503
currently using a modern method	0.362	0.022	2213	2293	2.163	0.061	0.318	0.406
urrently using a traditional method	0.101	0.013	2213	2293	1.953	0.124	0.076	0.126
Currently using pill	0.058	0.008	2213	2293	1.691	0.145	0.041	0.075
currently using condom	0.034	0.007	2213	2293	1.748	0.197	0.021	0.048
Currently using injectable	0.120	0.010	2213	2293	1.512	0.087	0.099	0.14
Currently using female sterilization	0.109	0.023	2213	2293	3.495	0.213	0.062	0.15
Current using withdrawal	0.078	0.012	2213	2293	2.028	0.148	0.055	0.10
Currently using rhythm	0.023 0.671	0.004 0.042	2213 814	2293 841	1.321	0.184 0.062	0.014	0.03
lsed public sector source Vant no more children	0.671	0.042	2213	2293	2.530 1.026	0.062	0.587 0.677	0.75
Vant to delay next birth at least 2 years	0.697	0.010	2213	2293	1.026	0.062	0.677	0.71
deal number of children	2.115	0.065	3013	3054	4.613	0.031	1.985	2.24
Nothers protected against tetanus for last birth	0.836	0.017	958	999	1.463	0.021	0.802	0.87
lirths with skilled attendant at delivery	0.420	0.038	1207	1269	2.439	0.090	0.345	0.49
lad diarrhea in the past 2 weeks	0.116	0.010	1153	1210	1.139	0.090	0.095	0.137
reated with ORS packets	0.454	0.068	134	140	1.586	0.150	0.318	0.591
ought medical treatment	0.400	0.058	134	140	1.402	0.145	0.285	0.516
accination card seen	0.407	0.055	218	229	1.689	0.136	0.297	0.518
Received BCG vaccination	0.981	0.011	218	229	1.230	0.011	0.959	1.004
Received DPT vaccination (3 doses)	0.938 0.941	0.020	218 218	229 229	1.236 1.261	0.021 0.021	0.899 0.901	0.978 0.980
Received polio vaccination (3 doses) Received measles vaccination	0.941	0.020 0.042	218	229	1.914	0.021	0.796	0.96
Received all vaccinations	0.875	0.042	218	229	1.892	0.047	0.794	0.96
leight-for-age (-2SD)	0.370	0.031	563	596	2.214	0.085	0.307	0.43
Veight-for-height (-2SD)	0.102	0.017	563	596	1.927	0.164	0.069	0.136
Veight-for-age (-2SD)	0.254	0.027	563	596	2.147	0.106	0.200	0.308
ody Mass Index (BMI) < 18.5	0.162	0.025	1365	1376	2.521	0.156	0.111	0.212
Prevalence of anemia (children 6-59 months)	0.472	0.045	510	534	2.885	0.094	0.383	0.562
Prevalence of anemia (women 15-49)	0.374	0.030	1452	1465	2.371	0.081	0.314	0.435
ccepting attitudes towards people with HIV	0.496	0.025	2780	2798	2.659	0.051	0.445	0.546
lad an HIV test and received result in past 12 months	0.023	0.004	3019	3057	1.647	0.197	0.014	0.032
iver experience of sexual violence	0.157	0.018	1017	954	1.566	0.114	0.121	0.193
hysical or sexual violence by any husband hysical/sexual violence by husband in 12 months	0.322 0.152	0.040 0.020	817 817	714 714	2.447 1.569	0.124 0.130	0.242 0.113	0.402 0.192
otal fertility rate (TFR) 3 years	2.463	0.020	na	8486	2.096	0.130	2.087	2.840
leonatal Mortality rate	30.102	4.038	2524	2607	1.060	0.134	22.026	38.178
Post-neonatal Mortality rate	17.307	3.508	2525	2608	1.350	0.203	10.291	24.323
nfant Mortality rate	47.409	6.259	2525	2608	1.298	0.132	34.891	59.92
child Mortality rate	7.737	2.161	2530	2614	1.175	0.279	3.415	12.05
nder-five mortality rate	54.778	7.297	2531	2614	1.424	0.133	40.185	69.37
		MEI	٧					
rban residence	0.136	0.009	978	996	0.844	0.068	0.118	0.15
iteracy	0.908	0.003	978	996	2.309	0.024	0.865	0.95
lo education	0.086	0.021	978	996	2.500	0.261	0.041	0.13
econdary education or higher	0.721	0.030	978	996	2.117	0.042	0.661	0.78
ever married	0.379	0.020	978	996	1.318	0.054	0.338	0.41
urrently married/in union	0.609	0.019	978	996	1.187	0.030	0.572	0.64
ad sexual intercourse before age 18	0.154	0.019	730	766	1.431	0.124	0.116	0.19
nows any contraceptive method	0.998	0.002	595	607	0.985	0.002	0.995	1.00
now any modern method	0.998	0.002	595	607	0.985	0.002	0.995	1.00
/ant no more children	0.677	0.027	595	607	1.392	0.039	0.623	0.73
/ant to delay birth at least 2 years	0.183	0.021	595	607	1.318	0.114	0.141	0.224
leal family size	2.242	0.050	978	996	2.304	0.022	2.141	2.34
ad 2+ sexual partners in past 12 months	0.030	0.007	978	996	1.351	0.246	0.015	0.04
ondom use at last sex bstinence among youth (Never had sex)	0.358 0.784	0.094 0.030	26 338	30 335	0.981 1.344	0.263 0.038	0.170 0.724	0.54 0.84
exually active in past 12 months among never-married youth	0.784 0.149	0.030	338	335	1.344	0.038	0.724	0.84
aid for sexual intercourse in last 12 months	0.149	0.023	978	335 996	1.409	0.153	0.104	0.19
ad HIV test and received result in past 12 months	0.018	0.008	978	996	1.705	0.355	0.005	0.02
ccepting attitudes towards people with HIV	0.500	0.029	966	985	1.814	0.058	0.441	0.558
	2.000	0.020	000			5.000	2	0.000

#### Table B.9 Sampling errors for Central region, Nepal 2011

		Standard	Number	of cases	Design	Relative	Confide	nce limits
/orighte	Value	error	Unweighted	Weighted	effect	error	D 005	D. 00
ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2SI
		WOME						
rban residence	0.202	0.009	3009	4236	1.177	0.043	0.185	0.219
teracy o education	0.596 0.450	0.037 0.033	3009 3009	4236 4236	4.105 3.628	0.062 0.073	0.523 0.384	0.670 0.516
econdary education or higher	0.430	0.029	3009	4236	3.271	0.075	0.332	0.310
et attendance ratio	0.841	0.031	1399	1994	2.713	0.036	0.780	0.902
ever married	0.218	0.013	3009	4236	1.694	0.059	0.192	0.243
urrently married (in union)	0.758 0.710	0.013 0.019	3009 2377	4236 3340	1.706 2.065	0.018 0.027	0.731 0.671	0.785
arried before age 20 ad sexual intercourse before age 18	0.710	0.019	2377	3340	2.065	0.027	0.671	0.748 0.580
urrently pregnant	0.051	0.006	3009	4236	1.461	0.115	0.039	0.062
hildren ever born	2.137	0.087	3009	4236	2.336	0.041	1.963	2.31
hildren surviving	1.934	0.076	3009	4236	2.292	0.039	1.783	2.086
hildren ever born to women 40-49	4.159	0.175	566	776	1.940	0.042	3.809	4.50
nowing any contraceptive method now a modern method	1.000 1.000	0.000 0.000	2232 2232	3210 3210	na na	0.000 0.000	1.000 1.000	1.000 1.000
urrently using any contraceptive method	0.547	0.022	2232	3210	2.082	0.040	0.503	0.59
urrently using a modern method	0.499	0.020	2232	3210	1.919	0.041	0.459	0.540
urrently using a traditional method	0.048	0.006	2232	3210	1.337	0.127	0.035	0.060
urrently using pill	0.034	0.005	2232	3210	1.290	0.145	0.024	0.044
urrently using condom	0.040	0.005	2232	3210	1.239	0.129	0.029	0.050
urrently using injectable	0.090	0.009 0.015	2232 2232	3210 3210	1.520	0.102 0.072	0.072	0.10
urrently using female sterilization urrent using withdrawal	0.204 0.037	0.015	2232	3210 3210	1.719 1.330	0.072	0.175 0.026	0.23 0.048
urrently using rhythm	0.037	0.003	2232	3210	1.355	0.144	0.028	0.040
sed public sector source	0.653	0.024	1168	1625	1.688	0.036	0.606	0.70
ant no more children	0.726	0.021	2232	3210	2.223	0.029	0.684	0.768
ant to delay next birth at least 2 years	0.114	0.008	2232	3210	1.122	0.066	0.098	0.12
eal number of children	2.178	0.065	2993	4209	4.180	0.030	2.048	2.30
lothers protected against tetanus for last birth irths with skilled attendant at delivery	0.845 0.359	0.023 0.034	854 1123	1293 1717	1.891 2.221	0.027 0.095	0.800 0.291	0.890 0.42
ad diarrhea in the past 2 weeks	0.339	0.012	1075	1639	1.109	0.081	0.125	0.42
reated with ORS packets	0.360	0.052	152	244	1.337	0.143	0.257	0.463
ought medical treatment	0.277	0.050	152	244	1.376	0.180	0.178	0.377
accination card seen	0.262	0.050	216	345	1.752	0.190	0.163	0.362
eceived BCG vaccination	0.961	0.015	216	345	1.230	0.016	0.930	0.99
eceived DPT vaccination (3 doses) eceived polio vaccination (3 doses)	0.891 0.909	0.032 0.032	216 216	345 345	1.620 1.739	0.036 0.035	0.827 0.845	0.950 0.973
eceived measles vaccination	0.846	0.032	216	345	1.956	0.055	0.754	0.93
eceived all vaccinations	0.831	0.046	216	345	1.870	0.055	0.739	0.923
eight-for-age (-2SD)	0.382	0.025	500	767	1.692	0.066	0.331	0.433
eight-for-height (-2SD)	0.116	0.017	500	767	1.796	0.148	0.082	0.150
/eight-for-age (-2SD)	0.295	0.023	500	767	1.648	0.077	0.250	0.340
ody Mass Index (BMI) < 18.5 revalence of anemia (children 6-59 months)	0.202 0.439	0.019 0.025	1345 449	1895 674	1.726 1.646	0.093 0.057	0.165 0.389	0.240 0.489
revalence of anemia (children 0-39 months)	0.439	0.025	1406	1980	1.650	0.063	0.286	0.46
ccepting attitudes towards people with HIV	0.526	0.026	2539	3335	2.588	0.049	0.475	0.577
ad an HIV test and received result in past 12 months	0.019	0.003	3009	4236	1.185	0.157	0.013	0.024
ver experience of sexual violence	0.133	0.014	982	1375	1.313	0.107	0.105	0.16
hysical or sexual violence by any husband	0.288	0.030	823	1074	1.907	0.105	0.227	0.348
hysical/sexual violence by husband in 12 months otal fertility rate (TFR) 3 years	0.134 2.502	0.013 0.236	823 na	1074 11794	1.067 2.533	0.095 0.094	0.108 2.030	0.159 2.974
eonatal Mortality rate	2.502 36.439	0.236	na 2474	3672	2.533	0.094	2.030	47.084
ost-neonatal Mortality rate	15.125	2.661	2474	3677	1.056	0.176	9.803	20.448
fant Mortality rate	51.565	5.586	2477	3677	1.200	0.108	40.392	62.737
hild Mortality rate	8.383	2.199	2476	3673	1.167	0.262	3.985	12.78
nder-five mortality rate	59.515	6.046	2479	3678	1.223	0.102	47.423	71.60
		MEN	1					
ban residence	0.258	0.013	1002	1448	0.935	0.050	0.232	0.284
ieracy	0.826	0.026	1002	1448	2.135	0.031	0.775	0.87
o education	0.174	0.027	1002	1448	2.270	0.156	0.120	0.22
econdary education or higher	0.631	0.030	1002	1448	1.960	0.047	0.572	0.69
ever married urrently married/in union	0.328 0.656	0.018 0.019	1002 1002	1448 1448	1.223 1.289	0.055 0.030	0.292 0.617	0.36 0.69
ad sexual intercourse before age 18	0.030	0.019	792	1139	1.504	0.117	0.132	0.03
nows any contraceptive method	0.998	0.002	654	950	1.094	0.002	0.994	1.00
now any modern method	0.998	0.002	654	950	1.094	0.002	0.994	1.002
ant no more children	0.678	0.025	654	950	1.390	0.038	0.627	0.72
ant to delay birth at least 2 years	0.155	0.018	654	950	1.244	0.114	0.120	0.19
eal family size ad 2+ sexual partners in past 12 months	2.242 0.046	0.054 0.007	1002 1002	1448 1448	2.235 1.084	0.024 0.157	2.134 0.031	2.349 0.060
ondom use at last sex	0.046	0.007	40	66	1.084	0.157	0.031	0.06
bstinence among youth (Never had sex)	0.230	0.031	288	417	1.249	0.040	0.713	0.836
exually active in past 12 months among never-married youth	0.141	0.025	288	417	1.209	0.176	0.092	0.19
aid for sexual intercourse in last 12 months	0.021	0.005	1002	1448	1.135	0.245	0.011	0.03
ad HIV test and received result in past 12 months	0.073	0.011	1002	1448	1.398	0.158	0.050	0.090
ccepting attitudes towards people with HIV	0.445	0.027	964	1376	1.672	0.060	0.391	0.498

### Table B.10 Sampling errors for Western region, Nepal 2011

		Standard	Number		Design	Relative	Confide	nce limits
(aichle	Value	error	Unweighted	Weighted	effect	error	D 205	D.00
'ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2S
		WOME	=N					
rban residence	0.112	0.004	2304	2660	0.672	0.039	0.103	0.12
iteracy lo education	0.770 0.323	0.027 0.023	2304 2304	2660 2660	3.040 2.351	0.035 0.071	0.716 0.277	0.823
econdary education or higher	0.481	0.026	2304	2660	2.451	0.053	0.430	0.532
let attendance ratio	0.909	0.018	959	1120	1.837	0.020	0.872	0.94
lever married	0.204	0.009	2304	2660	1.044	0.043	0.187	0.222
Currently married (in union)	0.764	0.008	2304	2660	0.910	0.011	0.747	0.78
Aarried before age 20	0.722	0.017	1809	2087	1.652	0.024	0.688	0.75
lad sexual intercourse before age 18	0.499	0.018	1809	2087	1.501	0.035	0.464	0.53
Currently pregnant Children ever born	0.035 2.041	0.004 0.049	2304 2304	2660 2660	1.031 1.252	0.113 0.024	0.027 1.942	0.04 2.14
Children surviving	1.882	0.049	2304	2660	1.136	0.024	1.942	1.96
Children ever born to women 40-49	4.017	0.152	409	503	1.540	0.038	3.713	4.32
Inowing any contraceptive method	1.000	0.000	1721	2031	na	0.000	1.000	1.00
Know a modern method	1.000	0.000	1721	2031	na	0.000	1.000	1.00
Currently using any contraceptive method	0.461	0.024	1721	2031	2.034	0.053	0.412	0.51
Currently using a modern method	0.387	0.025	1721	2031	2.117	0.064	0.337	0.43
Currently using a traditional method	0.074	0.009	1721	2031	1.471	0.126	0.055	0.09
Currently using pill	0.039	0.006	1721	2031	1.237	0.149	0.027	0.05
Currently using condom	0.039	0.006	1721	2031	1.173	0.140	0.028	0.05
Currently using injectable	0.058	0.007	1721	2031	1.197	0.117	0.044	0.07
Currently using female sterilization	0.135	0.015	1721	2031	1.839	0.112	0.104	0.16
Current using withdrawal	0.066	0.009	1721	2031	1.504	0.136	0.048	0.08
Currently using rhythm Jsed public sector source	0.008 0.690	0.002 0.027	1721 719	2031 801	1.193 1.552	0.330 0.039	0.003 0.637	0.01 0.74
Vant no more children	0.690	0.027	1721	2031	1.552	0.039	0.637	0.74
Vant to delay next birth at least 2 years	0.148	0.013	1721	2031	1.288	0.075	0.126	0.15
deal number of children	2.026	0.033	2300	2654	2.500	0.016	1.961	2.09
Nothers protected against tetanus for last birth	0.788	0.041	643	818	2.666	0.052	0.706	0.87
Births with skilled attendant at delivery	0.378	0.042	782	1007	2.348	0.112	0.293	0.46
lad diarrhea in the past 2 weeks	0.157	0.022	751	965	1.664	0.138	0.113	0.20
reated with ORS packets	0.299	0.053	117	151	1.241	0.177	0.194	0.40
Sought medical treatment	0.425	0.067	117	151	1.538	0.157	0.291	0.55
accination card seen	0.406	0.052	139	187	1.325	0.127	0.303	0.50
Received BCG vaccination	0.973	0.014	139	187	1.107	0.014	0.945	1.00
Received DPT vaccination (3 doses)	0.940	0.030	139	187	1.602	0.032	0.880	1.00
Received polio vaccination (3 doses) Received measles vaccination	0.946 0.912	0.030 0.031	139 139	187 187	1.690 1.393	0.032 0.034	0.886 0.850	1.00 0.97
Received measures vaccination	0.912	0.031	139	187	1.393	0.034	0.850	0.97
leight-for-age (-2SD)	0.372	0.031	361	463	1.633	0.082	0.313	0.43
Veight-for-height (-2SD)	0.104	0.020	361	463	1.818	0.188	0.065	0.14
Veight-for-age (-2SD)	0.232	0.036	361	463	2.207	0.155	0.160	0.30
Body Mass Index (BMI) < 18.5	0.140	0.019	1089	1265	1.849	0.138	0.101	0.17
Prevalence of anemia (children 6-59 months)	0.455	0.045	316	408	2.241	0.099	0.365	0.54
Prevalence of anemia (women 15-49)	0.345	0.022	1128	1314	1.568	0.064	0.301	0.38
ccepting attitudes towards people with HIV	0.529	0.026	2108	2398	2.413	0.050	0.476	0.58
lad an HIV test and received result in past 12 months	0.027	0.005	2304	2660	1.461	0.182	0.017	0.03
ver experience of sexual violence	0.064	0.010	747	445	1.167	0.163	0.043	0.08
Physical or sexual violence by any husband	0.203	0.021	616	335	1.316	0.105	0.160	0.24
Physical/sexual violence by husband in 12 months Total fertility rate (TFR) 3 years	0.105 2.493	0.015 0.163	616	335	1.225	0.144 0.065	0.075 2.167	0.13 2.81
otal fertility rate (TFR) 3 years	2.493 36.942	0.163 5.350	na 1679	1079 2067	1.507 1.143	0.065 0.145	2.167 26.241	2.81 47.64
Post-neonatal Mortality rate	36.942 15.808	5.350 2.737	1679	2067 2071	0.936	0.145	10.334	21.28
nfant Mortality rate	52.751	5.690	1682	2073	1.025	0.108	41.370	64.13
Child Mortality rate	4.016	1.723	1679	2073	1.183	0.429	0.571	7.46
Inder-five mortality rate	56.555	5.783	1683	2074	1.000	0.102	44.988	68.12
	-	MEN					-	
Irban rapidanaa	0.400			700	0 700	0.074	0.444	0.4.4
Irban residence iteracy	0.130 0.909	0.009 0.019	706 706	798 798	0.723 1.754	0.071 0.021	0.111 0.871	0.14 0.94
lo education	0.909	0.019	706	798	1.754	0.021	0.871	0.94
Secondary education or higher	0.694	0.020	706	798	1.808	0.045	0.632	0.14
lever married	0.376	0.023	706	798	1.266	0.061	0.330	0.42
Currently married/in union	0.604	0.024	706	798	1.289	0.039	0.556	0.65
lad sexual intercourse before age 18	0.248	0.032	516	585	1.676	0.129	0.184	0.31
nows any contraceptive method	1.000	0.000	423	482	na	0.000	1.000	1.00
now any modern method	1.000	0.000	423	482	na	0.000	1.000	1.00
Vant no more children	0.714	0.027	423	482	1.240	0.038	0.660	0.76
Vant to delay birth at least 2 years	0.167	0.023	423	482	1.271	0.138	0.121	0.21
deal family size	2.308	0.063	702	796	1.248	0.027	2.182	2.43
lad 2+ sexual partners in past 12 months	0.034	0.007	706	798	1.082	0.218	0.019	0.04
Condom use at last sex	0.257	0.087	28	27	1.037	0.339	0.083	0.43
bstinence among youth (Never had sex)	0.779	0.035	250	271	1.348	0.045	0.708	0.85
Sexually active in past 12 months among never-married youth	0.170	0.030	250	271	1.262	0.177	0.110	0.23
Paid for sexual intercourse in last 12 months	0.010	0.004	706	798	1.012	0.381	0.002	0.01
lad HIV test and received result in past 12 months ccepting attitudes towards people with HIV	0.084	0.015	706	798 785	1.394	0.173	0.055	0.11
ccepting attitudes towards beoble with HIV	0.423	0.030	697	785	1.588	0.070	0.363	0.48

		Standard	Number	of cases	Design	Relative	Confide	nce limits
/ariable	Value	error (SE)	Unweighted	Weighted (WN)	effect (DEFT)	error (SE/R)	R-2SE	R+2S
	(R)	(SE) WOME	(N) =N	(0010)	(DEFT)	(3E/R)	R-23E	R+23
rban residence	0.090	0.005	2275	1478	0.831	0.055	0.080	0.10
iteracy	0.622	0.000	2275	1478	2.934	0.048	0.562	0.68
o education	0.478	0.029	2275	1478	2.754	0.060	0.420	0.53
econdary education or higher	0.356	0.028	2275	1478	2.774	0.078	0.300	0.412
et attendance ratio	0.923	0.013	1228	816	1.704	0.015	0.896	0.950
lever married	0.191	0.013	2275	1478	1.588	0.069	0.165	0.21
urrently married (in union)	0.777	0.013	2275	1478	1.487	0.017	0.751	0.80
larried before age 20	0.789	0.020	1758	1145	2.079	0.026	0.749	0.830
ad sexual intercourse before age 18	0.578	0.024	1758	1145	2.061	0.042	0.529	0.620
urrently pregnant	0.065	0.006	2275	1478	1.169	0.093	0.053	0.07
hildren ever born	2.371	0.091	2275	1478	1.946	0.038	2.188	2.554
hildren surviving	2.057	0.072	2275	1478	1.867	0.035	1.913	2.20
hildren ever born to women 40-49	5.036	0.192	333	214	1.567	0.038	4.652	5.420
nowing any contraceptive method	0.999	0.001	1755 1755	1149	1.107	0.001 0.001	0.998 0.998	1.00
now a modern method	0.999	0.001		1149 1149	1.107			1.00
currently using any contraceptive method	0.469	0.024	1755		1.988	0.051	0.421	0.510
currently using a modern method	0.428	0.022	1755	1149	1.859	0.051	0.384	0.472
urrently using a traditional method	0.040	0.006	1755	1149	1.361	0.158	0.028	0.05
urrently using pill	0.031	0.005	1755	1149	1.281	0.172	0.020	0.04
urrently using condom	0.054	0.007	1755	1149 1149	1.230	0.123	0.041	0.06
urrently using injectable	0.093	0.011	1755		1.567	0.117	0.071	0.11
currently using female sterilization	0.115	0.015	1755	1149	1.955	0.129	0.086	0.14
	0.034	0.006	1755	1149	1.395	0.177	0.022	0.04
urrently using rhythm	0.006	0.002	1755	1149 499	0.977	0.291	0.003	0.01
sed public sector source	0.743	0.028	781		1.765	0.037	0.688	0.79
/ant no more children /ant to delay next birth at least 2 years	0.722	0.012 0.009	1755 1755	1149 1149	1.168 1.106	0.017 0.063	0.697 0.132	0.74 0.17
	0.151							
leal number of children	2.216	0.049	2266	1473	2.851	0.022	2.119	2.31
lothers protected against tetanus for last birth	0.721	0.042	896	598	2.844	0.058	0.637	0.80
irths with skilled attendant at delivery	0.287	0.033	1193	793	2.357	0.116	0.220	0.35
ad diarrhea in the past 2 weeks	0.146	0.016	1139	760	1.499	0.110	0.114	0.178
reated with ORS packets	0.458	0.050	167	111	1.238	0.109	0.358	0.558
ought medical treatment	0.439	0.054	167	111	1.336	0.123	0.331	0.54
accination card seen	0.282	0.043	210	138	1.355	0.150	0.197	0.36
teceived BCG vaccination	0.914	0.027	210	138	1.415	0.030	0.860	0.96
teceived DPT vaccination (3 doses)	0.877	0.035	210	138	1.545	0.040	0.808	0.94
teceived polio vaccination (3 doses)	0.875	0.037	210	138	1.612	0.042	0.802	0.94
teceived measles vaccination	0.874	0.033	210	138	1.435	0.037	0.808	0.93
teceived all vaccinations	0.847	0.038	210	138	1.552	0.045	0.770	0.92
leight-for-age (-2SD)	0.503	0.035	557	373	2.366	0.070	0.433	0.57
Veight-for-height (-2SD)	0.113	0.014	557 557	373 373	1.550	0.125	0.085	0.14
Veight-for-age (-2SD)	0.369 0.193	0.031 0.015	1019	661	2.023	0.085	0.307 0.163	0.432
ody Mass Index (BMI) < 18.5 revalence of anemia (children 6-59 months)	0.193	0.033	504	336	1.221 2.042	0.078 0.069	0.412	0.22
revalence of anemia (women 15-49)	0.478	0.033	1083	704	1.560	0.063	0.316	0.34
	0.362	0.025	1922	1255	2.260	0.063	0.347	0.44
ccepting attitudes towards people with HIV ad an HIV test and received result in past 12 months	0.397	0.025	2275	1478	1.638	0.160	0.030	0.444
ver experience of sexual violence	0.044	0.007	772	665	1.441	0.137	0.030	0.050
hysical or sexual violence by any husband	0.315	0.026	674	526	1.435	0.082	0.263	0.13
hysical/sexual violence by husband in 12 months		0.026	674	526	1.435	0.101	0.129	0.30
otal fertility rate (TFR) 3 years	0.161							3.60
	3.180	0.213	na 2442	4121	1.750	0.067	2.754	
leonatal Mortality rate	33.766 23.973	5.066 3.384	2442 2445	1614 1616	1.371	0.150	23.635 17.204	43.89 30.74
Post-neonatal Mortality rate	23.973	3.384		1616 1616	1.079	0.141		
nfant Mortality rate Child Mortality rate	57.739 16.048	5.984 3.167	2445 2454	1616 1622	1.282 1.140	0.104 0.197	45.771 9.714	69.70
	72.861	3.167 6.910	2454 2457	1622	1.140	0.197	9.714 59.040	22.38 86.68
nder-five mortality rate	72.861			1624	1.287	0.095	59.040	86.68
		ME						
rban residence	0.101	0.008	781	493	0.777	0.083	0.084	0.11
iteracy	0.841	0.023	781	493	1.754	0.027	0.795	0.88
lo education	0.194	0.025	781	493	1.791	0.131	0.144	0.24
econdary education or higher	0.588	0.030	781	493	1.727	0.052	0.527	0.64
lever married	0.295	0.017	781	493	1.032	0.057	0.261	0.32
urrently married/in union	0.690	0.018	781	493	1.061	0.025	0.655	0.72
ad sexual intercourse before age 18	0.210	0.024	598	375	1.461	0.116	0.161	0.25
nows any contraceptive method	0.996	0.003	538	340	1.042	0.003	0.990	1.00
now any modern method	0.996	0.003	538	340	1.042	0.003	0.990	1.00
/ant no more children	0.711	0.025	538	340	1.277	0.035	0.661	0.76
/ant to delay birth at least 2 years	0.218	0.021	538	340	1.197	0.098	0.176	0.26
leal family size	2.324	0.041	781	493	1.582	0.018	2.242	2.40
ad 2+ sexual partners in past 12 months	0.040	0.008	781	493	1.140	0.201	0.024	0.05
ondom use at last sex	0.220	0.074	31	20	0.982	0.338	0.071	0.36
bstinence among youth (Never had sex)	0.733	0.047	211	134	1.539	0.064	0.639	0.82
exually active in past 12 months among never-married youth	0.162	0.029	211	134	1.123	0.176	0.105	0.21
aid for sexual intercourse in last 12 months	0.008	0.003	781	493	1.002	0.398	0.002	0.01
	0.066	0.012	781	493	1.380	0.187	0.041	0.09
ad HIV test and received result in past 12 months ccepting attitudes towards people with HIV	0.573	0.036	737	464	1.985	0.063	0.500	0.64

		Standard	Number of cases		Design	Relative	Confidence limits	
/ariable	Value (R)	error (SE)	Unweighted (N)	Weighted (WN)	effect (DEFT)	error (SE/R)	R-2SE	R+2SI
	(14)	WOMI		(****)	(DEIT)	(OL/IV)	IN-20L	117201
Irban residence	0.127	0.007	2067	1242	0.977	0.056	0.113	0.142
iteracy	0.612	0.027	2067	1242	2.475	0.043	0.559	0.665
lo education	0.503	0.025	2067	1242	2.240	0.049	0.453	0.552
econdary education or higher	0.342	0.032	2067	1242	3.081	0.094	0.277	0.406
et attendance ratio	0.937	0.012	1133	705	1.743	0.013	0.912	0.961
lever married	0.214	0.015	2067	1242	1.673	0.070	0.184	0.245
urrently married (in union)	0.744	0.016	2067	1242	1.627	0.021	0.713	0.776
larried before age 20	0.813	0.014	1613	963	1.439	0.017	0.785	0.840
ad sexual intercourse before age 18	0.625	0.022	1613	963	1.839	0.035	0.580	0.669
urrently pregnant	0.040	0.004	2067	1242	0.933	0.100	0.032	0.048
hildren ever born	2.372	0.075	2067	1242	1.575	0.032	2.221	2.522
hildren surviving	2.073	0.061	2067	1242	1.513	0.029	1.951	2.19
hildren ever born to women 40-49	4.934	0.165	356	204	1.547	0.033	4.604	5.264
nowing any contraceptive method	0.999	0.001	1539	925	0.988	0.001	0.998	1.001
now a modern method	0.999	0.001	1539	925	0.988	0.001	0.998	1.001
urrently using any contraceptive method	0.519	0.026	1539	925	2.003	0.049	0.468	0.570
urrently using a modern method	0.471	0.027	1539	925	2.139	0.058	0.417	0.526
urrently using a traditional method	0.048	0.008	1539	925	1.376	0.156	0.033	0.063
urrently using pill	0.045	0.012	1539	925	2.185	0.256	0.022	0.068
urrently using condom	0.075	0.008	1539	925	1.254	0.113	0.058	0.09
urrently using injectable	0.101	0.015	1539	925	1.988	0.151	0.070	0.13
urrently using female sterilization	0.160	0.024	1539	925	2.585	0.151	0.111	0.208
urrent using withdrawal	0.047	0.008	1539	925	1.409	0.162	0.032	0.062
urrently using rhythm	0.002	0.001	1539	925	1.329	0.848	0.000	0.004
sed public sector source	0.800	0.032	711	441	2.154	0.040	0.735	0.864
/ant no more children	0.739	0.016	1539	925	1.451	0.022	0.706	0.77
/ant to delay next birth at least 2 years	0.128	0.012	1539	925	1.442	0.096	0.104	0.153
leal number of children	2.152	0.030	2065	1240	1.906	0.014	2.091	2.213
Nothers protected against tetanus for last birth	0.859	0.020	728	440	1.554	0.023	0.819	0.899
irths with skilled attendant at delivery	0.307	0.035	1001	605	2.096	0.113	0.237	0.376
lad diarrhea in the past 2 weeks	0.114	0.014	936	565	1.340	0.122	0.086	0.141
reated with ORS packets	0.463	0.046	109	64	0.934	0.099	0.372	0.555
ought medical treatment	0.520	0.060	109	64	1.244	0.116	0.400	0.640
accination card seen	0.397	0.052	162	101	1.386	0.132	0.292	0.502
eceived BCG vaccination	1.000	0.000	162	101	na	0.000	1.000	1.000
eceived DPT vaccination (3 doses)	0.971	0.015	162	101	1.168	0.016	0.941	1.001
eceived polio vaccination (3 doses)	0.971	0.015	162	101	1.168	0.016	0.941	1.001
eceived measles vaccination	0.949	0.018	162	101	1.090	0.019	0.912	0.986
eceived all vaccinations	0.937	0.021	162	101	1.122	0.022	0.895	0.979
leight-for-age (-2SD)	0.464	0.033	449	277	1.860	0.071	0.399	0.530
/eight-for-height (-2SD)	0.109	0.016	449	277	1.513	0.145	0.078	0.141
/eight-for-age (-2SD)	0.326	0.026	449	277	1.688	0.080	0.274	0.377
ody Mass Index (BMI) < 18.5	0.239	0.017	976	603	1.256	0.071	0.205	0.273
revalence of anemia (children 6-59 months)	0.494	0.040	401	246	2.342	0.082	0.413	0.574
revalence of anemia (women 15-49)	0.359	0.042	1017	624	2.841	0.118	0.274	0.443
ccepting attitudes towards people with HIV	0.447	0.028	1946	1159	2.513	0.063	0.390	0.503
ad an HIV test and received result in past 12 months	0.064	0.014	2067	1242	2.521	0.211	0.037	0.092
ver experience of sexual violence	0.096	0.019	679	759	1.663	0.196	0.058	0.133
hysical or sexual violence by any husband	0.238	0.031	575	576	1.753	0.131	0.176	0.30
hysical/sexual violence by husband in 12 months	0.152	0.022	575	576	1.479	0.146	0.108	0.197
otal fertility rate (TFR) 3 years	2.796	0.210	na	3461	1.627	0.075	2.376	3.216
eonatal Mortality rate	40.890	6.341	2128	1314	1.373	0.155	28.207	53.572
ost-neonatal Mortality rate	24.341	4.790	2130	1315	1.354	0.197	14.761	33.920
nfant Mortality rate	65.230	7.739	2130	1315	1.372	0.119	49.752	80.709
hild Mortality rate	18.369	3.316	2138	1322	1.096	0.180	11.738	25.000
nder-five mortality rate	82.401	8.543	2140	1323	1.348	0.104	65.315	99.486
		MEI	N					
rban residence	0.144	0.013	654	385	0.973	0.093	0.118	0.171
iteracy	0.890	0.019	654	385	1.511	0.021	0.853	0.92
lo education	0.128	0.020	654	385	1.522	0.155	0.089	0.168
econdary education or higher	0.682	0.023	654	385	1.245	0.033	0.637	0.728
ever married	0.349	0.026	654	385	1.370	0.073	0.298	0.401
urrently married/in union	0.642	0.025	654	385	1.317	0.038	0.593	0.692
ad sexual intercourse before age 18	0.184	0.027	476	278	1.524	0.147	0.130	0.239
nows any contraceptive method	1.000	0.000	418	247	na	0.000	1.000	1.000
now any modern method	1.000	0.000	418	247	na	0.000	1.000	1.000
/ant no more children	0.703	0.026	418	247	1.178	0.037	0.651	0.756
/ant to delay birth at least 2 years	0.144	0.019	418	247	1.099	0.131	0.107	0.182
leal family size	2.206	0.032	654	385	1.310	0.014	2.142	2.26
ad 2+ sexual partners in past 12 months	0.033	0.008	654	385	1.115	0.237	0.017	0.048
ondom use at last sex	0.313	0.135	20	13	1.267	0.430	0.044	0.583
bstinence among youth (Never had sex)	0.814	0.049	214	123	1.834	0.060	0.716	0.91
exually active in past 12 months among never-married youth	0.121	0.041	214	123	1.842	0.341	0.038	0.203
aid for sexual intercourse in last 12 months	0.005	0.003	654	385	0.880	0.469	0.000	0.010
ad HIV test and received result in past 12 months	0.067	0.017	654	385	1.782	0.259	0.032	0.102

na = Not applicable

## **DATA QUALITY TABLES**

# Appendix **C**

#### Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Nepal 2011

140	pai	20		

	Wo	men	Men		
Age	Number	Percent	Number	Percent	
0	550	2.1	566	2.6	
1	480	1.9	490	2.2	
2	508	2.0	561	2.6	
3 4	558	2.2	587	2.7 2.5	
4 5	490 552	1.9 2.2	547 562	2.5	
6	567	2.2	554	2.5	
7	626	2.4	644	2.9	
8	584	2.3	635	2.9	
9	534	2.1	638	2.9	
10	651	2.5	654	3.0	
11	600	2.3	640	2.9	
12 13	638 698	2.5 2.7	707 690	3.2 3.1	
14	594	2.3	579	2.6	
15	587	2.3	503	2.3	
16	524	2.0	450	2.1	
17	573	2.2	472	2.2	
18	602	2.3	472	2.2	
19 20	489 489	1.9	321	1.5 1.4	
20 21	489 516	1.9 2.0	304 301	1.4	
22	525	2.0	356	1.4	
23	439	1.7	219	1.0	
24	463	1.8	270	1.2	
25	430	1.7	267	1.2	
26	443	1.7	267	1.2	
27	448 419	1.7	245	1.1	
28 29	387	1.6 1.5	265 223	1.2 1.0	
30	383	1.5	244	1.1	
31	348	1.4	234	1.1	
32	376	1.5	301	1.4	
33	326	1.3	176	0.8	
34	311	1.2	213	1.0	
35 36	398 345	1.6 1.3	300 228	1.4 1.0	
37	331	1.3	202	0.9	
38	232	0.9	217	1.0	
39	291	1.1	240	1.1	
40	315	1.2	233	1.1	
41	267	1.0	165	0.8	
42 43	300 235	1.2 0.9	215 181	1.0 0.8	
44	192	0.5	162	0.7	
45	278	1.1	244	1.1	
46	195	0.8	158	0.7	
47	188	0.7	185	0.8	
48	166	0.6	182	0.8	
49 50	152 193	0.6 0.8	147 204	0.7 0.9	
50 51	303	1.2	204 201	0.9	
52	274	1.1	188	0.9	
53	201	0.8	151	0.7	
54	207	0.8	171	0.8	
55	205	0.8	160	0.7	
56 57	194	0.8	192	0.9	
57 58	129 137	0.5 0.5	142 176	0.6 0.8	
59	146	0.5	150	0.8	
60	210	0.8	192	0.9	
61	121	0.5	142	0.7	
62	145	0.6	116	0.5	
63	124	0.5	98	0.4	
64 65	111	0.4	105	0.5	
65 66	161 75	0.6 0.3	147 90	0.7 0.4	
67	103	0.3	90	0.4	
68	87	0.3	90	0.4	
69	77	0.3	88	0.4	
70+	872	3.4	795	3.6	
Total	25,667	100.0	21,903	100.0	
. 0.01	20,007	100.0	21,000	100.0	

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

#### Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Nepal 2011

	Household population of	Interviewed w	Percentage of eligible women	
Age group	women age 10-54	Number	Percentage	interviewed
10-14	3,181	na	na	na
15-19	2,775	2,725	21.5	98.2
20-24	2,431	2,387	18.8	98.2
25-29	2,126	2,088	16.4	98.2
30-34	1,744	1,711	13.5	98.1
35-39	1,597	1,554	12.2	97.3
40-44	1,309	1,281	10.1	97.9
45-49	979	953	7.5	97.3
50-54	1,178	na	na	na
15-49	12,961	12,699	100.0	98.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household questionnaire. na = Not applicable

#### Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-54, interviewed men age 15-49 and percent of eligible men who were interviewed (weighted), by five-year age groups, Nepal 2011

	Household population of	Interviewed r	Percentage of eligible men	
Age group	men age 10-54	Number	Percentage	interviewed
10-14	1,598	na	na	na
15-19	1,006	980	24.2	97.5
20-24	691	654	16.2	94.6
25-29	614	584	14.4	95.1
30-34	509	472	11.6	92.6
35-39	585	540	13.3	92.3
40-44	452	435	10.7	96.1
45-49	408	386	9.5	94.6
50-54	471	na	na	na
15-49	4,265	4,051	100.0	95.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the household schedule. na = Not applicable

#### Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Nepal 2011

Subject	Reference group	Percentage with information missing	Number of cases
,		mooning	00000
Birth date Month only Month and year	Births in the 15 years preceding the survey Births in the 15 years preceding the survey	0.02 0.00	17,280 17,280
Age at Death	Deceased children born in the 15 years preceding the survey	0.00	1,189
Age/date at first union <sup>1</sup>	Ever married women age 15-49 Ever married men age 15-49	0.20 0.27	9,966 2,688
Respondent's education	All women age 15-49 All men age 15-49	0.00 0.00	12,674 4,121
Diarrhea in last 2 weeks	Living children 0-59 months	0.56	5,140
<b>Anthropometry</b> Height Weight Height or weight	Living children age 0-59 months (from the household questionnaire)	2.58 2.33 2.58	2,582 2,582 2,582
<b>Anemia</b> Children Women	Living children age 6-59 months (from the household questionnaire) All women from the household questionnaire	5.70 3.47	2,340 6,349

#### Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Nepal 2011

Calendar	I	Number of births			Percentage with complete birth date <sup>1</sup>			Sex ratio at birth <sup>2</sup>			Calendar year ratio <sup>3</sup>		
year	L	D	Т	L	D	Т	L	D	Т	L	D	Т	
2068	26	2	29	100.0	100.0	100.0	123.2	0.0	103.1	na	na	na	
2067	1,011	38	1,049	100.0	100.0	100.0	103.6	94.4	103.3	na	na	na	
2066	989	35	1,025	100.0	100.0	100.0	100.6	238.0	103.5	97.8	62.5	95.9	
2065	1,013	75	1,088	100.0	100.0	100.0	107.5	133.2	109.1	96.9	166.1	99.8	
2064	1,101	55	1,156	100.0	100.0	100.0	104.6	70.7	102.7	109.8	89.6	108.6	
2063	994	48	1,042	100.0	100.0	100.0	115.1	78.7	113.1	93.2	85.1	92.8	
2062	1,032	57	1,089	100.0	100.0	100.0	101.2	150.7	103.3	98.4	87.5	97.8	
2061	1,102	83	1,186	99.8	99.4	99.7	109.1	70.5	105.8	101.7	119.1	102.8	
2060	1,136	83	1,219	100.0	100.0	100.0	103.8	162.8	106.9	101.3	96.1	100.9	
2059	1,142	89	1,231	100.0	100.0	100.0	104.2	121.9	105.4	105.6	103.1	105.4	
2064-2068	4,141	206	4,347	100.0	100.0	100.0	104.2	112.7	104.6	na	na	na	
2059-2063	5,406	360	5,767	100.0	99.9	99.9	106.4	111.8	106.8	na	na	na	
2054-2058	5,488	516	6,004	100.0	100.0	100.0	109.9	111.7	110.1	na	na	na	
2049-2053	4,628	561	5,189	99.9	99.8	99.9	106.3	103.0	105.9	na	na	na	
<2049	4,582	942	5,524	99.8	99.4	99.8	102.4	111.6	103.9	na	na	na	
All	24,245	2,586	26,831	99.9	99.7	99.9	106.0	109.8	106.4	na	na	na	

na = Not applicable <sup>1</sup> Both year and month of birth given <sup>2</sup> (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively <sup>3</sup> [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Nepal 2011

Age at death	Numb	er of years p	receding the	survey	Total
(days)	0-4	5-9	10-14	15-19	0-19
<1	65	79	113	86	342
1	28	23	31	15	97
2	12	12	16	5	46
3	18	14	15	19	66
4	13	19	19	8	58
5	7	20	5	15	47
6	5	2	5	15	27
7	7	3	14	7	31
8	1	3	6	7	17
9	3	3	3	3	12
10	2	2 2	5	5	14
11	1	2	5	5	13
12	1	3	6	4	13
13	1	3	2	4	9
14	0	2	2	2	7
15	3	5	2	7	16
16	0	1	0	1	3
17	1	2	2	0	5
18	0	5	4	2	10
19	1	1	0	2	4
20	1	1	2	4	8
21	1	1	2	3	7
22	1	4	6	4 1	16
23 24	1 0	2 0	0 2	1	3 5
24 25	4		2	2	10
26	4	2 2	0	0	2
20	1	1	2	1	4
28	2	0 0	0	1	4
29	0	0	0	2	2
31+	0	0	0	0	1
Total 0-30 Percentage early	176	217	271	230	895
neonatal <sup>1</sup>	84.4	77.4	74.9	70.8	76.3
<sup>1</sup> ≤6 days / ≤30 day	/S				

#### Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Nepal 2011

Age at death	Numbe	er of years p	receding the	survey	Total
(months)	0-4	5-9	10-14	15-19	0-19
<1 <sup>a</sup>	176	217	271	230	895
1	15	31	33	30	108
2	13	6	11	21	50
3	6	17	18	10	51
4	9	12	9	8	38
5	4	17	22	14	57
6	2	18	10	17	47
7	2	5	11	6	24
8	2 3	8	10	9	28
9	3	5	8	12	27
10	2	2	6	10	21
11	1	6	12	6	26
12	2	4	10	6	22
13	3	5	4	4	16
14	0	1	4	1	6
15	1	2	3	7	13
16	0	2	1	1	5
17	0	1	3	2	6
18	1	3	2	14	19
19	1	0	0	0	2
20	0	0	0	2	2
21	0	0	0	6	6
22	0	0	0	1	1
23	0	1	0	1	2
24+	2	4	4	9	20
Total 0-11 Percentage	235	344	420	374	1,373
neonatal <sup>1</sup>	74.9	63.2	64.6	61.6	65.2

<sup>a</sup> Includes deaths under one month reported in days
 <sup>1</sup> Under one month / under one year

#### Table C.7 Nutritional status of children based on NCHS/CDC/WHO International Reference Population

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Nepal 2011

background characteristics, Ne		eight-for-age	1		Weight-fo	or-height			Weight-	for-age		
Background	Percentage below	Percentage below	Mean Z-score	Percentage below	Percentage below	Percentage above	Mean Z-score	Percentage below	Percentage below		Mean Z-score	- Number of
characteristic	-3 SD	$-2 \text{ SD}^2$	(SD)	-3 SD	-2 SD <sup>2</sup>	+2 SD	(SD)	-3 SD	-2 SD <sup>2</sup>	above +2 SD	(SD)	children
Age in months												
<6 6-8	1.7 3.2	13.6 13.0	-0.6 -0.7	1.1 0.0	3.8 7.0	4.8 1.2	-0.0 -0.5	0.5 3.0	6.3 15.1	1.2 2.9	-0.4 -0.9	223 136
9-11	3.2	11.7	-1.0	1.7	18.3	1.8	-1.0	6.9	39.5	0.0	-1.6	111
12-17	9.2	27.6	-1.4	0.9	19.0	0.0	-1.2	7.7	44.8	0.0	-1.8	266
18-23 24-35	13.5 13.4	40.4 36.7	-1.6 -1.6	5.4 0.1	23.7 7.5	0.6 1.1	-1.3 -0.8	14.5 9.0	48.8 40.7	0.0 0.6	-1.8 -1.7	222 503
36-47	17.1	45.4	-1.9	0.5	6.2	0.2	-0.8	7.7	37.7	0.1	-1.7	526
48-59	16.4	41.6	-1.7	0.6	5.8	0.5	-0.7	6.8	35.4	0.7	-1.6	494
Sex												
Male Female	11.3 13.3	34.8 34.0	-1.5 -1.5	0.9 1.1	9.8 9.6	0.7 1.3	-0.8 -0.8	7.2 7.8	35.7 35.5	0.4 0.7	-1.5 -1.5	1,271 1,210
_	13.5	34.0	-1.5	1.1	5.0	1.5	-0.0	7.0	55.5	0.7	-1.5	1,210
Birth interval in months <sup>3</sup> First birth <sup>4</sup>	8.8	27.8	-1.3	1.2	8.4	1.8	-0.7	4.3	28.8	0.7	-1.4	938
<24	20.4	41.7	-1.8	2.0	11.8	0.0	-0.9	10.7	45.0	0.0	-1.7	322
24-47	13.4	41.5	-1.6	0.4	9.9	0.6	-0.9	10.0	40.5	0.2	-1.7	729
48+	9.6	29.8	-1.4	0.9	10.4	0.7	-0.8	7.2	34.1	1.1	-1.5	395
Size at birth <sup>3</sup>	19.2	17 6	-1.8	0.0	12.1	1 2	-1.1	11 6	54.0	0.0	-2.0	0.2
Very small Small	18.2 16.8	47.6 42.3	-1.8	0.9 1.6	13.1 14.4	1.3 0.3	-1.1	11.6 12.4	54.0 49.7	0.0	-2.0 -1.9	93 329
Average or larger	10.8	32.2	-1.4	1.0	8.7	1.1	-0.7	6.4	32.2	0.6	-1.5	1,957
Missing	0.0	43.6	-1.3	0.0	0.0	0.0	-1.1	0.0	43.6	0.0	-1.6	4
Mother's interview status		o			o –				or -	o -		
Interviewed Not interviewed but in	11.9	34.2	-1.5	1.0	9.7	1.0	-0.8	7.4	35.5	0.5	-1.5	2,383
household	26.9	34.9	-1.5	0.0	10.5	0.0	-0.8	6.3	47.5	0.0	-1.5	35
Not interviewed, and not in	47.0	44.0	47	0.0	0.5	0.0	0.0	40.4	04.0	4.0	4 -	
the household <sup>®</sup>	17.8	41.6	-1.7	0.0	9.5	0.9	-0.6	10.1	34.2	1.6	-1.5	62
Mother's nutritional status	10.0	40.0	47	1.0	10.0	0.5	10	115	40.0	0.0	1.0	407
Thin (BMI<18.5) Normal (BMI 18.5-24.9)	12.9 12.6	40.2 34.1	-1.7 -1.5	1.9 0.8	18.9 7.8	0.5 0.8	-1.2 -0.7	14.5 6.0	48.9 34.0	0.0 0.3	-1.9 -1.5	467 1,707
Overweight/ obese (BMI≥25)	4.1	21.5	-0.9	1.1	4.5	3.8	-0.3	2.1	17.0	3.0	-0.9	224
Residence												
Urban	3.7	20.1	-1.0	0.9	8.4	1.6	-0.7	4.4	23.5	1.0	-1.2	216
Rural	13.1	35.8	-1.5	1.0	9.8	0.9	-0.8	7.7	36.7	0.5	-1.6	2,265
Ecological zone	10 7	40.0							40.0			100
Mountain Hill	16.7 12.3	46.0 35.4	-1.9 -1.5	0.5 0.5	8.8 9.5	0.2 1.2	-0.8 -0.7	8.8 6.7	46.2 34.7	0.4 0.5	-1.8 -1.5	196 990
Terai	11.5	31.9	-1.4	1.5	9.9	0.9	-0.8	7.8	34.7	0.6	-1.5	1,294
Development region												
Eastern	9.1	31.5	-1.4	0.4	9.5	1.3	-0.8	6.2	31.9	0.7	-1.5	599
Central Western	13.9 9.7	33.5 30.6	-1.4 -1.4	1.7 0.2	10.2 8.0	0.9 1.4	-0.8 -0.7	8.5 4.8	34.9 32.7	0.7 0.8	-1.5 -1.4	768 464
Mid-western	17.3	42.9	-1.4	1.1	9.3	0.2	-0.7	9.2	43.1	0.8	-1.4	371
Far-western	12.2	38.2	-1.6	1.6	11.9	1.0	-0.9	9.4	40.3	0.1	-1.7	279
Subregion												
Eastern mountain	10.1	38.6	-1.6	0.0	5.1	0.7	-0.6	4.1	32.6	0.7	-1.4	47
Central mountain Western mountain	12.4 21.5	34.6 54.1	-1.7 -2.1	1.0 0.5	7.1 11.2	0.0 0.0	-0.9 -0.9	5.7 12.2	42.9 53.7	1.0 0.0	-1.7 -2.0	44 105
Eastern hill	11.1	39.7	-1.7	0.2	7.8	1.6	-0.7	5.3	35.1	0.0	-1.6	191
Central hill	9.5	25.8	-1.2	0.7	15.1	2.0	-0.8	6.3	32.2	2.2	-1.4	214
Western hill Mid-western hill	8.4 19.8	28.9 45.2	-1.3 -1.9	0.2 0.5	6.4 6.2	1.3 0.5	-0.6 -0.7	3.0 9.8	27.5 40.6	0.0 0.0	-1.3 -1.7	295 171
Far-western hill	18.7	48.1	-2.0	1.2	14.7	0.0	-1.0	14.5	47.6	0.0	-2.0	118
Eastern terai	7.9	26.2	-1.3	0.6	10.9	1.2	-0.8	6.9	30.0	1.1	-1.4	361
Central terai Western terai	15.9 11.9	36.6 33.6	-1.5 -1.6	2.1 0.2	8.5 10.7	0.5 1.4	-0.8 -0.8	9.7 7.9	35.4 41.9	0.0 2.1	-1.5 -1.6	510 169
Mid-western terai	11.1	34.6	-1.5	2.4	12.5	0.0	-1.0	7.0	39.0	0.2	-1.7	140
Far-western terai	3.6	22.5	-1.1	2.1	9.2	2.4	-0.8	3.4	30.7	0.2	-1.3	115
Mother's education												
No education Primary	17.6	42.2	-1.8	1.2	11.4	0.2	-1.0	11.4	45.2	0.0	-1.8	1,152
Some secondary	9.8 5.8	32.9 26.0	-1.4 -1.2	1.3 0.3	10.4 6.8	1.2 2.5	-0.8 -0.6	6.4 2.1	32.9 25.7	0.5 1.4	-1.5 -1.2	480 466
SLC and above	5.1	19.5	-0.9	1.0	6.7	1.4	-0.6	2.2	19.8	1.1	-1.0	320
Wealth quintile												
Lowest	18.4	49.0	-1.9	0.9	11.7	0.9	-0.8	9.8	47.5	0.0	-1.8	642
Second Middle	16.2 10.4	38.0 29.9	-1.7 -1.4	0.8 1.4	9.4 11.2	0.3 1.3	-0.9 -0.9	8.4 7.8	39.2 36.1	0.1 0.5	-1.8 -1.5	508 582
Fourth	7.6	26.2	-1.2	1.8	7.2	0.6	-0.7	6.4	26.5	0.7	-1.3	417
Highest	3.5	18.7	-0.9	0.0	6.7	2.2	-0.5	2.2	17.6	2.3	-1.0	331
Total	12.3	34.4	-1.5	1.0	9.7	1.0	-0.8	7.5	35.6	0.5	-1.5	2,480

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. SLC = School Leaving Certificate <sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median <sup>2</sup> Excludes children whose mothers were not interviewed <sup>3</sup> First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval <sup>4</sup> Includes children whose mothers are deceased <sup>5</sup> Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10 <sup>6</sup> For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire



#### TECHNICAL AND ADMINISTRATIVE STAFF NEW ERA

#### **Project Director**

Anjushree Pradhan (January 2010-September 2011)

#### **Technical Advisor**

Yogendra Prasai

#### Senior Technical Staff

Kshitiz Shrestha, Research Officer Jyoti Manandhar, Research Officer Sachin Shrestha, Senior Research Assistant

#### **Senior Data Processing Staff**

Rajendra Lal Dangol Sarita Vaidya

#### **Data Supervisor**

Gehendra Pradhan Babu Raja Dangol Pradhumna Shah

#### **Administrative Staff**

Niru Shrestha Sujan Shrestha Kishor Shrestha Rajendra Kumar Shrestha

#### Word Processing

Sanu Raja Shakya Geeta Shrestha Amatya

#### Staff for Quick Count of Dwelling Units

Amir Rai Anil Kumar Bhattarai Anuj Kunwar Arjun Bahadur Saud Badri Nepal Bikkim Shrestha **Bimal Poudel** Bishnu Prasad Adhikari **Bishwash Neupane** Braj Kishor Shah Chetan Nidhi wagle Ganesh Wagle Harishankar Prasad Chaudhary Jagadish Khatiwada Jibesh Dulal Jitendra Kumar Yadav Kailash Awasthi Kamal Raj Kharel Kamal Tamang Keshar Dhakal Khagendra Prasai

Amir Rai Ananda Panta Anish Shrestha Ashok Khanal Badri Nepal **Balram** Pant **Bimal Poudel** Bishnu Prasad Adhikari **Bishwash Neupane** Buddhi Narayan Shrestha Damber Prasad Upadhya Dipendra Maharjan Hari Prasad Pyakurel Harka Bahadur Karki Himalaya Awasthi Jagadish Khatiwada Jibesh Dulal

Mahendra Dulal

Namrata Karki Ramesh Lawati Kajiman Mahatara Kumar Shrestha Manoj Bikram Kathet Mohan Baniya Mohan Singh Dhami Naveen Khatiwada Naveen Kunwar Navin Kumar Chaudhary Nawa Raj Tiwari Om Thapa Pawan Kumar Yadav Peshal Parajuli Pom Narayan Panthi Prem Kumar Shrestha Prithivi Bahadur Khadka Radheshyam Chaudhary Rakesh Prasad Chaudhary Ram Balak Ray Ram Chandra Rimal Ramesh Shrestha

#### Listing Staff

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Field Coordinator Tara Shrestha

Quality Control Shanti Ram Dahal Surekha Bohara Saman Shrestha Santosh Magar Santu Yadav Sanu Bhai Thapa Satish Dangi Shankar Prasad Neupane Shiva Hari Ghimire Shree Bhakta Adhikari Shree Ram Dahal Shreedesh Bhujel Shreedhar Pandey Shyam Sundsar Prasad Tharu Sita Ram Rijal Sujan Shrestha Sushil Khattri Tej Prasad Sapkota Tek Bahadur Lama Tek Nath Dahal Utsav Kandel Vijaya Kumar Yadav

Ram Balak Ray Ram Chandra Rimal Rudra Prasad Mishra Santosh Bista Sanu Bhai Thapa Shankar Prasad Neupane Shree Bhakta Adhikari Shree Ram Dahal Shyam sundar Prasad Tharu Sita Ram Rijal Sushil Dhungel Sushil Khattri Tej Prasad Sapkota Tirtha Gautam Uttsav Kandel Vijaya Kumar Yadav Yubaraj Dangi

Surendra Kumar Mahato Sushila Shrestha

#### **Field Supervisors**

Badri Nepal Dipendra Maharjan Durga Prasad Phuyal Harishankar Prasad Chaudhary Harka Bdr. Karki Jitendra Kumar Yadav

Ajay Kumar Ray Anish Shrestha Anu Kumari Karna Anuradha Parajuli Archana Jha Babita Bhattarai Babita Kumari Shah Babita Shrestha Badri Prasad Mainali Bhagwati Dahal Bhawana Shrestha Bimala Guragain Bishnu Maya Pandey Eva Puri Guna Prasad Bhattarai Hari Bhakta Saud Hem Raj Ojha Indira Rijal Isworee Pandey Kajiman Mahatara Keshab Shrestha Khagendra Bahadur Lamjel Ramesh Shrestha Rudra Shrestha Saman Shrestha Santu Yadav Sujan Shrestha Sushil Dhungel

#### Interviewers

Laxmi Acharya Laxmi Gurung Laxmi Prajapati Luna Chitrakar Manita Koirala Manju Pathak Meena Neupane Menuka Kumari Dhungel Mina Dhakal Mira Kharel Nani Kumari Maharjan Nirmal Chhettri Nisha Ghimire Pavitra Bhatta Pinkee Kumari Siwakoti Pramada Mishra Priya Ghimire Rabindra Prasad Tharu Rajani Gupta Ranjana Kumari Rana Magar Ranjit Kumar Jha Renuka Neupane

Tej Prasad Sapkota Tirtha Gautam Umesh Prasad Mahato Utsav Kandel

Rita Acharya Ritu Shrestha Runa Chaudhary Rupa Basnet Rusan Yonjan Tamang Sabina Shrestha Samir Bhattarai Sampurna Shresrtha Sarita Rizal Satish Rayamajhi Shanta Bogati (Baniya) Shila Shrestha Shobha Ghimire Shova Koirala Shrijana Maharjan Sita Lama Sudha Giri Sujata Karanjit Surendra Prasad Joshi Sushila Baral Yasoda Uprety

#### **ICF International Staff**

Pav Govindasamy, Regional Coordinator for Anglophone Africa and Asia Anjushree Pradhan, Country Manager (October 2011-March 2012) Alfredo Aliaga, Sampling Specialist Albert Themme, Data Processing Specialist Alexander Izmukhambetov, Data Processing Specialist Anne Cross, Deputy Director, Technical Reviewer Joy Fishel, Survey Specialist Sunita Kishore, Senior Gender Specialist Sri Poedjastoeti, Survey Specialist Clara Burgert, GIS Specialist Thea Roy, GIS Research Assistant Nancy Johnson, Senior Editor Greg Edmondson, Editor Christopher Gramer, Graphics/Desktop Publishing Specialist Kaye Mitchell, Document Production Specialist Erica Nybro, Senior Communications Associate Sarah Schneider, Dissemination Specialist



#### NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2011 HOUSEHOLD QUESTIONNAIRE

		IDENTIFICATION		
NAME AND CODE OF DI				
NAME AND CODE OF VI	LLAGE/MUNICIPALITY			
WARD NUMBER				
CLUSTER NUMBER				
HOUSEHOLD NUMBER				
NAME OF HOUSEHOLD				
NAME OF RESPONDEN				
	D FOR MALE SURVEY (YES	S=1: NO=2)		
		,,		
ALTITUDE				
		INTERVIEWER VISITS	;	
	1	2	3	FINAL VISIT
DATE				 DAY
				MONTH
				2 0 6 YEAR
INTERVIEWER'S NAME				 INT. NUMBER
RESULT*				 RESULT
NEXT VISIT: DATE				TOTAL NUMBER
TIME				OF VISITS
	USEHOLD MEMBER AT HO		NT RESPONDENT	TOTAL PERSONS IN HOUSEHOLD
3 ENTIRI 4 POSTF 5 REFUS			OF TIME	TOTAL ELIGIBLE WOMEN
7 DWELL	LING VACANT OR ADDRES LING DESTROYED LING NOT FOUND	S NOT A DWELLING		
9 OTHER		(SPECIFY)		 MEN
	LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE			
SUPERVI	SOR	OFFIC		KEYED BY
NAME			$\Box$	

Hello. My name is \_\_\_\_\_\_\_. I am working with MINISTRY OF HEALTH AND POPULATION. We are conducting a survey about health all over Nepal. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. No part of this interview is being recorded in tape or video. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

Do you have any questions? May I begin the interview now?

SIGNATURE OF INTERVIEWER:		DATE:						
RESPONDENT AGREES TO BE INTERVIEWED	1 ↓	RESPONDENT DOES NOT AGREE TO BE INTERVIEWED	2 → END					

#### HOUSEHOLD SCHEDULE

	HOUSEHOLD SCHEDULE										
							IF AGE 10 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESID	ENCE	AGE	MARITAL STATUS		ELIGIE	BILITY	
1	2	3	4	5	6	7	8	9	9A	10	11
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = CURRENTLY MARRIED 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER- MARRIED	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF WOMAN SELECTED FOR DOMESTIC VIOLENCE QUESTIONS IN Q. 31	CIRCLE LINE NUMBER OF ALL MEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01	01	01
02			12	12	12			02	02	02	02
03			1 2	12	12			03	03	03	03
04			12	12	12			04	04	04	04
05			1 2	12	12			05	05	05	05
06			1 2	12	12			06	06	06	06
07			1 2	12	12			07	07	07	07
08			1 2	12	12			08	08	08	08
09			1 2	12	12			09	09	09	09
10			1 2	12	12			10	10	10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD SHIP TO HEAD OF HOUSEHOU 09 = BROTHER-IN-LAW OR SISTER-IN-LAW 10 = NIECE/NEPHEW 11 = CO-WIFE 12 = OTHER RELATIVE 13 = ADOPTED/FOSTER/ STEPCHILD 14 = NOT RELATED 98 = DON'T KNOW 

 CODES FOR Q. 3: RELATION

 01 = HEAD

 02 = WIFE OR HUSBAND

 03 = SON OR DAUGHTER

 04 = SON-IN-LAW OR

 DAUGHTER-IN-LAW

 05 = GRANDCHILD

 06 = PARENT

 07 = PARENT-IN-LAW

 08 = BROTHER OR SISTER

Appendix E • 295

		IF AGE 0-17 YEARS					S	IF AG	E 3-24 YEARS	IF AGE 0-4 YEARS
LINE NO.		SURVIVORSHIP / BIOLOGICA		E OF		EVER ATTEND SCHOOL	DED		ENT/RECENT	BIRTH REGIS- TRATION
	12	13	14	15	16	16A	17	18	19	20
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	Has (NAME) ever partici- pated in a literacy program or any other program that in- volves learning to read and write (not including primary school)?	What is the highest grade (NAME) has completed? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2067)/ (2068) school year?	During this/that school year, what grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the VDC/ municipality? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
01	Y N DK 1 2 - 8 GO TO 14		Y N DK 1 2 - 8 GO TO 16		Y N 1 2 ↓ GO TO 17	Y N 1	GRADE	Y N 1 2 GO TO 20	GRADE	
02	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 2 GO TO 20		1 2 ↓ GO TO 20		
03	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
04	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
05	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
06	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
07	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
08	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
09	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
10	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16			1 - 2 GO TO 20		1 2 ↓ GO TO 20		

GRADE 00 = LESS THAN 1 YEAR COMPLETED 94 = SCHOOL BASED PRE-PRIMARY CENTERS (USE '00' FOR Q. 17 ONLY. 95 = INFORMAL PRESCHOOL THIS CODE IS NOT ALLOWED 98 = DON'T KNOW FOR Q. 19) 01-10 = GRADE 1 - GRADE 10 11 = GRADE 11 AND ABOVE

							IF AGE 10 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESID	ENCE	AGE	MARITAL STATUS		ELIGIE	BILITY	
1	2	3	4	5	6	7	8	9	9A	10	11
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = CURRENTLY MARRIED 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER- MARRIED	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF WOMAN SELECTED FOR DOMESTIC VIOLENCE QUESTIONS IN Q. 31	CIRCLE LINE NUMBER OF ALL MEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
11			M F 1 2	Y N 1 2	Y N 1 2			11	11	11	11
12			12	12	12			12	12	12	12
13			12	12	12			13	13	13	13
14			12	12	12			14	14	14	14
15			1 2	12	12			15	15	15	15
16			12	12	12			16	16	16	16
17			12	12	12			17	17	17	17
18			12	12	12			18	18	18	18
19			1 2	12	12			19	19	19	19
20			1 2	12	12			20	20	20	20
TICK HI	ERE IF CONTINUATION SHEET U	JSED	l		_		CODES FOR Q. 3: RE	LATIONSHIP	TO HEAD OF H	OUSEHOLD	
listing. A children 2B) Are membe lodgers	t to make sure that I have a compl Are there any other persons such a or infants that we have not listed? a there any other people who may rs of your family, such as domestic , or friends who usually live here?	AS SMAIL YES not be servants, YES	ADD TC TABLE ADD TC ADD TC TABLE	NO		04 = SON-IN- DAUGH 05 = GRAND	R DAUGHTER LAW OR TER-IN-LAW CHILD	SISTER 10 = NIECE/I 11 = CO-WIF 12 = OTHER 13 = ADOPT	E RELATIVE ED/FOSTER/		
staying	there any guests or temporary vis here, or anyone else who stayed h ho have not been listed?		ADD TO	) NO		06 = PAREN 07 = PAREN 08 = BROTH		STEPCI 14 = NOT RE 98 = DON'T I	LATED		

		IF AGE 0-1	7 YEARS			IF AGE 3 YEAR OR OLDER		IF AGI	E 3-24 YEARS	IF AGE 0-4 YEARS
LINE NO.		SURVIVORSHIP A BIOLOGICAI		E OF		EVER ATTEND SCHOOL	DED		ENT/RECENT TTENDANCE	BIRTH REGIS- TRATION
	12	13	14	15	16	16A	17	18	19	20
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	Has (NAME) ever partici- pated in a literacy program or any other program that in- volves learning to read and write (not including primary school)?	What is the highest grade (NAME) has completed? SEE CODES BELOW.	Did (NAME) attend school at any time (2067)/ (2068) school year?	During this/that school year, what grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the VDC/ municipality? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	Y N DK		Y N DK		Y N		GRADE	Y N	GRADE	
11	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
12	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
13	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
14	1 2 - 8 GO TO 14		1 2 7 8 GO TO 16		↓ 2 GO TO 17	1 - 2 GO TO 20		1 2 GO TO 20		
15	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		*	1 - 2 GO TO 20		1 2 GO TO 20		
16	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 GO TO 20		
17	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 - 2 GO TO 20		1 2 ↓ GO TO 20		
18	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16			1 - 2 GO TO 20		1 2 ↓ GO TO 20		
19	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16		1 2 ↓ GO TO 17	1 2 GO TO 20		1 2 GO TO 20		
20	1 2 - 8 GO TO 14		1 2 - 8 GO TO 16			1 2 GO TO 20		1 2 ↓ GO TO 20		

CODES FOR Qs. 17 AND 19: EDUCATION

98 = DON'T KNOW

 
 GRADE

 00 = LESS THAN 1 YEAR COMPLETED
 94 = SCHOOL BASED PRE-PRIMARY CENTERS

 (USE '00' FOR Q. 17 ONLY.
 95 = INFORMAL PRESCHOOL
 THIS CODE IS NOT ALLOWED FOR Q. 19)

01-10 = GRADE 1 - GRADE 10

11 = GRADE 11 AND ABOVE

				MIGRATION		
21	<ul> <li>Now I would like to ask you about members of this household who lived here in the past 10 years but have since moved away.</li> <li>Are there any members of your household who lived here in the past 10 years but who have since moved away?</li> </ul>				YES	
LINE NO.	MIGRANTS	SEX	MONTH AND YEAR MOVED AWAY	AGE	REASON FOR MOVING	PLACE TRAVELLED TO
22	23	24	25	26	27	28
	Please give me the names of the persons who are living outside of this household? AFTER LISTING THE NAMES AND RECORDING 'THE SEX FOR EACH PERSON, ASK QUESTIONS 25-28 FOR EACH PERSON	ls (NAME) male or female?	In what month and year did (NAME) move away?	How old was (NAME) when s/he moved away? IF AGE 95 OR MORE, RECORD 95'. IF AGE LESS THAN 1 YEAR RECORD '00'	What was the main reason that (NAME) moved away?	Where has (NAME) travelled to? IF 'INDIA' AND 'NEPAL ASK FOR NAME OF THE CITY AND CODE; IF OTHER THAN INDIA OR NEPAL ASK FOR NAME OF THE COUNTRY. RECORD THE CODES AS PROVIDED.
01		M F 1 2	MONTH YEAR	YEARS	WORK         1           STUDY         2           MARRIAGE         3           FAMILY         4           SECURITY         5           OTHER         6           (SPECIFY)         00"T KNOW	NEPAL         1           INDIA         2           OTHER COUNTRY         3           DON'T KNOW         998
02		M F 1 2	MONTH YEAR	YEARS	WORK         1           STUDY         2           MARRIAGE         3           FAMILY         4           SECURITY         5           OTHER         6           (SPECIFY)           DON'T KNOW         8	NEPAL         1           INDIA         2           OTHER COUNTRY         3           DON'T KNOW         998
03		M F 1 2	MONTH YEAR	YEARS	WORK         1           STUDY         2           MARRIAGE         3           FAMILY         4           SECURITY         5           OTHER         6           (SPECIFY)         0           DON'T KNOW         8	NEPAL         1           INDIA         2           OTHER COUNTRY         3           DON'T KNOW         998
04		M F 1 2	MONTH YEAR	YEARS	WORK         1           STUDY         2           MARRIAGE         3           FAMILY         4           SECURITY         5           OTHER         6           (SPECIFY)         8	NEPAL         1           INDIA         2           OTHER COUNTRY         3           DON'T KNOW         998
05		M F 1 2	MONTH YEAR	YEARS	WORK         1           STUDY         2           MARRIAGE         3           FAMILY         4           SECURITY         5           OTHER         6           (SPECIFY)           DON"T KNOW         8	NEPAL         1           INDIA         2           OTHER COUNTRY         3           DON'T KNOW         998
Q.29	TOTAL NUMBER OF MIGRA	NTS			1	
4.23	I STAL NOWBER OF WIGRA			1		

30 CHECK THE FRONT COVER OF HOUSEHOLD QUESTIONNAIRE. IS HOUSEHOLD SELECTED FOR MALE SURVEY?								
							7	
HOUSEHOLD	SELECTED	Ļ	HO	USEHOLD	NOT SELE	CTED	<b></b>	101
31. TABLE FOR SELEC	TION OF F	RESPOND		R SECTIO		MESTIC V	IOLENCE	
LOOK AT THE LAST DIGIT NUMBER YOU SHOULD GO THE COVER SHEET OF TH COLUMN	D TO. CHEC	CK THE TO	TAL NUMBE	ER OF ELIG	IBLE FEMA	LE RESPO	NDENTS O	
CIRCLE THE LINE NUMBER	R FOR THIS	S WOMAN II	N COLUMN	9A				
FOR EXAMPLE, IF THE HO WOMEN AGE 15-49 IN THE THE ROW MEETS THE CO NUMBER OF THE SELECTI	HOUSEHC LUMN ('2').	DLD, GO TC NOW GO T	COLUMN	'3'. FIND TI	HE NUMBE	R IN THE B	OX WHERE	-
LAST DIGIT OF THE HOUSEHOLD NUMBER	-	TOTAL NUN	/BER OF E 3	LIGIBLE W	OMEN 15-4 5	9 IN THE H		8
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

-

# HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less than monthly, or never?	DAILY       1         WEEKLY       2         MONTHLY       3         LESS THAN MONTHLY       4         NEVER       5	
102	What is the main source of drinking water for members of your household?	PIPED WATER         PIPED INTO DWELLING       11         PIPED TO YARD/PLOT       12         PUBLIC TAP/STANDPIPE       13         TUBE WELL OR BOREHOLE       21         DUG WELL       21         PROTECTED WELL       31         UNPROTECTED WELL       32         WATER FROM SPRING       41         UNPROTECTED SPRING       42         RAINWATER       51         TANKER TRUCK       61         SURFACE WATER (RIVER/DAM/       1         LAKE/POND/STREAM/CANAL/       71         STONE TAP/DHARA       81         BOTTLED WATER       91	→ 104A
103	Where is that water source located?	(SPECIFY)	<u> </u>
		IN OWN YARD/PLOT 2 ELSEWHERE 3	- <b>→</b> 104A
104	How long does it take to go there, get water, and come back?	MINUTES	
104A	Do you use the main water source all year or only part of the year?	ALL YEAR1PART OF THE YEAR2	→ 105

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
105	Do you do anything to the water to make it safer to drink?	YES	107
106	What do you usually do to make the water safer to drink?	BOIL A ADD BLEACH/CHLORINE/ PIYUSH/WATER GUARD B	
	Anything else?	STRAIN THROUGH A CLOTH C USE WATER FILTER (CERAMIC/ BIOSAND/COLLOIDAL FILTER) D	
	RECORD ALL MENTIONED.	BIOSAND/COLLODAL FILTER)       D         SOLAR DISINFECTION       E         LET IT STAND AND SETTLE       F	
		OTHER X (SPECIFY) DON'T KNOW Z	
107	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET         FLUSH TO PIPED SEWER         SYSTEM         SYSTEM         FLUSH TO SEPTIC TANK         FLUSH TO SEPTIC TANK         11         FLUSH TO SEPTIC TANK         FLUSH TO SEPTIC TANK         FLUSH TO SEPTIC TANK         SYSTEM         FLUSH TO SEPTIC TANK         FLUSH TO SOMEWHERE ELSE         14         FLUSH, DON'T KNOW WHERE         VENTILATED IMPROVED         PIT LATRINE         VENTILATED IMPROVED         PIT LATRINE WITH SLAB         22         PIT LATRINE WITHOUT SLAB/         OPEN PIT         23         COMPOSTING TOILET         31         BUCKET TOILET         41         NO FACILITY/BUSH/FIELD         51         OTHER         96	→ 110
108	Do you share this toilet facility with other households?	YES 1 NO 2	→ 110
109	How many households in total use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10       0         10 OR MORE HOUSEHOLDS       95 DON'T KNOW	
110	Does your household have:	YES NO	
	Electricity? A radio? A television? A mobile telephone? A non-mobile telephone? A refrigerator? A table? A chair? A bed? A sofa? A cupboard? A computer? A clock? A fan? A dhiki/janto?	ELECTRICITY       1       2         RADIO       1       2         TELEVISION       1       2         MOBILE TELEPHONE       1       2         NON-MOBILE TELEPHONE       1       2         REFRIGERATOR       1       2         TABLE       1       2         CHAIR       1       2         SOFA       1       2         CUPBOARD       1       2         CLOCK       1       2         FAN       1       2         DHIKI/JANTO       1       2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	What type of fuel does your household mainly use for cooking?	ELECTRICITY       01         LPG       02         NATURAL GAS       03         BIOGAS       04         KEROSENE       05         COAL, LIGNITE       06         CHARCOAL       07         WOOD       08         STRAW/SHRUBS/GRASS       09         AGRICULTURAL CROP       10         ANIMAL DUNG       11         NO FOOD COOKED       11	
		IN HOUSEHOLD 95 OTHER 96 (SPECIFY)	→ 114
112	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE       1         IN A SEPARATE BUILDING       2         OUTDOORS       3         OTHER       6         (SPECIFY)	114
113	Do you have a separate room which is used as a kitchen?	YES 1 NO 2	
114	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR         EARTH/SAND       11         DUNG       12         RUDIMENTARY FLOOR       12         WOOD PLANKS       21         PALM/BAMBOO       22         FINISHED FLOOR       22         FINISHED FLOOR       31         VINYL OR ASPHALT STRIPS       32         CERAMIC TILES       33         CEMENT       34         CARPET       35         OTHER      96	
115	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING         NO ROOF       11         THATCH/PALM LEAF       12         RUDIMENTARY ROOFING         RUSTIC MAT       21         PALM/BAMBOO       22         WOOD PLANKS       23         CARDBOARD       24         FINISHED ROOFING       31         WOOD       32         CALVANIZED SHEET       31         WOOD       32         CALAMINE/CEMENT FIBER       33         CERAMIC TILES       34         CEMENT       35         ROOFING SHINGLES       36         OTHER	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS       11         CANE/PALM/TRUNKS       12         MUD/SAND       13         RUDIMENTARY WALLS       13         BAMBOO WITH MUD       21         STONE WITH MUD       22         PLYWOOD       23         CARDBOARD       24         REUSED WOOD       25         FINISHED WALLS       31         STONE WITH LIME/CEMENT       32         BRICKS       33         CEMENT BLOCKS       34         WOOD PLANKS/SHINGLES       35         OTHER       96	
117	How many rooms in this household are used for sleeping?	ROOMS	
118	Does any member of this household own: A watch? A bicycle/rickshaw? A motorcycle or motor scooter? A three wheel tempo? An animal-drawn cart? A car or truck?	YESNOWATCH12BICYCLE/RICKSHAW12MOTORCYCLE/SCOOTER12THREE WHEEL TEMPO12ANIMAL-DRAWN CART12CAR/TRUCK12	
119	Does any member of this household own any agricultural land?	YES 1 NO 2	→ 121
120	How many bigha/ropani of agricultural land do members of this household own?	BIGHA 1	
	IF 95 OR MORE, CIRCLE '995'. IF LESS THAN 1 RECORD `00'	95 OR MORE BIGHA/ROPANI 995 DON'T KNOW	
121	Does this household own any livestock, herds, other farm animals, or poultry?	YES 1 NO 2	→ 123
122	How many of the following animals does this household own? IF NONE, ENTER '00'. IF 95 OR MORE, ENTER '95'. IF UNKNOWN, ENTER '98'. Buffalo?		
	Milk cows or bulls? Horses, donkeys, or mules?	COWS/BULLS	
	Goats?	GOATS	
	Sheep?	SHEEP	
	Chickens?	CHICKENS	
	Ducks?	DUCKS	
	Pigs?	PIGS	
	Yaks?	YAKS	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
123	Does any member of this household have a bank account/cooperative/or other savings account?	YES	SKI
124	Does your household have any mosquito nets that can be used while sleeping?	YES 1 NO 2	→ 126
125	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS	
126	Please show me where members of your household most often wash their hands.	OBSERVED       1         NOT OBSERVED,       2         NOT IN DWELLING/YARD/PLOT       2         NOT OBSERVED,       3         NOT OBSERVED, OTHER REASON       4	129
127	OBSERVATION ONLY: OBSERVE PRESENCE OF WATER AT THE PLACE FOR HANDWASHING.	WATER IS AVAILABLE    1      WATER IS NOT AVAILABLE    2	
128	OBSERVATION ONLY: OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) A ASH, MUD, SAND B NONE C	
129	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE.	NO IODINE       1         <15 PPM	
		SALT NOT TESTED 6 (SPECIFY REASON)	

### HOUSEHOLD FOOD SECURITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
130	In the past 12 months, how frequently did you worry that your household would not have enough food?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
131	In the past 12 months, how often were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
132	In the past 12 months, how often did you or any household member have to eat a limited variety of foods due to a lack of resources?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
133	In the past 12 months, how often did you or any household member have to eat a smaller meal than you felt you felt you needed because there was not enough food?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
134	In the past 12 months, how often did you or any household member eat fewer meals in a day because of resources to get food?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
135	In the past 12 months, how often was there with no food to eat of any kind in your household because of lack of resources to get food?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
136	In the past 12 months, how often did you or any household member go to sleep at night hungry because there was not enough food?	NEVER         1           RARELY         2           SOMETIMES         3           OFTEN         4	
137	CHECK Qs.130-136 ALL CODE `1' NOT ALL CODE CIRCLED CIRCLE		→ 201
138	Did your household have to adopt the following to meet the household food need in the last 12 months? Take loan? Collect wild food? Consume seed stock for next season? Sell household assets? Sell livestock? Sell land? Probe: Any other steps taken? If yes, specify.	YES         NO           TAKE LOAN         1         2           COLLECT WILD FOOD         1         2           CONSUME SEED         1         2           SELL ASSETS         1         2           SELL LIVESTOCK         1         2           SELL LAND         1         2           OTHER         1         2           (SPECIFY)         1         2	
139	What was the cause of food deficiency in your household in the last 12 months?	SHOCK FACTORS         DROUGHT       A         LANDSLIDE       B         CROP FAILURE       C         FLOOD       D         TEMPORAL FACTORS       FINANCIAL PROBLEM         FINANCIAL PROBLEM       E         NOT AVAILABLE IN MARKET       F         OTHER      X         (SPECIFY)       X	

### WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

201	CHECK COLUMN 11 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).				
		CHILD 1	CHILD 2	CHILD 3	
202	LINE NUMBER FROM COLUMN 11	LINE NUMBER	LINE NUMBER	LINE NUMBER	
	NAME FROM COLUMN 2	NAME	NAME	NAME	
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME)'s birth date?	DAY	DAY	DAY	
204	CHECK 203: CHILD BORN IN BAISAKH 2062 OR LATER?	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	
205	WEIGHT IN KILOGRAMS	KG	KG.	KG	
		REFUSED 9995 OTHER 9996	REFUSED 9995 OTHER 9996	REFUSED 9995 OTHER 9996	
206	HEIGHT IN CENTIMETERS		см.		
		NOT PRESENT          9994           (GO TO 212)         ↓           REFUSED	NOT PRESENT 9994 (GO TO 212)	NOT PRESENT 9994 (GO TO 212) _ J REFUSED 9995 OTHER	
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN         1           STANDING UP         2           NOT MEASURED         3	LYING DOWN 1 STANDING UP 2 NOT MEASURED 3	LYING DOWN         1           STANDING UP         2           NOT MEASURED         3	
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER	LINE NUMBER	LINE NUMBER	
210	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.		people all over the country to take an rom poor nutrition, infection, or chronic prevent and treat anemia.		
			2 or later take part in anemia testing in quipment used to take the blood is cle thrown away after each test.		
		kept strictly confidential and will not l	immediately, and the result will be told be shared with anyone other than mer		
		Do you have any questions? You can say yes to the test, or you o Will you allow (NAME OF CHILD/NA	can say no. It is up to you to decide. MES OF CHILDREN) to participate in	the anemia test?	
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 (SIGN) ← REFUSED 2	GRANTED 1 → (SIGN) → REFUSED 2	GRANTED 1 (SIGN) ← REFUSED 2	
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL	G/DL	G/DL .	
		NOT PRESENT	NOT PRESENT994 REFUSED	NOT PRESENT	
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.				

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 11	LINE NUMBER	LINE NUMBER	LINE NUMBER
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME)'s birth date?	DAY	DAY	DAY
204	CHECK 203: CHILD BORN IN BAISAKH 2062 OR LATER?	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES 1 NO 2 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG	KG	KG
206	HEIGHT IN CENTIMETERS	CM	CM	CM 9994 (GO TO 212) ↓ J REFUSED
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN         1           STANDING UP         2           NOT MEASURED         3	LYING DOWN 1 STANDING UP 2 NOT MEASURED 3	LYING DOWN         1           STANDING UP         2           NOT MEASURED         3
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS 1 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER	LINE NUMBER	LINE NUMBER
210	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	health problem that usually results f government to develop programs to We ask that all children born in 2062	2 or later take part in anemia testing in	disease. This survey will assist the this survey and give a few drops
		of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team.		
		Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF CHILD/NAMES OF CHILDREN) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 → (SIGN) → REFUSED 2	GRANTED 1 → (SIGN) → REFUSED 2	GRANTED 1 (SIGN) REFUSED 2
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL	G/DL	G/DL
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE CHILDREN, GO TO 214.			

214	CHECK COLUMN 9 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 215. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).					
		WOMAN 1	WOMAN 2	WOMAN 3		
215	LINE NUMBER FROM COLUMN 9	LINE NUMBER	LINE NUMBER	LINE NUMBER		
	NAME FROM COLUMN 2	NAME	NAME	NAME		
216	WEIGHT IN KILOGRAMS	KG.	кд.	KG.		
		NOT PRESENT         99994           REFUSED         99995           OTHER         99996	NOT PRESENT	NOT PRESENT         99994           REFUSED         99995           OTHER         99996		
217	HEIGHT IN CENTIMETERS	см.	см.	см.		
		NOT PRESENT	NOT PRESENT	NOT PRESENT		
218	AGE: CHECK COLUMN 7.	15-17 YEARS 1 18-49 YEARS 2 (GO TO 223) ↓	15-17 YEARS 1 18-49 YEARS 2 (GO TO 223) ↓	15-17 YEARS 1 18-49 YEARS 2 (GO TO 223) ↓		
219	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) 1 OTHER	CODE 4 (NEVER IN UNION) 1 OTHER 2 (GO TO 223)	CODE 4 (NEVER IN UNION) 1 OTHER		
220	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPON- SIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT		
221	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the anemia test?				
222	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2- (SIGN) (IF REFUSED, GO TO 226)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2- (SIGN) (IF REFUSED, GO TO 226)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2- (SIGN) (IF REFUSED, GO TO 226)		

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER FROM COLUMN 9 NAME FROM	LINE NUMBER	LINE NUMBER	LINE NUMBER
	COLUMN 2	NAME	NAME	NAME
223	ASK CONSENT FOR ANEMIA TEST FROM RESPONDENT.	results from poor nutrition, infection, or chron treat anemia. For the anemia testing, we will need a few d safe. It has never been used before and will	all over the country to take an anemia test. And nic disease. This survey will assist the governm rops of blood from a finger. The equipment use be thrown away after each test. The blood will l it will be kept strictly confidential and will not be no. It is up to you to decide.	ent to develop programs to prevent and d to take the blood is clean and completely be tested for anemia immediately, and the
224	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 RESPONDENT REFUSED 2- (SIGN) (IF REFUSED, GO TO 226)	GRANTED 1 RESPONDENT REFUSED 2– (SIGN) (IF REFUSED, GO TO 226)	GRANTED 1 RESPONDENT REFUSED 2 (SIGN) (IF REFUSED, GO TO 226)
225	PREGNANCY STATUS: CHECK 234 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES 1 NO 2 DK 8	YES	YES 1 NO 2 DK 8
226	RECORD HEMO- GLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL	G/DL	G/DL
227	GO BACK TO 216 IN N WOMEN, THEN END		R IN THE FIRST COLUMN OF AN ADDITIONA	AL QUESTIONNAIRE; IF NO MORE

# NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2011 WOMAN'S QUESTIONNAIRE

		IDENTIFICATION		
NAME AND CODE OF DI	STRICT			
NAME AND CODE OF VI	LLAGE/MUNICIPALITY			
WARD NUMBER				
CLUSTER NUMBER				
HOUSEHOLD NUMBER				
NAME OF HOUSEHOLD				
WOMAN SELECTED FOR	R DOMESTIC VIOLENCE			
	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
INTERVIEWER'S				YEAR 2 0 6
NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				
TIME				OF VISITS
*RESULT CODES: 1 COMPLE <sup>-</sup> 2 NOT AT H 3 POSTPON 4 REFUSED	HOME 6 NED 7	INCAPACITATED	(SPECIFY)	_
LANGUAGE OF QUES	TIONNAIRE ENG	LISH		5
LANGUAGE OF INTER	RVIEW			
NATIVE LANGUAGE C	F RESPONDENT			$\vdash \vdash$
TRANSLATOR USED (	(YES=1; NO=2)			
LANGUAGE CODES: N	NEPALI=1; BHOJPURI=2; I	MAITHILI=3; OTHER=6		
SUPERVI	SOR	OFFICE EDITOR	к	EYED BY
NAME			,   <sub></sub>	<del></del>
DATE				

#### SECTION 1. RESPONDENT'S BACKGROUND

# INTRODUCTION AND CONSENT

INFOF	RMED CONSENT		
are co housel and wi You do	My name is I am w nducting a survey about health all over Nepal. The information we coll hold was selected for the survey. The questions usually take about 30 Il not be shared with anyone other than members of our survey team. on't have to be in the survey, but we hope you will agree to answer the on you don't want to answer, just let me know and I will go on to the ne	ect will help the government to plan health services. to 60 minutes. All of the answers you give will be co No part of this interview is being recorded in tape or questions since your views are important. If I ask yo	Your onfidential video. ou any
Do you	I have any questions? May I begin the interview now?		
SIGNA	TURE OF INTERVIEWER:	DATE:	
RESP	ONDENT AGREES TO BE INTERVIEWED 1 RESPONDEN <sup>™</sup> ↓	DOES NOT AGREE TO BE INTERVIEWED	2→ END
NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR	
101A	COLLECT ANY RELEVANT DOCUMENTS THAT MAY HAVE INFORMATION ON THE RESPONDENT'S AGE AND HER CHILDREN'S AGE AND IMMUNISATIONS.		
102	In what month and year were you born?	MONTH	

		MONTH	
		DON'T KNOW MONTH 98	
		YEAR	
		DON'T KNOW YEAR 9998	
103	How old were you at your last birthday?	AGE IN COMPLETED YEARS	
	COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.		
104	Have you ever attended school?	YES 1 NO 2	→ 107
105	What is the highest grade you completed?		
	IF COMPLETED LESS THAN ONE GRADE, RECORD '00'.	GRADE	
106	CHECK 105:		
	GRADE 5 GRADE 6 OR LOWER OR HIGHER		→ 110

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL1ABLE TO READ ONLY PARTS OF2SENTENCE2ABLE TO READ WHOLE SENTENCE3NO CARD WITH REQUIRED4LANGUAGE4(SPECIFY LANGUAGE)5	
108	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES 1 NO 2	
109	CHECK 107: CODE '2', '3' OR '4' CIRCLED CIRCLED		→ 111
110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK1LESS THAN ONCE A WEEK2NOT AT ALL3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK1LESS THAN ONCE A WEEK2NOT AT ALL3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK1LESS THAN ONCE A WEEK2NOT AT ALL3	
113	What is your religion?	HINDU       1         BUDDHIST       2         MUSLIM       3         KIRAT       4         CHRISTIAN       5         OTHER       6         (SPECIFY)	
114	What is your caste/ethnicity?		
	WRITE CASTE/ETHNICITY ON LINE PROVIDED.	(CASTE/ETHNICITY)	
115	In the last 12 months, how many times have you been away from your home community for one or more nights?	NUMBER OF TIMES 00	→ 201
116	In the last 12 months, have you been away from your home community for more than one month at a time?	YES 1 NO 2	

### SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	Now I would like to ask you about all the pregnancies that you have had the children born to you whether they were born alive or dead, whethe with you or somewhere else, and all the pregnancies that you have had that it is not easy to talk about children who have died, or pregnancies that you tell us about all of them, so that the government can develop	er they are still living or not, whether they live ad that did not result in a live birth. I understand is that ended before full term, but it is important	
201	First I would like to ask about all the births you have had during your life. Have you ever given birth?	YES 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES 1 NO 2	→ 204
203	How many sons live with you?	SONS AT HOME	
	And how many daughters live with you?	DAUGHTERS AT HOME	
	IF NONE, RECORD '00'.		
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES 1 NO 2	→ 206
205	How many sons are alive but do not live with you?	SONS ELSEWHERE	
	And how many daughters are alive but do not live with you?	DAUGHTERS ELSEWHERE	
	IF NONE, RECORD '00'.		
206	Have you ever given birth to a boy or girl who was born alive but later died?		
	IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES 1 NO 2	→ 208
207	How many boys have died?	BOYS DEAD	
	And how many girls have died?	GIRLS DEAD	
	IF NONE, RECORD '00'.		
208	Women sometimes have pregnancies that do not result in a live born child. That is, a pregnancy can end in a miscarriage, or the child can be born dead. Have you ever had a pregnancy that did not end in a live birth?	YES 1 NO 2	→ 210
209	How many pregnancies have you had that did not end in a live birth?	PREGNANCY LOSSES	
210	SUM ANSWERS TO 203, 205, 207 AND 209, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL PREGNANCIES	
211	CHECK 210:		
	Just to make sure that I have this right: you have had in TOTAL pregnancies during your life. Is that correct?		
	YES NO CORRECT 201-210 AS NECESSARY.		
212	CHECK 210:		
	ONE OR MORE PREGNANCIES		→ 234
	↓		

214	215	216	217	218	219	220	221
PREGN ANCY HISTORY NUMBER	Think back to your first pregnancy. Was that a single or multiple pregnancy?	Was the baby born alive, born dead, or lost before birth?	Did that baby cry, move, or breathe when it was born?	What name was given to the child?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: When is his/her birthday?	Is (NAME) still alive?
01	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 22
02	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTHYEAR	YES NO 22
03	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 22
04	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)←	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 22
05	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 22
06	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)←	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 22
07	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← BORN DEAD 2 LOST BEFORE FULL TERM 3	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO

214	215	216	217	218	219	220	221
PREGN ANCY HISTORY NUMBER	Think back to your first pregnancy. Was that a single or multiple pregnancy?	Was the baby born alive, born dead, or lost before birth?	Did that baby cry, move, or breathe when it was born?	What name was given to the child?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: When is his/her birthday?	Is (NAME) still alive?
08	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218) ← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226) ← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 2
09	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218) ← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226) ← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 2
10	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218) ← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226) ← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 2
11	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218) ← J BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226) ← J	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 2
12	SING 1 MULT 2	BORN ALIVE 1 (SKIP TO 218)← BORN DEAD 2 LOST BEFORE FULL TERM 3 (SKIP TO 226)←	YES 1 NO 2 ↓ 226	NAME	BOY 1 GIRL 2	MONTH YEAR	YES NO 2

222 IF BORN ALIVE	223 AND STILL LI	224 VING:	225 IF DEAD:	226 IF BORN DEAD OR	227 LOST BEFORE E	228 BIRTH:	229
How old was (NAME) at his/her last birthday? RECORD AGE IN COM- PLETED YEARS.	Is (NAME) living with you?	RECORD HOUSE- HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE- HOLD).	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	In what month and year did this pregnancy end?	How many months did this pregnancy last? RECORD IN COM- PLETED MONTHS.	Did you or someone else do something to end this pregnancy?	Were there any other pregnancies between the previous pregnancy and this pregnancy?
AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (NEXT PREGNANCY)	DAYS 1 MONTHS 2 YEARS 3 (NEXT PREGNANCY)	MONTH	MONTHS	YES 1 NO 2	
AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 ADD ◀J PREGNANCY NO 2 NEXT◀ PREGNANCY
AGE IN YEARS	YES 1 NO 2	(GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 ADD ◀ <sup>J</sup> PREGNANCY NO 2 NEXT ◀ PREGNANCY
AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD <b>4</b> PREGNANCY NO 2 NEXT <b>4</b> PREGNANCY
AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD <b>4</b> PREGNANCY NO 2 NEXT <b>4</b> PREGNANCY
AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER	DAYS 1	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 ADD ◄ <sup>J</sup> PREGNANCY NO 2 NEXT◀ <sup>J</sup> PREGNANCY
AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 ADD <b>4</b> PREGNANCY NO 2 NEXT <b>4</b> PREGNANCY

		-	-	-				
222 IF BOR	N ALIVE	223 AND STILL LI	224 VING:	225 IF DEAD:	226 IF BORN DEAD OR	227 LOST BEFORE E	228 BIRTH:	229
How old (NAME) his/her la birthday RECOR AGE IN COM- PLETED YEARS.	at ast ? D	Is (NAME) living with you?	RECORD HOUSE- HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE- HOLD).	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	In what month and year did this pregnancy end?	How many months did this pregnancy last? RECORD IN COM- PLETED MONTHS.	Did you or someone else do something to end this pregnancy?	Were there any other pregnancies between the previous pregnancy and this pregnancy?
	GE IN ÆARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD ◄ <sup>1</sup> PREGNANCY NO 2 NEXT ◀ <sup>1</sup> PREGNANCY
	IGE IN TEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD ◄ <sup>1</sup> PREGNANCY NO 2 NEXT ◀ <sup>1</sup> PREGNANCY
	GE IN /EARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD <b>4</b> PREGNANCY NO 2 NEXT <b>4</b> PREGNANCY
	GE IN ÆARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 229)	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD ◄ <sup>J</sup> PREGNANCY NO 2 NEXT ◀ <sup>J</sup> PREGNANCY
	GE IN ÆARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER	DAYS 1 MONTHS 2 YEARS 3 (GO TO 229)	MONTH	MONTHS	YES 1 NO 2	YES 1 ADD ◄ <sup>1</sup> PREGNANCY NO 2 NEXT ◀ <sup>1</sup> PREGNANCY
230			egnancy since the REGNANCY(S) IN	e last pregnancy mentioned? I TABLE.				•
231	N	ARE 210 WITH JMBERS RE SAME		NUMBERS ARE	ABOVE AND MARK:	ECONCILE)		
232	CHECK	220 AND EN	N	ER OF BIRTHS IN 2062 OF UMBER OF BIRTHS ONE				→ 234

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
233	FOR EACH BIRTH SINCE BAISAKH 2062, ENTER 'B' IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEI ASK THE NUMBER OF MONTHS THE PREGNANCY LASTE PRECEDING MONTHS ACCORDING TO THE DURATION OF OF 'P'S MUST BE ONE LESS THAN THE NUMBER OF MON' CHECK 227 FOR EACH PREGNANCY THAT DID NOT END IF YES (CODE '1' CIRCLED), ENTER 'A' FOR ABORTION OF OR `S' FOR STILLBIRTH, IN CALENDAR IN THE MONTH TH AND 'P' FOR THE REMAINING NUMBER OF COMPLETED M	FT OF THE 'B' CODE. FOR EACH BIRTH, D AND RECORD 'P' IN EACH OF THE F PREGNANCY. (NOTE: THE NUMBER THS THAT THE PREGNANCY LASTED.) IN A LIVE BIRTH. CHECK 228. C' (IF CODE '2' CIRCLED) FOR MISCARRIAGE AT THE PREGNANCY TERMINATED	
234	Are you pregnant now?	YES	<b>1</b> → 237A
235	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS	
236	When you got pregnant, did you want to get pregnant at that time?	YES 1 NO 2	<b>→</b> 237A
237	Did you want to have a baby later on or did you not want any (more) children?	LATER	
237A	CHECK 226 AND 228: HAD ABORTION SINCE 2062 (1 CIRCLED IN 228) CHECK 226 AND 228: DID NOT HAVE ABO SINCE 2062 (2 CIRCLE IN 228 OR NOT A	CE 2062	238
237B	What was the main reason you decided to have this (last) abortion?	HEALTH OF MOTHER01RISK OF BIRTH DEFECT02NO MONEY TO TAKE CARE OF BABY03TOO YOUNG TO HAVE CHILD04NOT READY TO BE A MOTHER05WANTED TO CONTINUE SCHOOLING06DID NOT LOVE THE FATHER07WANTED TO CONTINUE WORKING09WANTED TO CONTINUE WORKING09WANTED TO SPACE CHILD10PARTNER DID NOT WANT CHILD11CHILD'S SEX12BECAUSE OF RAPE13TO AVOID SHAME14AFRAID OF PARENTS15NO ONE TO HELP LOOK AFTER CHILD16PARENTS INSISTED17FATHER OF CHILD DIED18OTHER96(SPECIFY)	
237C	What did you do to end this pregnancy?	DRANK MILK/COFFEE/OTHER LIQUID WITH LOTS OF SUGAR	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
237D	Who did you see to get this done?	HEALTH PROFESSIONAL	
	PROBE: Anyone else?	NURSE/MIDWIFE B	
		HEALTH ASST/HLTH. WKR C	
		MCH WORKER D	
	CIRCLE ALL MENTIONED.	VHW E	
	CINCLE ALL MENTIONED.	OTHER PERSON	
		PHARMACIST/CHEMICAL SELLER F	
		TRADITIONAL BIRTH ATTENDANT G	
		FCHV H	
		RELATIVE/FRIEND I	
		TRADITIONAL PRACTITIONER J	
		OTHER X	
		(SPECIFY)	
		NO ONE	
237E	Where did you go to get this done?	HOME	
		YOUR HOME A	
		OTHER HOME B	
		GOVT. SECTOR	
		GOVT. HOSPITAL C	
		PHC CENTER D	
		(SPECIFY)	
		HEALTH POST E	
		SUB-HEALTH	
		PHC OUTREACH	
		OTHER GOVT H	
		(SPECIFY)	
		NON-GOVT. (NGO)	
		MARIE STOPES I	
		FPAN J	
		(SPECIFY)	
		OTHER NGO K SPECIFY	
		SPECIFT	
		PRIVATE MED. SECTOR	
		PVT. HOSPITAL/CLINIC	
		NURSING HOME L	
		(SPECIFY)	
		OTHER PRIVATE MED. M	
		SPECIFY	
		OTHER X	
		SPECIFY	
37F	Did you have any complications when you had this abortion?	YES 1	
		NO 2	
37G	In the first one month after the abortion, did you have any	YES 1	
	health problems because of the abortion?	NO 2	
37H	How much did you pay for the following services?		
	Abortion service?	ABORTION	
	Post abortion service?	POST ABORTION	
	RECORD 9995 IF SERVICE NOT TAKEN.		
	Did anyone talk to you about family planning methods during	YES 1	
371	Did anyone talk to you about family planning methods during		
371	your post abortion visit?	NO	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
238	When did your last menstrual period start? (DATE, IF GIVEN)	DAYS AGO    1      WEEKS AGO    2      MONTHS AGO    3      YEARS AGO    4      IN MENOPAUSE/      HAS HAD HYSTERECTOMY    994      BEFORE LAST BIRTH    995      NEVER MENSTRUATED    996	
239	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	YES	241A
240	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS	
		OTHER 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
241A	Is abortion legal in Nepal?	YES	2 -
241B	What are the conditions under which a woman can have an abortion in Nepal?	PREGNANCY OF 12 WEEKS OR LESS         GESTATION FOR ANY WOMAN       A         PREGNANCY OF 18 WEEKS IF IT IS         A RESULT OF RAPE OR INCEST       B         PREGNANCY OF ANY DURATION IF         LIFE OF MOTHER IS AT RISK       C         PREGNANCY OF ANY DURATION IF         MOTHER'S PHYSICAL AND MENTAL         HEALTH AT RISK       D         FETUS IS DEFORMED       E         OTHER       (SPECIFY)         DON'T KNOW       Z	
241C	Do you know of a place where a woman can go to get a safe abortion?	YES	2 -
241D	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. (NAME OF PLACE(S))	PUBLIC SECTOR         GOVT. HOSPITAL/CLINIC       A         PHC CENTER       B         HEALTH POST       C         SUB-HEALTH POST       D         PHC OUTREACH       E         FCHV       F         OTHER GOVT.	

## SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.					
	Have you ever heard of (METHOD)?					
01	<b>Female Sterilization</b> . PROBE: Women can have an operation to avoid having any more children.	YES 1 NO 2				
02	Male Sterilization. PROBE: Men can have an operation to avoid having any more children.	YES 1 NO 2				
03	<b>IUD</b> PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES 1 NO 2				
04	<b>Injectables</b> . PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES 1 NO 2				
05	<b>Implants</b> . PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES 1 NO 2				
06	<b>Pill</b> . PROBE: Women can take a pill every day to avoid becoming pregnant.	YES 1 NO 2				
07	<b>Condom</b> . PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES 1 NO 2				
08	<b>Rhythm Method</b> . PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES 1 NO 2				
09	Withdrawal. PROBE: Men can be careful and pull out before climax.	YES 1 NO 2				
10	<b>Emergency Contraception</b> . PROBE: As an emergency measure, within three/five days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES 1 NO 2				
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES 1				
		(SPECIFY)				
		(SPECIFY)				
		NO 2	<u> </u>			
302	CHECK 234:					
	NOT PREGNANT OR UNSURE		→ 311			
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES 1 NO 2	→ 311			

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NO.	QUESTIONS AND FILTERS CODING CATEGORIES		SKIP
304	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST. What is the brand name of the pills you are using?	FEMALE STERILIZATIONAMALE STERILIZATIONBIUDCINJECTABLESDIMPLANTSEPILLFCONDOMGFEMALE CONDOMHDIAPHRAGMIFOAM/JELLYJRHYTHM METHODLWITHDRAWALMOTHER TRADITIONAL METHODYNILOCON WHITE01	→ 307 → 308A → 306 → 308A
	IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	NILCOON WITE       01         SUNAULO GULAPH       02         FEMINYL       03         FEMICON       04         OK PILLS       05         OTHER       96         (SPECIFY)       98	► 308A
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	DHAAL       01         PANTHER       02         BLACK COBRA       03         KAMASUTRA       04         JODI       05         NUMBER 1       06         MOHP-NO BRAND       07         LILY       08         VEGA       09         SKINLESS SKIN       10         SAFETY       11         GOLD       12         OTHER       96         (SPECIFY)       98	→ 308A
307	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	PUBLIC SECTOR         GOVT. HOSPITAL/CLINIC       11         PHC CENTER       12         MOBILE CLINIC       13         OTHER GOVT.       16         (SPECIFY)       16         NON-GOVT (NGO) SECTOR       17         FPAN       21         MARIE STOPES       22         ADRA       23         NEPAL RED CROSS       24         UMN       25         OTHER NGO       26         (SPECIFY)       26         PRIVATE MEDICAL SECTOR         PRIVATE HOSPITAL/CLINIC/         NURSING HOME       31         OTHER PRIVATE         MEDICAL       36         (SPECIFY)       96         OTHER       96         ON'T KNOW       98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
308	In what month and year was the sterilization performed?		
308A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH	
309	CHECK 308/308A, 220 AND 226:		
	ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308/308A		
	GO BACK TO 308/308A, PROBE AND RECORD MONTH AND YEA USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR F		
310	CHECK 308/308A:		
	YEAR IS 2062 OR LATER	YEAR IS 2061 OR EARLIER	
	ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING.	ENTER CODE FOR METHOD USED IN M INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO BAISAKH 2062.	
311	I would like to ask you some questions about the times you or your pa pregnant during the last few years.	artner may have used a method to avoid getting	
	USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AN RECENT USE, BACK TO BAISAKH 2062. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF		
	IN COLUMN 1, ENTER METHOD USE CODE OR '0' FOR N	ONUSE IN EACH BLANK MONTH.	
	ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Whice * When did you start using that method? How long a * How long did you use the method then?		
	IN COLUMN 2, ENTER CODES FOR DISCONTINUATION N NUMBER OF CODES IN COLUMN 2 MUST BE SAME AS N METHOD USE IN COLUMN 1.		
	ASK WHY SHE STOPPED USING THE METHOD. IF A PRE WHETHER SHE BECAME PREGNANT UNINTENTIONALLY DELIBERATELY STOPPED TO GET PREGNANT.	-	
	stop to get pregnant, or did you stop for some othe	GNANT, ASK: How many months did it take you to	

NO.	QUESTIONS AND FILTERS CODING CATEGORIES		
312	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE ME	THOD IN ANY MONTH	
	NO METHOD USED ANY METHOD USED		
			→ 314
	*		P 314
313	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES 1 NO 2	<b>→</b> 324
314	CHECK 304:	NO CODE CIRCLED	→ 324
	CIRCLE METHOD CODE:	FEMALE STERILIZATION       01         MALE STERILIZATION       02	→ 317A → 326
	CIRCLE METHOD CODE.	IUD         03	- 320
	IF MORE THAN ONE METHOD CODE CIRCLED IN 304,	INJECTABLES	
	CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IMPLANTS         05           PILL         06	
		CONDOM 07	
		FEMALE CONDOM         08           DIAPHRAGM         09	
		FOAM/JELLY 10	
		RHYTHM METHOD 12	→ 315A
		WITHDRAWAL 13 OTHER MODERN METHOD 95	326
		OTHER TRADITIONAL METHOD 96	
315	You first started using (CURRENT METHOD) in (DATE FROM	PUBLIC SECTOR	
010	308/308A). Where did you get it at that time?	GOVT. HOSPITAL/CLINIC 11	
		PHC CENTER 12	
		HEALTH POST         13           SUB-HEALTH POST         14	
		PHC OUTREACH 15	
		MOBILE CLINIC 17	
		FCHV         18           CONDOM BOX         19	
315A	Where did you learn how to use the rhythm method?	OTHER GOVT 16 (SPECIFY)	
		NON-GOVT. (NGO) SECTOR	
		FPAN         21           MARIE STOPES         22	
		ADRA 23	
	PROBE TO IDENTIFY THE TYPE OF SOURCE.	NEPAL RED CROSS         24           UMN         25	
	IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR.	OTHER NGO. 26	
	WRITE THE NAME OF THE PLACE.	(SPECIFY)	
		PRIVATE MEDICAL SECTOR	
	(NAME OF PLACE)	PRIVATE HOSPITAL/CLINIC/ NURSING HOME	
		PHARMACY	
		SANGINI OUTLET	
		OTHER PRIVATE MEDICAL 36	
		(SPECIFY)	
		OTHER SOURCE	
		SHOP	
		FRIEND/RELATIVE 42	
		OTHER 96	
		(SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IUD       03         INJECTABLES       04         IMPLANTS       05         PILL       06         CONDOM       07         FEMALE CONDOM       08         DIAPHRAGM       09         FOAM/JELLY       10         RHYTHM METHOD       12	$ \rightarrow 323  \rightarrow 320  \rightarrow 326 $
317 317A	At that time, were you told about side effects or problems you might have with the method? When you got sterilized, were you told about side effects or	YES 1 NO 2	→ 319
01111	problems you might have with the method?		
318	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES 1 NO 2	→ 320
319	Were you told what to do if you experienced side effects or problems?	YES 1 NO 2	
320	CHECK 317: CODE '1' CIRCLED CIRCLED CODE '1' NOT CIRCLED CI	YES 1 NO 2	→ 322
321	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES 1 NO 2	
322	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION01MALE STERILIZATION02IUD03INJECTABLES04IMPLANTS05PILL06CONDOM07FEMALE CONDOM08DIAPHRAGM09FOAM/JELLY10RHYTHM METHOD12WITHDRAWAL13OTHER MODERN METHOD95OTHER TRADITIONAL METHOD96	→ 326 → 326 → 326

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
323	Where did you obtain (CURRENT METHOD) the last time?	PUBLIC SECTOR		
		GOVT. HOSPITAL/CLINIC	11	h
	PROBE TO IDENTIFY THE TYPE OF SOURCE.	PHC CENTER	12	
		HEALTH POST	13	
	IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE		14	
	SECTOR, WRITE THE NAME OF THE PLACE.		15	
			17	
			18	
		CONDOM BOX	19	
	(NAME OF PLACE)	OTHER GOVT.	_ 16	
		(SPECIFY)		
		NON-GOVT. (NGO) SECTOR		
		FPAN	21	
		MARIE STOPES	22	
		ADRA	23	
		NEPAL RED CROSS	24	
		UMN	25	→ 326
		OTHER NGO.	26	
		(SPECIFY)	-	
		PRIVATE MEDICAL SECTOR		
		PRIVATE HOSPITAL/CLINIC/		
		NURSING HOME	31	
		PHARMACY	32	
		SANGINI OUTLET	33	
		OTHER PRIVATE		
		MEDICAL	36	
		(SPECIFY)		
		OTHER SOURCE		
		SHOP	41	
		FRIEND/RELATIVE	42	
		OTHER	96	Ц
		(SPECIFY)		
		OTHER(SPECIFY)	96	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
324	Do you know of a place where you can obtain a method of family planning?	ere you can obtain a method of family YES 1 NO 2 -		→ 326
325	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE(S))	PHC CENTER         HEALTH POST         SUB-HEALTH POST         PHC OUTREACH         MOBILE CLINIC         FCHV         CONDOM BOX         OTHER GOVT.         (SPECIFY)         NON-GOVT. (NGO) SECTOR         FPAN         MARIE STOPES         ADRA         NEPAL RED CROSS         UMN         OTHER NGO.         (SPECIFY)         PRIVATE MEDICAL SECTOR         PRIVATE HOSPITAL/CLINIC/         NURSING HOME         PHARMACY         SANGINI OUTLET         OTHER PRIVATE         MEDICAL         (SPECIFY)	ABCDEFGHI JKLMNO PQR S TUX	
326	In the last 12 months, were you visited by a fieldworker (FCHV or RFHV) who talked to you about family planning?		1 2	
327	In the last 12 months, have you visited a health facility for care for yourself (or your children)?		1 2 -	→ 401
328	Did any staff member at the health facility speak to you about family planning methods?		1 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 232: ONE OR MORE		10		542
	BIRTHS IN 2062 OR LATER	→ BIRTH IN 206 → OR LATE	62		
402	CHECK 220: ENTER IN THE TABLE LIN IN 2062 OR LATER. ASK THE QUESTIC (IF THERE ARE MORE THAN 3 BIRTHS Now I would like to ask some questions a	NS ABOUT ALL OF THESE BIRTHS , USE LAST 2 COLUMNS OF ADDIT	5. BEGIN WITH THE LAST BIRTH IONAL QUESTIONNAIRES).		
403	PREGNANCY HISTORY NUMBER FROM 214 IN PREGNANCY HISTORY	LAST BIRTH PREGNANCY HISTORY NUMBER	NEXT-TO-LAST BIRTH PREGNANCY HISTORY NUMBER	SECOND-FROM-LAST BI PREGNANCY HISTORY NUMBER	RTH
404	FROM 218 AND 221	NAME	NAME	NAME	,
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES 1 (SKIP TO 408)← NO 2	YES 1 (SKIP TO 424)← NO 2	YES (SKIP TO 424) <del>∢</del> NO	
406	Did you want to have a baby later on, or did you not want any (more) children?	LATER	LATER 1 NO MORE 2 (SKIP TO 424) ← J	LATER NO MORE (SKIP TO 424) <del>+</del>	. 2
407	How much longer did you want to wait?	MONTHS 1 YEARS 2 DON'T KNOW	MONTHS 1 YEARS 2 DON'T KNOW 998	MONTHS1 YEARS2 DON'T KNOW	998
408	Did you see anyone for antenatal care for this pregnancy?	YES 1 NO 2 (SKIP TO 414B) ← J			
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED. IF FCHV NOT MENTIONED PROBE	HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE B HEALTH ASST./ AHW C MCH WORKER D VHW E OTHER PERSON TRADITIONAL BIRTH ATTENDANT F FCHV G OTHER X (SPECIFY) NO ONE			

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S). IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE(S))	HOME YOUR HOME A OTHER HOME B GOVT. SECTOR GOVT. HOSPITAL C PHC CENTER D HEALTH POST . E SUB-HEALTH F PHC OUTREACH . G OTHER GOVT. H (SPECIFY) NON-GOVT. (NGO) FPAN I MARIE STOPES . J ADRA K UMN L OTHER NGO (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/NURSING HOME N OTHER PRIVATE MED. O (SPECIFY) OTHERX (SPECIFY)		
411	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS 98		
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES DON'T KNOW 98		
413	As part of your antenatal care during this pregnancy, were any of the following done at least once: Was your blood pressure measured?	YES NO BP 1 2 URINE 1 2		
	Did you give a urine sample? Did you give a blood sample?	URINE         1         2           BLOOD         1         2		
413A	During (any of) your antenatal care visit(s), were you advised to use a skilled birth attendant?	YES		
414	During (any of) your antenatal care visit(s), were you told about things to look out for that might suggest problems with the pregnancy?	YES 1 NO 2 DON'T KNOW 8		
414A	Were you told where to go if you had any problems with the pregnancy?	YES 1 NO 2 DON'T KNOW 8		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
414B	What kind of preparation did you make beforehand for the delivery of (NAME)? Anything else? CIRCLE ALL MENTIONED	SAVED MONEY A ARRANGED FOR TRANSPORT B FOUND BLOOD DONOR C CONTACTED HLTH WKR TO HELP WITH DELIVERY D BOUGHT SAFE DELIVERY KIT E ARRANGED FOOD F ARRANGED CLOTHES G OTHER X (SPECIFY) NO PREPARATION Y		
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES 1 NO 2 (SKIP TO 418) ← DON'T KNOW 8		
416	During this pregnancy, how many times did you get a tetanus injection?	TIMES		
417	CHECK 416:	2 OR MORE OTHER TIMES (SKIP TO 421)		
418	At any time before this pregnancy, did you receive any tetanus injections?	YES		
419	Before this pregnancy, how many times did you receive a tetanus injection?	TIMES		
	IF 7 OR MORE TIMES, RECORD '7'.	DON'T KNOW 8		
420	How many years ago did you receive the last tetanus injection before this pregnancy?	YEARS AGO		
421	During this pregnancy, were you given or did you buy any iron/folic acid tablets?	YES 1 NO 2		
	SHOW TABLETS.	(SKIP TO 423) - DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets?	DAYS		
	IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DONTINIOW 990	-	
422A	CHECK 422:	LESS THAN OTHER 180 DAYS (SKIP TO 423)		
422B	What is the main reason for not taking the iron/folic acid tablets for atleast 180 days?	DID NOT LIKE IT 1 DID NOT RECEIVE COMPLETE DOSE 2 NOT AVAILABLE 3 DID NOT KNOW 4 OTHER 6 (SPECIFY)		
423	During this pregnancy, did you take any drug for intestinal worms?	YES         1           NO         2           DON'T KNOW         8		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
424	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE1LARGER THAN2AVERAGE2AVERAGE3SMALLER THAN4AVERAGE4VERY SMALL5DON'T KNOW8	VERY LARGE1LARGER THAN2AVERAGE2AVERAGE3SMALLER THAN4AVERAGE4VERY SMALL5DON'T KNOW8	VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8
425	Was (NAME) weighed at birth?	YES 1	YES 1	YES 1
		NO2 (SKIP TO 427) ← DON'T KNOW 8	NO2 (SKIP TO 427) ← DON'T KNOW 8	NO2 (SKIP TO 427) ← DON'T KNOW 8
426	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD	KG FROM CARD	KG FROM CARD
	CARD, IF AVAILABLE.	KG FROM RECALL 2	KG FROM RECALL 2	KG FROM RECALL 2
427	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL	HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE . B HEALTH ASST./ AHW C MCHW D VHW E	HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE . B HEALTH ASST./ AHW C MCHW D VHW E	HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE . B HEALTH ASST./ AHW C MCHW D VHW E
	MENTIONED. IF FCHV NOT MENTIONED PROBE IF RESPONDENT SAYS NO ONE	OTHER PERSON TRADITIONAL BIRTH ATTENDANT F FCHVG RELATIVE/FRIEND . H	OTHER PERSON TRADITIONAL BIRTH ATTENDANT F FCHV G RELATIVE/FRIEND . H	OTHER PERSON TRADITIONAL BIRTH ATTENDANT F FCHV G RELATIVE/FRIEND. H
	ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	OTHER X (SPECIFY) NO ONE Y (SKIP TO 428)	OTHER X (SPECIFY) X NO ONE	OTHER (SPECIFY) NO ONE
427A	Immediately after delivery of (NAME) did you receive an injection in the thigh or buttock?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
428	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	HOME YOUR HOME 11 (SKIP TO 431A) $\leftarrow$ OTHER HOME 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH POST 24 OTHER GOVT. 26 (SPECIFY) NON-GOVT. SECTOR FPAN 31 ADRA 32 UMN 33 OTHER NGO 	HOME YOUR HOME 11 (SKIP TO 442) $\leftarrow$ OTHER HOME 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH POST 24 OTHER GOVT. 26 (SPECIFY) NON-GOVT. SECTOR FPAN 31 ADRA 32 UMN 33 OTHER NGO 	HOME YOUR HOME 11 (SKIP TO 442) ← OTHER HOME 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH POST 24 OTHER GOVT. 26 (SPECIFY) NON-GOVT. SECTOR FPAN 31 ADRA 32 UMN 33 OTHER NGO 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/N.HOME 41 OTHER PRIVATE MED. 46 (SPECIFY) OTHER 96 (SPECIFY)
428A	Did you receive cash incentive for transportation from the facility after the delivery of (NAME)?	(SKIP TO 431A) ← YES 1 NO 2 DON'T KNOW 8	(SKIP TO 442) ◀	(SKIP TO 442) ◀
428B	Did the facility charge you any amount for the delivery of (NAME)?	YES 1 NO 2 DON'T KNOW 8		
428C	How long did it take you to reach the facility for delivery of (NAME)?	MINUTES DON'T KNOW 998		
429	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES 1 NO 2 (SKIP TO 430)◀	YES 1 NO 2 (SKIP TO 442)◀	YES 1 NO 2 (SKIP TO 442)
429A	Was it planned or was it carried out due to complication?	PLANNED 1 COMPLICATION 2	PLANNED 1 COMPLICATION 2	PLANNED 1 COMPLICATION 2
430	After you gave birth to (NAME), did anyone check on your health while you were still in the facility?	YES 1 (SKIP TO 433)◀ NO 2		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
431	Did anyone check on your health after you left the facility?	YES 1 (SKIP TO 433) ← 1 NO 2 (SKIP TO 436) ← 1		
431A	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH. A FACILITY NOT OPEN. B TOO FAR/ NO TRANS- PORTATION C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVID- ER AT FACILITY E HUSBAND/FAMILY DID NOT ALLOW F SECURITY CONCERNS G NOT NECESSARY H NOT CUSTOMARY I CHILD BORN BEFORE REACHING FACILITY J OTHER X (SPECIFY)		
431B	Was a special clean delivery kit used? SHOW CLEAN DELIVERY KIT MARKETED BY CRS	YES 1 (SKIP TO 431D) ← NO 2 DON'T KNOW 8		
431C	When (NAME) was born, what instrument was used to cut the umblical cord?	NEW/BOILED         BLADE         1           USED BLADE         2           KNIFE         3           HASIYA         4           KHUKURI         5           SCISSORS         7           OTHER         6		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
431D	Was anything placed on the stump after the umblical cord was cut?	YES 1 NO 2 (SKIP TO 431F) ← DON'T KNOW 8		
431E	What was placed on the stump?	OIL       A         ASH       B         VERMILON       C         OINTMENT/POWDER       D         ANIMAL DUNG       E         TURMERIC       F         GHEE       G         CHLORHEXIDINE       H         OTHER       X         (SPECIFY)       DON'T KNOW         Z		
431F	Was (NAME) dried before the placenta was delivered?	YES 1 NO 2 DON'T KNOW 8		
431G	Was (NAME) placed on your belly/breast before delivery of the placenta?	YES         1           NO         2           DON'T KNOW         8		
431H	Was (NAME) wrapped in cloth before the placenta was delivered?	YES 1 NO 2 DON'T KNOW 8		
4311	How long after delivery was (NAME) bathed for the first time? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 DON'T KNOW 998		
432	After you gave birth to (NAME), did anyone check on your health?	YES 1 NO 2 (SKIP TO 436)←		
433	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL           DOCTOR         11           NURSE/MIDWIFE         12           HEALTH ASST./         13           AHW         13           MCH WORKER         14           VHW         15           FCHV         16		
433A	Did this person talk to you about using a family planning method?	OTHER         96           (SPECIFY)         1           NO         2           DON'T KNOW         8		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
434	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 DON'T KNOW 998		
436	In the two months after (NAME) was born, did any health care provider check on his/her health?	YES		
437	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH 1 DAYS AFTER BIRTH 2 WKS AFTER BIRTH 3 DON'T KNOW 998		
438	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON. IF FCHV NOT MENTIONED PROBE	HEALTH PERSONNEL         DOCTOR       11         NURSE/MIDWIFE       12         HEALTH ASST./       12         AHW       13         MCH WORKER       14         VHW       15         FCHV       16         OTHER       96         (SPECIFY)       17		
439	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	HOME YOUR HOME 11 OTHER HOME 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH 24 PHC OUTREACH 25 OTHER GOVT. 26 (SPECIFY) NON-GOVT. SECTOR FPAN 31 MARIE STOPES 32 ADRA 33 UMN 34 OTHER GOVT. 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/N.HOME . 41 OTHER PRIVATE MED. 46 (SPECIFY) OTHER96		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
440	In the first two months after delivery, did you receive a vitamin A dose like this? SHOW VITAMIN A	YES 1 NO 2 DON'T KNOW 8		
440A	CAPSULES After delivery were you given or did you buy any iron/folic acid tablets? SHOW TABLETS.	YES 1 NO 2 (SKIP TO 441) ← DON'T KNOW 8		
440B	After delivery, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . DON'T KNOW 98		
441	Has your menstrual period returned since the birth of (NAME)?	YES 1 (SKIP TO 443) ← 1 NO 2 (SKIP TO 444) ← 1		
442	Did your period return between the birth of (NAME) and your next pregnancy?		YES 1 NO 2 (SKIP TO 446)←	YES 1 NO 2 (SKIP TO 446)←
443	For how many months after the birth of (NAME) did you not have a period?	MONTHS 98	MONTHS DON'T KNOW 98	MONTHS
444	CHECK 234: IS RESPONDENT PREGNANT?	NOT PREG- NANT VINSURE (SKIP TO 446)		
445	Have you had sexual intercourse since the birth of (NAME)?	YES 1 NO 2 (SKIP TO 447)←		
446	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS DON'T KNOW 98	MONTHS DON'T KNOW 98	MONTHS
447	Did you ever breastfeed (NAME)?	YES 1 (SKIP TO 449) ← NO 2	YES 1 NO 2	YES 1 NO 2

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
448	CHECK 404: IS CHILD LIVING?	LIVING DEAD (SKIP TO 454) (GO BACK TO 405 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 501)		
449	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY 000 HOURS 1 DAYS 2		
450	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES 1 NO 2 (SKIP TO 452)◀		
451	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN         BREAST MILK )       A         PLAIN WATER       B         SUGAR OR GLU-       COSE WATER       C         GRIPE WATER       D       SUGAR-SALT-WATER         SOLUTION       E       FRUIT JUICE       F         INFANT FORMULA       G       TEA/INFUSIONS       H         COFFEE       I       HONEY       J         OTHER      X      X		
452	CHECK 404: IS CHILD LIVING?	LIVING DEAD (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING DEAD (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING DEAD (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)
453	Are you still breastfeeding (NAME)?	YES 1 NO 2		
454	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES         1           NO         2           DON'T KNOW         8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
455		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

501	ENTER IN THE TABLE THE PREGNANCY HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2062 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).					
502	PREGNANCY HISTORY NUMBER FROM 214 IN BIRTH HISTORY	LAST BIRTH PREGNANCY HISTORY NUMBER	NEXT-TO-LAST BIRTH PREGNANCY HISTORY NUMBER	SECOND-FROM-LAST BIRTH PREGNANCY HISTORY NUMBER		
503	FROM 218 AND 221	NAME LIVING DEAD (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 539)	NAME LIVING DEAD (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 539)	NAME LIVING DEAD (GO TO 503 IN NEXT- TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 539)		
504	Do you have a card where (NAME)'s vaccinations are written down? IF YES: May I see it please?	YES, SEEN 1 (SKIP TO 506) ← J YES, NOT SEEN 2 (SKIP TO 509) ← J NO CARD 3	YES, SEEN 1 (SKIP TO 506) ← J YES, NOT SEEN 2 (SKIP TO 509) ← J NO CARD 3	YES, SEEN 1 (SKIP TO 506) ← J YES, NOT SEEN 2 (SKIP TO 509) ← J NO CARD 3		
505	Did you ever have a vaccination card for (NAME)?	YES 1 (SKIP TO 509) ← NO 2	YES 1 (SKIP TO 509) ← NO 2	YES 1 (SKIP TO 509) ← NO 2		
506	BCG POLIO 1 POLIO 2 POLIO 3 DPT 1/HEP B1 DPT 2/HEP B2 DPT 3/HEP B3 DPT1/HEP B1/Hib 1 DPT 2/HEP B2/Hib2 DPT 3/HEP B3/Hib3 MEASLES JAPANESE ENCEPHALITIS	AY' COLUMN IF CARD SHOWS THAT A LAST BIRTH DAY MONTH YEAR  LAST BIRTH DAY MONTH YEAR  BCC P  C C C C C C C C C C C C C C C C	1	SECOND-FROM-LAST BIRTH         DAY       MONTH       YEAR         G       I       I       I       I         1       I       I       I       I       I         2       I       I       I       I       I       I         3       I       I       I       I       I       I         3       I       I       I       I       I       I         31       I       I       I       I       I       I         32       I       I       I       I       I       I         33       I       I       I       I       I       I       I         4       I       I       I       I       I       I       I       I         4       I       I       I       I       I       I       I       I         5       I       I       I       I       I       I       I       I       I         6       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I		
507	CHECK 506:	OTHER ALL RECORDED (GO TO 511)	ALL RECORDED	ALL RECORDED		

# SECTION 5. CHILD IMMUNIZATION, HEALTH AND NUTRITION

Т

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
508	Has (NAME) had any vaccinations that are not recorded on this card, including vaccinations given in a national immunization day campaign?	YES 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506)	YES 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506)	YES 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506)
	RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 506 THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	(SKIP TO 511) ← 2 (SKIP TO 511) ← 2 DON'T KNOW 8	(SKIP TO 511) ← 2 NO 2 (SKIP TO 511) ← 3 DON'T KNOW 8	(SKIP TO 511) ◀ NO 2 (SKIP TO 511) ◀ DON'T KNOW 8
509	Did (NAME) ever have any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES	YES	YES 1 NO 2 (SKIP TO 511) ← DON'T KNOW 8
510	Please tell me if (NAME) had any of the following vaccinations:			
510A	A BCG vaccination against tuberculosis, that is, an injection in the right arm that usually causes a scar?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
510B	Polio vaccine, that is, drops in the mouth?	YES	YES 1 NO 2 (SKIP TO 510D) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 510D) ← DON'T KNOW 8
510C	How many times was the polio vaccine given?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
510D	A DPT/HEP B/Hib vaccination, that is, an injection given in the left thigh, usually at the same time as polio drops?	YES	YES 1 NO 2 (SKIP TO 510F) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 510F) ← DON'T KNOW 8
510E	How many times was the DPT/HEP B/Hib vaccination given?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
510F	A measles injection, that is, a shot in the right thigh at the age of 9 months or older - to prevent him/her from getting measles?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
510G	A Japanese encephalitis vaccination, that is, an injection given in the upper arm between the age of 12-23 months of age?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
511	Were any of the vaccinations (NAME) received during the last two years given as part of a national immunization day campaign?	YES	YES	YES 1 NO 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW 8 (SKIP TO 511B)

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
511A	At which national immunization day campaigns did (NAME) receive the polio vaccinations? RECORD ALL CAMPAIGNS MENTIONED.	CHAITRA 2066        A         JESTHA 2067        B         MAGH 2067        C         FALGUN 2067        D	CHAITRA 2066 A JESTHA 2067 B MAGH 2067 C FALGUN 2067 D	CHAITRA 2066        A         JESTHA 2067        B         MAGH 2067        C         FALGUN 2067        D
511B	Did (NAME) receive a vitamin A capsule during the event in Kartik/Baisakh?	YES 1	YES 1	YES 1
	IF THE INTERVIEW IS BEFORE BAISAKH, ASK ABOUT KARTIK. IF THE INTERVIEW IS AFTER BAISAKH, ASK ABOUT BAISAKH. SHOW THE CAPSULE.	NO 2 DON'T KNOW 8	NO 2 DON'T KNOW 8	NO 2 DON'T KNOW 8
512	In the last seven days, was (NAME) given VITA MISHRAN, or iron syrup like (this/any of these)?			
	SHOW VITA MISHRAN SACHET OR IRON SYRUP	YES	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
513	Was (NAME) given any drug for intestinal worms in the last six months (including any deworming	YES	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
514	Has (NAME) had diarrhea in the last 2 weeks?	YES	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8
515	Was there any blood in the stools?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
516	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk).			
	Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4NOTHING TO DRINK5DON'T KNOW8	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4NOTHING TO DRINK5DON'T KNOW8	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4NOTHING TO DRINK5DON'T KNOW8

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
517	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4STOPPED FOOD5NEVER GAVE FOOD6DON'T KNOW8	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4STOPPED FOOD5NEVER GAVE FOOD6DON'T KNOW8
518	Did you seek advice or treatment for the diarrhea from any source?	YES 1 NO 2 (SKIP TO 522) ←	YES 1 NO 2 (SKIP TO 522) ←	YES 1 NO 2 (SKIP TO 522)←
519	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF FCHV NOT MENTIONED PROBE IF FCHV NOT MENTIONED PROBE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE(S))	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH CLINIC E FCHV F OTHER GOVT. G (SPECIFY) NON-GOVT. (NGO) SECT. FPAN H UMN I OTHER NGO. G (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/NURSING HOME K PHARMACY L OTHER PRIVATE MED. (SPECIFY) OTHER SOURCE SHOP N TRADITIONAL PRACTITIONER . O OTHERX (SPECIFY)	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH CLINIC E FCHV F OTHER GOVT. (SPECIFY) NON-GOVT. (NGO) SECT. FPAN H UMN I OTHER NGO. (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/NURSING HOME K PHARMACY L OTHER PRIVATE MED. (SPECIFY) OTHER SOURCE SHOP N TRADITIONAL PRACTITIONER . O OTHERX (SPECIFY)	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH CLINIC E FCHV F OTHER GOVT. (SPECIFY) NON-GOVT. (NGO) SECT. FPAN H UMN I OTHER NGO. (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/NURSING HOME K PHARMACY L OTHER PRIVATE MED. (SPECIFY) OTHER SOURCE SHOP N TRADITIONAL PRACTITIONER O OTHER X (SPECIFY)
520	CHECK 519:	TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED (SKIP TO 522)	TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED (SKIP TO 522)	TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED (SKIP TO 522)
521	Where did you first seek advice or treatment? USE LETTER CODE FROM 519.	FIRST PLACE	FIRST PLACE	FIRST PLACE
522	Was he/she given any of the following to drink at any time since he/she started having the diarrhea: a) A fluid made from a special packet called Jeevan Jal/Navajeevan/Orestal?	YES NO DK FLUID FROM ORS PKT 1 2 8	YES NO DK FLUID FROM ORS PKT 1 2 8	YES NO DK FLUID FROM ORS PKT 1 2 8
	b) A government-recommended homemade fluid?	HOMEMADE FLUID 1 2 8	HOMEMADE FLUID 1 2 8	HOMEMADE FLUID 1 2 8

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
523	Was anything (else) given to treat the diarrhea?	YES	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8
524	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC A ANTIMOTILITY B ZINC C OTHER (NOT ANTI- BIOTIC, ANTI- MOTILITY, OR ZINC) D UNKNOWN PILL OR SYRUP E	PILL OR SYRUP ANTIBIOTIC A ANTIMOTILITY B ZINC C OTHER (NOT ANTI- BIOTIC, ANTI- MOTILITY, OR ZINC) D UNKNOWN PILL OR SYRUP E	PILL OR SYRUP ANTIBIOTIC A ANTIMOTILITY B ZINC C OTHER (NOT ANTI- BIOTIC, ANTI- MOTILITY, OR ZINC) D UNKNOWN PILL OR SYRUP E
		INJECTION ANTIBIOTIC F NON-ANTIBIOTIC G UNKNOWN INJECTION H	INJECTION ANTIBIOTIC F NON-ANTIBIOTIC G UNKNOWN INJECTION H	INJECTION ANTIBIOTIC F NON-ANTIBIOTIC G UNKNOWN INJECTION H
		(IV) INTRAVENOUS I	(IV) INTRAVENOUS I	(IV) INTRAVENOUS I
		HOME REMEDY/ HERBAL MED- ICINE J	HOME REMEDY/ HERBAL MED- ICINE J	HOME REMEDY/ HERBAL MED- ICINE J
		OTHER X	OTHER X (SPECIFY)	OTHER X
524A	CHECK 524: GIVEN ZINC?	CODE `C' CODE `C' CIRCLED NOT CIRCLED (SKIP TO 525)	CODE `C' CODE `C' CIRCLED NOT CIRCLED (SKIP TO 525)	CODE `C' CODE `C' CIRCLED NOT CIRCLED (SKIP TO 525)
524B	How many days was (NAME) given zinc?	DAYS DON'T KNOW 98	DAYS DON'T KNOW 98	DAYS DON'T KNOW 98
525	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
526	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES 1 NO 2 (SKIP TO 529) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 529) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 529) ← DON'T KNOW 8
527	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES	YES 1 NO 2 (SKIP TO 530) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 530) ← DON'T KNOW 8
528	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY 1 NOSE ONLY 2 BOTH 3 OTHER 6 (SPECIFY) DON'T KNOW 8 (SKIP TO 530)	CHEST ONLY 1 NOSE ONLY 2 BOTH 3 OTHER 6 (SPECIFY) DON'T KNOW 8 (SKIP TO 530)	CHEST ONLY       1         NOSE ONLY       2         BOTH       3         OTHER       6         (SPECIFY)         DON'T KNOW       8         (SKIP TO 530)

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
529	CHECK 525: HAD FEVER?	YES NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 539)	YES NO OR DK GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 539)	YES NO OR DK (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 539)
530	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8
531	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4STOPPED FOOD5NEVER GAVE FOOD6DON'T KNOW8	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS1SOMEWHAT LESS2ABOUT THE SAME3MORE4STOPPED FOOD5NEVER GAVE FOOD6DON'T KNOW8
532	Did you seek advice or treatment for the illness from any source?	YES 1 NO 2 (SKIP TO 536) ←	YES 1 NO 2 (SKIP TO 536)◀	YES
533	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF FCHV NOT MENTIONED PROBE	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH E FCHV F OTHER GOVT.	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH E FCHV F OTHER GOVT.	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH E FCHV F OTHER GOVT.
	IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.	G (SPECIFY) NON-GOVT. (NGO) SECT. FPAN H UMN I OTHER GOVT. (SPECIFY)	G (SPECIFY) NON-GOVT. (NGO) SECT. FPAN H UMN I OTHER GOVT. (SPECIFY)	G (SPECIFY) NON-GOVT. (NGO) SECT. FPAN H UMN I OTHER GOVT. (SPECIFY)
	(NAME OF PLACE(S))	PRIVATE MED. SECTOR PVT. HOSPITAL CLINIC/NURSING/ HOME K PHARMACY L OTHER PRIVATE MED M (SPECIFY) OTHER SOURCE SHOP N TRADITIONAL PRACTITIONER O OTHER X (SPECIFY)	PRIVATE MED. SECTOR PVT. HOSPITAL CLINIC/NURSING/ HOME K PHARMACY L OTHER PRIVATE MED M (SPECIFY) OTHER SOURCE SHOP N TRADITIONAL PRACTITIONER O OTHER X (SPECIFY)	PRIVATE MED. SECTOR PVT. HOSPITAL CLINIC/NURSING/ HOME K PHARMACY L OTHER PRIVATE MED M (SPECIFY) OTHER SOURCE SHOP N TRADITIONAL PRACTITIONER O OTHER X (SPECIFY)

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
534	CHECK 533:	TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED (SKIP TO 536)	TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED (SKIP TO 536)	TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED (SKIP TO 536)
535	Where did you first seek advice or treatment? USE LETTER CODE FROM 533.	FIRST PLACE	FIRST PLACE	FIRST PLACE
536	At any time during the illness, did (NAME) take any drugs for the illness?	YES	YES	YES
537	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS CHLOROQUINE A PRIMAQUINE B QUININE C OTHER D (SPECIFY)	ANTIMALARIAL DRUGS CHLOROQUINE A PRIMAQUINE B QUININE C OTHER D (SPECIFY)	ANTIMALARIAL DRUGS CHLOROQUINE A PRIMAQUINE B QUININE C OTHER D (SPECIFY)
		ANTIBIOTIC DRUGS COTRIMOXAZOLE E AMOXYCILLIN F CIPROFLOXACIN G PROCAINE PENICILLIN INJECTION H	ANTIBIOTIC DRUGS COTRIMOXAZOLE E AMOXYCILLIN . F CIPROFLOXACIN G PROCAINE PENICILLIN INJECTION . H	ANTIBIOTIC DRUGS COTRIMOXAZOLE . E AMOXYCILLIN . F CIPROFLOXACIN G PROCAINE PENICILLIN INJECTION . H
		OTHER DRUGS PARACETAMOL . I IBUPROFEN J COUGH SYRUP K OTHER X (SPECIFY) DON'T KNOW Z	OTHER DRUGS PARACETAMOL . I IBUPROFEN J COUGH SYRUP K OTHER X (SPECIFY) DON'T KNOW Z	OTHER DRUGS PARACETAMOL I IBUPROFEN J COUGH SYRUP K OTHER X (SPECIFY) DON'T KNOW Z
538		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 539.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 539.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 539.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
539	CHECK 220 AND 223, ALL ROWS: NUMBER OF CHILDREN BORN IN 2062 OR LATER LIVING WITH	THE RESPONDENT	
			→ 542
	RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 540		
	(NAME)		
540	The last time (NAME FROM 539) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE 01 PUT/RINSED INTO TOILET OR LATRINE 02 PUT/RINSED INTO DRAIN OR DITCH 03 THROWN INTO GARBAGE 04 BURIED 05 LEFT IN THE OPEN 06 OTHER96 	
541	CHECK 522(a) ALL COLUMNS:		
	NO CHILD ANY CHIL RECEIVED FLUID RECEIVED FROM ORS PACKET FROM OR		→ 543
542	Have you ever heard of a special product called Jeevan Jal/Navajeevan/Orestal you can get for the treatment of diarrhea?	YES 1 NO 2	
543	CHECK 220 AND 223, ALL ROWS: NUMBER OF CHILDREN BORN IN 2065 OR LATER LIVING WITH ONE OR MORE		→ 601
	RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 544 (NAME)		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
544	Now I would like to ask you about liquids or foods that (NAME FROM am interested in whether your child had the item I mention even if it		
	Did (NAME FROM 543) (drink/eat):	YES NO DK	
	a) Plain water?	<b>a)</b> 128	
	b) Juice or juice drinks?	<b>b)</b> 1 2 8	
	c) Soup?	<b>c)</b> 1 2 8	
	d) Milk such as tinned, powdered, or fresh animal milk?	<b>d)</b> 1 2 8	
	IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK MILK	
	e) Infant formula like Lactogen?	<b>e)</b> 1 2 8	
	IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK FORMULA	
	f) Any other liquids?	<b>f)</b> 1 2 8	
	g) Yogurt?	<b>g)</b> 1 2 8	
	IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ATE YOGURT	
	h) Any fortified baby food like Cerelac, Nestum, Champion etc?	<b>h)</b> 1 2 8	
	i) Roti, rice, maize, millet, noodles, porridge, or other foods made		
	j) Pumpkin, carrots, squash or sweet potatoes that are yellow or		
	k) White potatoes, white yams, colocasia, or any other foods made	le from roots? k) 1 2 8	
	<li>I) Any dark green, leafy vegetables like spinach, amaranth leaves mustard leaves?</li>	s, <b>I)</b> 1 2 8	
	m) Ripe mangoes, papayas or apricot?	<b>m)</b> 1 2 8	
	n) Any other fruits or vegetables?	<b>n)</b> 1 2 8	
	o) Liver, kidney, heart or other organ meats?	<b>o)</b> 1 2 8	
	p) Any meat, such as pork, buff, lamb, goat, chicken, or duck?	<b>p)</b> 1 2 8	
	q) Eggs?	<b>q)</b> 1 2 8	
	r) Fresh or dried fish or shellfish?	r) 1 2 8	
		s) 1 2 8	
	t) Cheese or other food made from milk?	t) 1 2 8	
	u) Any other solid, semi-solid, or soft food (jaulo, lito, sarbottam p	tho etc.)? u) 1 2 8	
545	CHECK 544 (CATEGORIES "g" THROUGH "u"): ALL "NO" CHECK 544 (CATEGORIES "g" THROUGH "u"): AT LEAST ONE "YES" OR ALL DKs	]	► 547
546	Did (NAME) eat any solid, semi-solid, or soft foods yesterday during the day or at night?	YES 1 (GO BACK TO 544 TO RECORD	
	IF 'YES' PROBE: What kind of solid, semi-solid or soft foods did (NAME) eat?	NO 2—	→ 601
547	How many times did (NAME FROM 543) eat solid, semisolid, or soft foods yesterday during the day or at night?	NUMBER OF TIMES	
	IF 7 OR MORE TIMES, RECORD '7'.	DON'T KNOW	

#### SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED 1 YES, LIVING WITH A MAN 2 NO, NOT IN UNION 3	<b>→</b> 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED       1         YES, LIVED WITH A MAN       2         NO       3	→ 612
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED         1           DIVORCED         2           SEPARATED         3	609
604	Is your (husband/partner) living with you now or is he staying elsewhere?	LIVING WITH HER 1 STAYING ELSEWHERE 2	→ 605
604A	For how long have you and your husband not been living together? IF LESS THAN 1 YEAR, RECORD MONTHS, OTHERWISE RECORD IN COMPLETED YEARS.	MONTHS 1 YEARS 2	
605	RECORD THE HUSBAND'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME	
606	Does your (husband/partner) have other wives or does he live with other women as if married?	YES	<b>↓</b> 609
607	Including yourself, in total, how many wives or live-in partners does he have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS DON'T KNOW	
608	Are you the first, second, wife?	RANK	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE         1           MORE THAN ONCE         2	
610	CHECK 609: MARRIED/ LIVED WITH A MAN ONLY ONCE In what month and year did you start living with your (husband/partner)? MARRIED/ LIVED WITH A MAN MORE THAN ONCE your first (husband/partner). In what month and year did you start living with him?	MONTH	→ 612

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
611	How old were you when you first started living with him?	AGE	
612	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUIN	IG, MAKE EVERY EFFORT TO ENSURE PRIVAC	CY.
613	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues.	NEVER HAD SEXUAL INTERCOURSE	→ 628
	How old were you when you had sexual intercourse for the very first time?	AGE IN YEARS FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER95	
614	Now I would like to ask you some questions about your recent sexua completely confidential and will not be told to anyone. If we should contend we will go to the next question.		
615	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO       1         WEEKS AGO       2         MONTHS AGO       3         YEARS AGO       4	→ 627

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
616	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3
617	The last time you had sexual intercourse (with this second/third person), was a condom used? <b>(2)</b>	YES 1 NO 2 (SKIP TO 619)◀	YES 1 NO 2 (SKIP TO 619)◀	YES 1 NO 2 (SKIP TO 619)◀
618	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2
619	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND 1 LIVE-IN PARTNER 2 BOYFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE 4 PROSTITUTE 5 OTHER 6 (SPECIFY) (SKIP TO 622)	HUSBAND 1 LIVE-IN PARTNER 2 BOYFRIEND NOT LIVING WITH RESPONDENT 3— CASUAL ACQUAINTANCE 4— PROSTITUTE 5— OTHER6— (SPECIFY) (SKIP TO 622)	HUSBAND 1 LIVE-IN PARTNER 2 BOYFRIEND NOT LIVING WITH RESPONDENT 3- CASUAL ACQUAINTANCE 4 - PROSTITUTE 5- OTHER 6- (SPECIFY) (SKIP TO 622)
620	CHECK 609:	MARRIED MARRIED ONLY MORE ONCE THAN ONCE (SKIP TO 622)	MARRIED MARRIED ONLY MORE ONCE THAN ONCE (SKIP TO 622)	MARRIED MARRIED ONLY MORE ONCE THAN ONCE (SKIP TO 622)
621	CHECK 613:	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)
622	How long ago did you first have sexual intercourse with this (second/third) person?	DAYSAGO1WEEKSAGOAGO2MONTHSAGOAGO3YEARSAGOAGO4	DAYSAGO1WEEKSAGOAGO2MONTHSAGOAGO3YEARSAGOAGO4	DAYSAGO1WEEKSAGOAGO2MONTHSAGOAGO3YEARSAGOAGO4
623	How many times during the last 12 months did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
624	How old is this person?	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98
625	Apart from (this person/these two people), have you had sexual intercourse with any other person in the last 12 months?	YES 1 (GO BACK TO 616 ← IN NEXT COLUMN) NO 2 (SKIP TO 627) ←	YES 1 (GO BACK TO 616 ← IN NEXT COLUMN) NO 2 (SKIP TO 627) ←	
626	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
627	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.	NUMBER OF PARTNERS         IN LIFETIME         DON'T KNOW         98	
628	PRESENCE OF OTHERS DURING THIS SECTION	YES         NO           CHILDREN <10         1         2           MALE ADULTS         1         2           FEMALE ADULTS         1         2	
629	Do you know of a place where a person can get condoms?	YES 1 NO 2	→ 701
630	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE(S))	PUBLIC SECTOR       GOVT. HOSPITAL/CLINIC       A         PHC CENTER       B         HEALTH POST       C         SUB-HEALTH POST       D         PHC OUTREACH       E         MOBILE CLINIC       F         FCHV       G         OTHER GOVT.       H         (SPECIFY)       H         NON-GOVT. (NGO) SECTOR       F         FPAN       I         MARIE STOPES       J         ADRA       K         NEPAL RED CROSS       L         UMN       M         OTHER NGO.	
631	If you wanted to, could you yourself get a condom?	YES 1 NO 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 304: NEITHER HE OR SHE STERILIZED STERILIZED		→ 712
702	CHECK 234: PREGNANT OR UNSURE		→ 704
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD       1         NO MORE       2         UNDECIDED/DON'T KNOW       8	→ 705 → 711
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD1NO MORE/NONE2SAYS SHE CAN'T GET PREGNANT3UNDECIDED/DON'T KNOW8	→ 707 → 712 → 710
705	CHECK 234: NOT PREGNANT OR UNSURE How long would you like to wait from now before the birth of (a/another) child? PREGNANT After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS       1         YEARS       2         SOON/NOW       993         SAYS SHE CAN'T GET PREGNANT       994         AFTER MARRIAGE/GAUNA       995         OTHER       996         (SPECIFY)       998	$ \rightarrow 710 \\ \rightarrow 712 \\ \rightarrow 710 \\ \rightarrow 710 $
706	CHECK 234: NOT PREGNANT OR UNSURE		→ 711
707	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY CURRENTLY USING		→ 712
708		DO-23 MONTHS DR 00-01 YEAR	→ 711

NO.	QUESTIONS AN	ID FILTERS	CODING CATEGORIES	SKIP
709	CHECK 703 AND 704:		NOT MARRIED A	
	WANTS TO HAVE A/ANOTHER CHILD	WANTS NO MORE/ NONE	FERTILITY-RELATED REASONS         NOT HAVING SEX       B         INFREQUENT SEX       C         HUSBAND AWAY       D         MENOPAUSAL/HYSTERECTOMY       E         CAN'T GET PREGNANT       F         NOT MENSTRUATED SINCE       LAST BIRTH	
	Can you tell me why you are not using a method to prevent pregnancy?	Can you tell me why you are not using a method to prevent pregnancy?	BREASTFEEDING H UP TO GOD/FATALISTIC I	
	Any other reason?	Any other reason?	OPPOSITION TO USE RESPONDENT OPPOSED J HUSBAND/PARTNER OPPOSED K OTHERS OPPOSED L RELIGIOUS PROHIBITION M	
	RECORD ALL REASC	ONS MENTIONED.	LACK OF KNOWLEDGE KNOWS NO METHOD N KNOWS NO SOURCE O	
			METHOD-RELATED REASONS         SIDE EFFECTS/HEALTH         CONCERNS         LACK OF ACCESS/TOO FAR         Q         COSTS TOO MUCH         PREFERRED METHOD         NOT AVAILABLE         NO METHOD AVAILABLE         INCONVENIENT TO USE         U         INTERFERES WITH BODY'S         NORMAL PROCESSES         V         OTHER         (SPECIFY)         DON'T KNOW	
710	CHECK 303: USING A CONTRA	CEPTIVE METHOD?		
	ASKED NOT C			→ 712
711	Do you think you will use a contr pregnancy at any time in the futu	aceptive method to delay or avoid rre?	YES	
712	CHECK 221: HAS LIVING CHILDREN	NO LIVING CHILDREN	NONE	→ 714 → 714
	PROBE FOR A NUMERIC RESI	PONSE.	(SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	NUMBER	
		OTHER 96 (SPECIFY)	
714	In the last few months have you:	YES NO	
	Heard about family planning on the radio? Seen anything about family planning on the television?	RADIO	
	Read about family planning in a newspaper or magazine?	NEWSPAPER OR MAGAZINE 1 2	
	Read about family planning in brochure or flipchart? Seen message on family planning in a poster,	BROCHURE OR FLIPCHART 1 2	
	hoarding board or billboard?	POSTER, HOARDING/BILLBOARD 1 2	
	Seen street dramas on family planning?	STREET DRAMA 1 2	
715	CHECK 601:		
	YES, YES, NO,		
	CURRENTLY I LIVING I NOT IN MARRIED WITH A MAN UNION		→ 801
716	CHECK 303: USING A CONTRACEPTIVE METHOD?		
	USING USING USING USING OR NOT ASKED		→ 719
747			
717	Would you say that using contraception is mainly your decision, mainly your (husband's/partner's) decision, or did you both decide	MAINLY RESPONDENT 1 MAINLY HUSBAND/PARTNER 2	
	together?	JOINT DECISION	
		(SPECIFY)	
718	CHECK 304:		
	STERILIZED		→ 801
719	Does your (husband/partner) want the same number of children that	SAME NUMBER 1	
	you want, or does he want more or fewer than you want?	MORE CHILDREN         2           FEWER CHILDREN         3           DON'T KNOW         8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602:		
	CURRENTLY FORMERLY MARRIED/ LIVING WITH LIVED WITH A MAN A MAN	NEVER MARRIED AND NEVER LIVED WITH A MAN	→ 803 → 806
802	How old was your (husband/partner) on his last birthday?	AGE IN COMPLETED YEARS	
803	Did your (last) (husband/partner) ever attend school?	YES 1 NO 2	→ 805
804	What was the highest grade he completed?		
	IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE            DON'T KNOW	
805	CHECK 801:		
	What is your (husband's/ What was your (last) (husband's/		
	partner's) occupation?partner's) occupation?That is, what kind of work doesThat is, what kind of work did hehe mainly do?mainly do?		
806	Aside from your own housework, have you done any work in the last seven days?	YES 1 NO 2	→ 810
807	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES 1 NO 2	→ 810
808	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave, or any other such reason?	YES 1 NO 2	→ 810
809	Have you done any work in the last 12 months?	YES 1 NO 2	<b>→</b> 813A
810	What is your occupation, that is, what kind of work do you mainly do?		
811	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER       1         FOR SOMEONE ELSE       2         SELF-EMPLOYED       3	
812	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR1SEASONALLY/PART OF THE YEAR2ONCE IN A WHILE3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY       1         CASH AND KIND       2         IN KIND ONLY       3         NOT PAID       4	814
813A	Why are you not involved in any work aside from your own house work?	NO NEED TO WORK1WORKLOAD AT HOME2SMALL CHILDREN TO LOOK AFTER3FAMILY DOES NOT ALLOW4LOOKING FOR WORK5LACK EDUCATION/TRAINING7NO OPPORTUNITY8OTHER6	
		(SPECIFY)	
814	CHECK 601: CURRENTLY MARRIED NOT IN UNION		→ 822
815	CHECK 813:		
	CODE 1 OR 2 CIRCLED		→ 818
816	Who usually decides how the money you earn will be used: you, your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT       1         HUSBAND/PARTNER       2         RESPONDENT AND       1         HUSBAND/PARTNER JOINTLY       3         OTHER       6         (SPECIFY)	
817	Would you say that the money that you earn is more than what your (husband/partner) earns, less than what he earns, or about the same?	MORE THAN HIM1LESS THAN HIM2ABOUT THE SAME3HUSBAND/PARTNER DOESN'T8BRING IN ANY MONEY4DON'T KNOW8	→ 819
818	Who usually decides how your (husband's/partner's) earnings will be used: you, your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT       1         HUSBAND/PARTNER       2         RESPONDENT AND       4         HUSBAND/PARTNER JOINTLY       3         HUSBAND/PARTNER HAS       4         NO EARNINGS       4         OTHER       6         (SPECIFY)	
819	Who usually makes decisions about health care for yourself: you, your (husband/partner), you and your (husband/partner) jointly, or someone else?	RESPONDENT1HUSBAND/PARTNER2RESPONDENT AND1HUSBAND/PARTNER JOINTLY3SOMEONE ELSE4OTHER6	
820	Who usually makes decisions about making major household purchases?	RESPONDENT    1      HUSBAND/PARTNER    2      RESPONDENT AND    1      HUSBAND/PARTNER JOINTLY    3      SOMEONE ELSE    4      OTHER    6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
821	Who usually makes decisions about visits to your family or relatives?	RESPONDENT1HUSBAND/PARTNER2SOMEONE ELSE4HUSBAND/PARTNER JOINTLY3SOMEONE ELSE4OTHER6	
822	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY1JOINTLY ONLY2BOTH ALONE AND JOINTLY3DOES NOT OWN4	
823	Do you own any land either alone or jointly with someone else?	ALONE ONLY1JOINTLY ONLY2BOTH ALONE AND JOINTLY3DOES NOT OWN4	
823A	Do you belong to any group? Please specify.	AMA SAMUHA A BACHAT SAMUHA B MAHILA SAMUHA C	
		OTHER X (SPECIFY) DOES NOT BELONG TO ANY GROUP Z	
824	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ PRES./ NOT LISTEN. NOT PRES. LISTEN.	
		CHILDREN < 10	
824A	In your opinion, should a husband hit or beat his wife for any reason at all?	YES	→ 901
825	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES NO DK	
	If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	GOES OUT       1       2       8         NEGL. CHILDREN       1       2       8         ARGUES       1       2       8         REFUSES SEX       1       2       8         BURNS FOOD       1       2       8	

#### SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES 1 NO 2	→ 921
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES	
903	Can people get the AIDS virus from mosquito bites?	YES	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES	
906	Can people get the AIDS virus by touching someone who has AIDS?	YES	
907	Is it possible for a healthy-looking person to have the AIDS virus?	YES	
908	Can the virus that causes AIDS be transmitted from a mother to her baby:	YES NO DK	
	During pregnancy? During delivery? By breastfeeding?	DURING PREG.         1         2         8           DURING DELIVERY         1         2         8           BREASTFEEDING         1         2         8	
909	CHECK 908: AT LEAST OT ONE 'YES'	HER	→ 911
910	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES	
911	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES 1 NO 2	→ 915
912	How many months ago was your most recent HIV test?	MONTHS AGO 95	
913	I don't want to know the results, but did you get the results of the test?	YES 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
914	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	GOVT. SECTOR         GOVERNMENT HOSPITAL       11         VCT CENTER       12         OTHER GOVT.       16         (SPECIFY)         NON-GOVT. SECTOR         FPAN       21         AMDA       22         INF       23         NEPAL RED CROSS       24         OTHER GOVT.       26         (SPECIFY)         PRIVATE MEDICAL SECTOR         PRIVATE HOSPITAL/CLINIC/         NURSING HOME       31	→ 917
		OTHER PRIVATE MEDICAL 36 (SPECIFY) OTHER 96 (SPECIFY)	
915	Do you know of a place where people can go to get tested for the AIDS virus?	YES 1 NO 2	→ 917
916	Where is that?         Any other place?         PROBE TO IDENTIFY EACH TYPE OF SOURCE.         IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE         SECTOR, WRITE THE NAME OF THE PLACE.    (NAME OF PLACE(S))	GOVT. SECTOR       A         GOVERNMENT HOSPITAL       A         VCT CENTER       B         OTHER GOVT.       C         (SPECIFY)       C         NON-GOVT. SECTOR       D         FPAN       D         AMDA       E         INF       F         NEPAL RED CROSS       G         OTHER GOVT.      H         OTHER GOVT.      H         OTHER MEDICAL SECTOR       PRIVATE MEDICAL SECTOR         PRIVATE MEDICAL SECTOR       I         OTHER PRIVATE       I         OTHER PRIVATE       J         (SPECIFY)       OTHER         OTHER	
917	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES 1 NO 2 DON'T KNOW 8	
918	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET       1         NO       2         DK/NOT SURE/DEPENDS       8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
919	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES	
920	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED1SHOULD NOT BE ALLOWED2DK/NOT SURE/DEPENDS8	
921	CHECK 901: HEARD ABOUT AIDS Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact?	YES 1 NO 2	
922	CHECK 613: HAS HAD SEXUAL INTERCOURSE		→ 930
923	CHECK 921: HEARD ABOUT OTHER SEXUALLY TRANSMITTED I		→ 925
924	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES	
925	Sometimes women experience a bad-smelling abnormal genital discharge. During the last 12 months, have you had a bad-smelling abnormal genital discharge?	YES	
926	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES	
927	CHECK 924, 925, AND 926: HAS HAD AN INFECTION (ANY 'YES')		→ 930
928	The last time you had (PROBLEM FROM 924/925/926), did you seek any kind of advice or treatment?	YES 1 NO 2	→ 930

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
929	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.	GOVT. SECTORGOVERNMENT HOSPITALA PRIMARY HEALTH CAREB HEALTH POSTC SUB-HEALTH POSTPHC OUTREACHFAMILY PLANNING CLINICFIELDWORKER	
	(NAME OF PLACE(S))	OTHER GOVT.         [SPECIFY]           NON-GOVT. SECTOR         J           FPAN         J           AMDA         K           ADRA         L           INF         M           NEPAL RED CROSS         N           UMN         O           OTHER NON-GOVT.         P           (SPECIFY)	
		PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ NURSING HOME Q OTHER PRIVATE MEDICALR (SPECIFY) OTHER SOURCE OTHERX (SPECIFY)	
930	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES	
931	Is a wife justified in refusing to have sex with her husband when she knows he has sex with other women?	YES	
932	CHECK 601: CURRENTLY MARRIED NOT IN UNION		→ 1001
933	Can you say no to your (husband/partner) if you do not want to have sexual intercourse?	YES	
934	Could you ask your (husband/partner) to use a condom if you wanted him to?	YES	

### SECTION 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS CODING CATEGORIES		SKIP
1001	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months?		
	IF YES: How many injections have you had?		
	IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'.	NONE 00	─ <b>→</b> 1003A
	IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.		
1002	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker?		
	IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NONE 00	→ 1003A
1003	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES	
1003A	CHECK 210: ONE OR MORE PREGNANCIES		→ 1004
1003B	Have you ever experienced signs of uterine prolapse (Patheghar Khasne/ Ang Khasne)?	YES 1 NO 2	→ 1004
1003C	Did you seek treatment for this condition?	YES, MEDICAL TREATMENT         1           YES, TRADITIONAL METHODS         2           NO         3	
1004	Do you currently smoke cigarettes?	YES 1 NO 2	→ 1006
1005	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES	
1006	Do you currently smoke or use any (other) type of tobacco?	YES 1 NO 2	→ 1008
1007	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE       A         BIDI       B         CHEWING TOBACCO       C         SNUFF       D         OTHER       X	
		(SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1008	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG NOT A BIG PROB- PROB- LEM LEM	
	Getting permission to go to the doctor?	PERMISSION TO GO 1 2	
	Getting money needed for advice or treatment?	GETTING MONEY 1 2	
	The distance to the health facility?	DISTANCE 1 2	
	Not wanting to go alone?	GO ALONE 1 2	
1008A	In the last few months have you heard or seen the following programs on the radio and/or television:	YES NO	
	Jana Swastha Radio Karyakram?	JANA SWASTHA 1 2	
	Janasankhya Chetana ka Sworeharu Radio Karyakram?	JANASANKHYA 1 2	
	Hamro Swastha Radio Karyakram?	HAMRO SWASTHA 1 2	
	Ama radio Karyakram?	AMA RADIO 1 2	
	Hamro Swastha TV Karyakram?	HAMRO SWASTF 1 2	
	Jeevan Chakra TV Karyakram?	JEEVAN CHAKRA T 1 2	
	Thorai bhaye pugi sari TV Karyakram?	THORAI BHAYA 1 2	
	Ama TV Karyakram?	AMA TV 1 2	
	Sathi Sanga Manka Kura Radio Karyakram?	SATHI SANGA MANKA . 1 2	
	Jeevan Jyoti Radio Karyakram?	JEEVAN JYOTI 1 2	
1008B	Which source of media do you prefer the most to receive health-related messages?	NEPAL RADIO       01         FM       02         TELEVISION       03         NEWSPAPER OR MAGAZINE       04         BROCHURE OR LEAFLET       05         FLIPCHART       06         POSTER       07         HOARDING/BILLBOARD       08	
		OTHER9696	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1009	CHECK 327 VISITED HEALTH FACILITY IN 12 MONTHS		1009F
1009A	Which health faciltiies did you visit last during the past 12 months for care for yourself or your children? PROBE TO IDENTIFY TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER	PUBLIC SECTORGOVT. HOSPITAL/CLINICPHC CENTER12HEALTH POSTSUB-HEALTH POSTPHC OUTREACH15MOBILE CLINICOTHER GOVT.	
	OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.	(SPECIFY) NON-GOVT. (NGO) SECTOR FPAN	
	(NAME OF PLACE(S))	ADRA       23         NEPAL RED CROSS       24         UMN       25         OTHER NGO.       26         (SPECIFY)         PRIVATE MEDICAL SECTOR         PRIVATE HOSPITAL/CLINIC/         NURSING HOME         OTHER PRIVATE         MEDICAL         SPECIFY)	
		OTHER96	
1009B	CHECK1009A CODES 11-17 CIRCLED OTHER CODES/ NOT CIRCLED		→ 1009F
1009C	Did you pay the registration fee during your last visit to the health facility?	YES 1 NO 2 DON'T KNOW 8	
1009D	Were you prescribed any medicines/drug by the health care provider the last time you visited the health facility?	YES	1009F
1009E	Did you get any medicine/drug free of cost from the health facility?	YES, FULLY       1         YES, PARTIALLY       2         NOT AT ALL       3	
1009F	Does a woman get free health services from a government health facility for the following services: Post abortion service?	YES NO DK POST ABORTION 1 2 8	
1009G	Delivery service? Does a woman get a cash incentive if she delivers her baby at a government health facility?	DELIVERY         1         2         8           YES         1	

### DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
1101	CHECK HOUSEHOLD QUESTIONNAIRE, COL. 9A A	ND COVER PA	GE OF WOMAN QUESTIONNAIRE.	
	WOMAN SELECTED WOMAN NO	OT SELECTED		→ 1134
1102	CHECK FOR PRESENCE OF OTHERS:			
	DO NOT CONTINUE UNTIL EFFECTIVE PRIVACY IS	S ENSURED.		
	PRIVACY OBTAINED 1 NOT I ↓	PRIVACY POSSIBLE	2	→ 1133
	READ TO THE RESPONDENT			
	Now I would like to ask you questions about some other important aspects of a woman's life. I know that some of these questions are very personal. However, your answers are crucial for helping to understand the condition of women in Nepal. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else will know that you were asked these questions.			
1103	CHECK 601 AND 602:			
	CURRENTLY FORMERLY MARRIED/ LIVED WITH A MAN WITH A MAN (READ IN PAST TEN:		NEVER MARRIED/ NEVER LIVED	→ 1115
1104	First, I am going to ask you about some situations whi	ch		
	happen to some women. Please tell me if these apply to your relationship with your (last) husband/partner?			
	<ul> <li>a) He (is/was) jealous or angry if you (talk/talked) to ot</li> <li>b) He frequently (accuses/accused) you of being unfait</li> <li>c) He (does/did) not permit you to meet your female fr</li> <li>d) He (tries/tried) to limit your contact with your family?</li> <li>e) He (insists/insisted) on knowing where you (are/wer at all times?</li> <li>f) He (does/did) not trust you with any money?</li> </ul>	thful? iends?	YES         NO         DK           JEALOUS         1         2         8           ACCUSES         1         2         8           NOT MEET FRIENDS         1         2         8           NO FAMILY         1         2         8           WHERE YOU ARE         1         2         8           MONEY         1         2         8	
1105	Now if you will permit me, I need to ask some more quabout your relationship with your (last) husband/partne			
	A (Does/did) your (last) husband/partner ever:		B How often did this happen during the last 12 months: often, only sometimes, or not at all?	
			SOME- NOT OFTEN TIMES AT ALL	
	<ul> <li>a) say or do something to humiliate you in front of others?</li> </ul>	YES 1 NO 2	→ 1 2 3	
	b) threaten to hurt or harm you or someone close to you?	YES 1- NO 2	→ 1 2 3	
	c) insult you or make you feel bad about yourself?	YES 1- NO 2	→ 1 2 3	

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES		SK	IP		
1106	A (Does/did) your (last) husband/partner ever do any of the following things to you:			B How often did this happen during the last 12 months: often, only sometimes, or not at all?				
				OFTEN	SOME- TIMES	NOT AT ALL		
	<ul> <li>a) push you, shake you, or throw something at you?</li> </ul>	YES 1- NO 2 ↓	→	1	2	3		
	b) slap you?	YES 1− NO 2	→	1	2	3		
	c) twist your arm or pull your hair?	YES 1− NO 2	<b>→</b>	1	2	3		
	<ul> <li>d) punch you with his fist or with something that could hurt you?</li> </ul>	YES 1- NO 2	→	1	2	3		
	e) kick you, drag you or beat you up?	YES 1- NO 2	•	1	2	3		
	f) try to choke you or burn you on purpose?	YES 1- NO 2	•	1	2	3		
	g) threaten or attack you with a knife, gun, or any other weapon?	YES 1- NO 2	→	1	2	3		
	<ul> <li>h) physically force you to have sexual intercourse with him even when you did not want to?</li> </ul>	YES 1− NO 2 ↓	•	1	2	3		
	<ul> <li>force you to perform any sexual acts you did not want to?</li> </ul>	YES 1− NO 2	•	1	2	3		
1107	CHECK 1106A (a-i):							
	AT LEAST ONE 'YES'	A SINGLE 'YES'						1110
1108	How long after you first (got married to/started living w (last) husband/partner did (this/any of these things) first happen?		BEF	MBER OF YEAF FORE MARRIAG IVING TOGETH	GE/BEFORE			
	IF LESS THAN ONE YEAR, RECORD '00'.					00		
1109	Did the following ever happen as a result of what your (last) husband/partner did to you:							
	a) You had cuts, bruises or aches?		YES NO					
	b) You had eye injuries, sprains, dislocations, or burns?		YES NO					
	c) You had deep wounds, broken bones, broken teeth, or any other serious injury?		YES NO			-		
1110	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband/partner at times when he was not already beating or physically hurting you?		YES NO			_	-	1112
1111	In the last 12 months, how often have you done this to your husband/partner: often, only sometimes, or not at all?		SO			2		
1112	(Does/Did) your husband/partner drink alcohol?		YES NO			_	<b>→</b>	1114
1113	How often (does/did) he get drunk: often, only sometin or never?	nes,	SO	METIMES .		2		
1114	Are (were) you afraid of your (last) husband/partner: most of the time, sometimes, or never?		SO	ST OF THE TIN METIMES AFRA VER AFRAID	AID	2		

NO.	QUESTIONS ANI	D FILTERS	CODING CATEGORIES	SKIP
1115	CHECK 601 AND 602:			
	EVER MARRIED/LIVED WITH A MAN	NEVER MARRIED/ NEVER LIVED WITH A MAN		
	From the time you were 15 years old has anyone other than your (current/last) husband/partner hit, slapped, kicked, or done anything else to hurt you physically?	From the time you were 15 years old has anyone ever hit, slapped, kicked, or done anything else to hurt you physically?	YES	1118
1116	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.		MOTHER/STEP-MOTHERAFATHER/STEP-FATHERBSISTER/BROTHERCDAUGHTER/SONDOTHER RELATIVEEFORMER HUSBAND/LIVE-IN PARTNERLIVE-IN PARTNERFCURRENT BOYFRIENDGFORMER BOYFRIENDHMOTHER-IN-LAWJOTHER IN-LAWJOTHER IN-LAWKTEACHERLEMPLOYER/SOMEONE AT WORKMPOLICE/SOLDIERN	
			OTHER X	
1117	In the last 12 months, how often slapped, kicked, or physically hu often, only sometimes, or not at	Irt by this/these person(s):	OFTEN         1           SOMETIMES         2           NOT AT ALL         3	
1118	CHECK 201, 208, AND 234:			
	EVER BEEN PREGNANT (YES ON 201 OR 208 OR 234)	NEVER BEEN PREGNANT		→ 1121
1119	Has any one ever hit, slapped, k hurt you physically while you we		YES 1 NO 2	→ 1121
1120	Who has done any of these thin you were pregnant?	gs to physically hurt you while	CURRENT HUSBAND/ LIVE-IN PARTNER A MOTHER/STEP-MOTHER B FATHER/STEP-FATHER C	
	Anyone else?		SISTER/BROTHER D DAUGHTER/SON E OTHER RELATIVE F FORMER HUSBAND/ LIVE-IN PARTNER G CURRENT BOYFRIEND H FORMER BOYFRIEND I MOTHER-IN-LAW J FATHER-IN-LAW K OTHER IN-LAW K OTHER IN-LAW L TEACHER M EMPLOYER/SOMEONE AT WORK N POLICE/SOLDIER O OTHER X (SPECIFY)	
1120A		e or stillbirth as a result	SISTER/BROTHERDDAUGHTER/SONEOTHER RELATIVEFFORMER HUSBAND/LIVE-IN PARTNERLIVE-IN PARTNERGCURRENT BOYFRIENDHFORMER BOYFRIENDIMOTHER-IN-LAWJFATHER-IN-LAWKOTHER IN-LAWLTEACHERMEMPLOYER/SOMEONE AT WORKNPOLICE/SOLDIEROOTHERX	

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
1121	CHECK 1106A (h) and (i)			
	1106A( h)= YES <u>OR</u> 1106A (i)= YES	1106A (h)= NO <u>AND</u> 1106A (i) = <u>OR</u> 1106A NOT ASKED	NO	
	Now I want to ask you about things that may have happened to you that were <u>not</u> done by your (current/last) husband/partner. At any time in your life, as a <u>child or as an adult</u> , has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts against your will?	At any time in your life, as a <u>child or as an adult</u> , has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts against your will?	YES	2
1122	How old were you the first first have sexual intercourse or per		AGE IN COMPLETED YEARS	]
1123	Who was the person who was	forcing you at that time?	CURRENT HUSBAND/       01         FORMER HUSBAND/       02         LIVE-IN PARTNER       02         CURRENT/FORMER BOYFRIEND       03         FATHER       04         STEP-FATHER       04         OTHER RELATIVE       06         IN-LAW       07         OWN FRIEND/ACQUAINTANCE       08         FAMILY FRIEND       09         TEACHER       10         PRIEST/RELIGIOUS LEADER       12         PRIEST/RELIGIOUS LEADER       14         OTHER       96         (SPECIFY)       96	
1124	CHECK 1106B (h) and (i)			
	1106B (h)= 1 OR 2 <u>OR</u> 1106B (i) = 1 OR 2 In the last 12 months, has anyone other than your (current/last) husband/ partner forced you to have sexual intercourse against your will?	1106B (h) = $3 \frac{\text{AND}}{\text{OR}}$ 1106B (i) = $3 \frac{\text{OR}}{\text{OR}}$ 1106B AND NOT ASKED In the last 12 months has anyone forced you to have sexual intercourse against your will?	YES	
1125	CHECK 1106A (a-i), 1115, 117	9, 1121, AND 1124:		
	AT LEAST ONE 'YES'	NOT A SINGLE 'YES'	]	→ 1129
1126	Thinking about what you yours the different things we have be ever tried to seek help to stop doing this to you again?	en talking about, have you	YES	
1127	From whom have you sought h Anyone else? RECORD ALL MENTIONED.	nelp?	OWN FAMILY       A         HUSBAND/LIVE-IN PARTNER'S       B         FAMILY       B         CURRENT/LAST/LATE       B         HUSBAND/LIVE-IN PARTNER       C         CURRENT/FORMER BOYFRIEND       D         FRIEND       E         NEIGHBOR       F         RELIGIOUS LEADER       G         DOCTOR/MEDICAL PERSONNEL       H         POLICE       J         SOCIAL SERVICE ORGANIZATION       K         OTHER      X	1129

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES		SKIP
1128	Have you ever told any one else about this?		YES NO	1 2	
1129	CHECK 613: EVER HAD SEX?				
		SEX			► 1131
1130	The first time you had sexual intercourse, would you sa		WANTED TO	1 2	
	had it because you wanted to, or because you were for it against your will?	ced to have	REFUSED TO ANSWER/	Z	
			NO RESPONSE	3	
1131	As far as you know, did your father ever beat your moth	ner?	YES	1 2	
			DON'T KNOW	8	
	( THE RESPONDENT FOR HER COOPERATION AND F ERS. FILL OUT THE QUESTIONS BELOW WITH REFE				
1132	DID YOU HAVE TO INTERRUPT THE		YES YES, MORE		
	INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE		ONCE         THAN ONCE	NO 3	
	ROOM, OR INTERFERED IN ANY OTHER WAY?	OTHER MA FEMALE A	ALE ADULT 1 2 DULT 1 2	3 3	
				-	
1133	INTERVIEWER'S COMMENTS / EXPLANATION FOR	NOT COMPLE	TING THE DOMESTIC VIOLENCE MODU	ILE	
r			·		
1134	RECORD THE TIME.		HOUR		
			MINUTES		

## INTERVIEWER'S OBSERVATIONS

### TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:		
COMMENTS ON SPECIFIC QUESTIONS:		
ANY OTHER COMMENTS:		
	SUPERVISOR'S OBSERVATIONS	
	DATE:	

INSTRUCTIONS: ONLY ONE CODE SHOULD APPEAR IN ANY BOX. COLUMN 1 REQUIRES A CODE IN EVERY MONTH.	1 2 12 CHAITRA 01 11 FALGUN 02
INFORMATION TO BE CODED FOR EACH COLUMN COLUMN 1: <u>BIRTHS, PREGNANCIES, CONTRACEPTIVE USE**</u> B BIRTHS P PREGNANCIES C MISCARRIAGE A ABORTION S STILLBIRTH	10       MAGH       03
<ul> <li>NO METHOD</li> <li>FEMALE STERILIZATION</li> <li>MALE STERILIZATION</li> <li>IUD</li> <li>INJECTABLES</li> <li>IMPLANTS</li> <li>PILL</li> <li>CONDOM</li> <li>FEMALE CONDOM</li> <li>DIAPHRAGM</li> <li>FOAM OR JELLY</li> <li>RHYTHM METHOD</li> <li>M WITHDRAWAL</li> <li>X OTHER MODERN METHOD</li> </ul>	01       BAISAKH       12         12       CHAITRA       13         11       FALGUN       14         10       MAGH       15         09       POUSH       16         2       08       MANGSIR       17         0       07       KARTIK       18       0         6       06       ASWIN       19       6         7       05       BHADRA       20       7         03       ASHAD       22       10       1         03       ASHAD       23       1       1         01       BAISAKH       24       1       1
Y OTHER TRADITIONAL METHOD COLUMN 2: <u>DISCONTINUATION OF CONTRACEPTIVE USE</u> 0 INFREQUENT SEX 1 BECAME PREGNANT WHILE USING 2 WANTED TO BECOME PREGNANT 3 HUSBAND/PARTNER DISAPPROVED 4 WANTED MORE EFFECTIVE METHOD 5 SIDE EFFECTS/HEALTH CONCERNS 6 LACK OF ACCESS/TOO FAR 7 COSTS TOO MUCH	12       CHAITRA       25
8 INCONVENIENT TO USE F UP TO GOD/FATALISTIC A DIFFICULT TO GET PREGNANT/MENOPAUSAL D MARITAL DISSOLUTION/SEPARATION H HUSBAND AWAY X OTHER	12       CHAITRA       37
	12       CHAITRA       49
	12       CHAITRA       61
	12       CHAITRA       73

# NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2011 MAN'S QUESTIONNAIRE

		IDENTIFICATION		
NAME AND CODE OF DISTRICT         NAME AND CODE OF VILLAGE/MUNICIPALITY         WARD NUMBER         CLUSTER NUMBER         HOUSEHOLD NUMBER         NAME AND LINE NUMBER OF MAN         NAME OF HOUSEHOLD HEAD				
		INTERVIEWER VISI	TS	<u>.</u>
	1	2	3	FINAL VISIT
DATE INTERVIEWER'S NAME		· · · · · · · · · · · · · · · · · · ·		DAY MONTH YEAR 2 0 6 INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
*RESULT CODES: 1 COMPLE 2 NOT AT H 3 POSTPOI	IOME 5 PAR	USED TLY COMPLETED APACITATED	7 OTHER	(SPECIFY)
LANGUAGE OF QUES LANGUAGE OF INTER NATIVE LANGUAGE C TRANSLATOR USED ( LANGUAGE CODES: N	YIEW	NGLISH	-	5
SUPERVISOR OFFICE KEYED BY				
NAME		EDITOR		
DATE				

#### SECTION 1. RESPONDENT'S BACKGROUND

# INTRODUCTION AND CONSENT

INFORMED CONSENT	
are conducting a survey about health all over Nepal. The information household was selected for the survey. The questions usually take a will not be shared with anyone other than members of our survey tea	about 20 minutes. All of the answers you give will be confidential and m. No part of this interview is being recorded in tape or video. You the questions since your views are important. If I ask you any question
In case you need more information about the survey, you may contachousehold.	ct the person listed on the card that has already been given to your
Do you have any questions? May I begin the interview now?	
SIGNATURE OF INTERVIEWER:	DATE:
RESPONDENT AGREES TO BE INTERVIEWE 1 RESPO	ONDENT DOES NOT AGREE TO BE INTERVIEWED 2→ END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR	
102	In what month and year were you born?	MONTH 98 DON'T KNOW MONTH 98 YEAR DON'T KNOW YEAR 99998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS	
104	Have you ever attended school?	YES 1 NO 2	→ 107
105	What is the highest grade you completed? IF COMPLETED LESS THAN ONE GRADE, RECORD '00'.	GRADE	
106	CHECK 105: GRADE 5 OR LOWER OR HIGHER		→ 110

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL1ABLE TO READ ONLY PARTS OF2SENTENCE2ABLE TO READ WHOLE SENTENCE3NO CARD WITH REQUIRED4LANGUAGE4(SPECIFY LANGUAGE)5	
108	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES 1 NO 2	
109	CHECK 107: CODE '2', '3' OR '4' CIRCLED CIRCLED		→ 111
110	Do you read a newspaper or magazine, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK1LESS THAN ONCE A WEEK2NOT AT ALL3	
111	Do you listen to the radio, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK1LESS THAN ONCE A WEEK2NOT AT ALL3	
112	Do you watch television, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK1LESS THAN ONCE A WEEK2NOT AT ALL3	
113	What is your religion?	HINDU       1         BUDDHIST       2         MUSLIM       3         KIRAT       4         CHRISTIAN       5         OTHER       6         (SPECIFY)	
114	What is your caste/ethnicity? WRITE CASTE/ETHNICITY ON LINE PROVIDED.		
		(CASTE/ETHNICITY)	
115	In the last 12 months, how many times have you been away from your home community for one or more nights?	NUMBER OF TIMES 00	→ 201
116	In the last 12 months, have you been away from your home community for more than one month at a time?	YES 1 NO 2	

## SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name.	YES 1 NO 2	
	Have you ever fathered any children with any woman?	DON'T KNOW 8	206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES 1 NO 2	→ 204
203	How many sons live with you?	SONS AT HOME	
	And how many daughters live with you?	DAUGHTERS AT HOME	
	IF NONE, RECORD '00'.		
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES 1 NO 2	→ 206
205	How many sons are alive but do not live with you?	SONS ELSEWHERE	
	And how many daughters are alive but do not live with you?	DAUGHTERS ELSEWHERE	
	IF NONE, RECORD '00'.		
206	Have you ever fathered a son or a daughter who was born alive but later died?	YES 1	
	IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES         1           NO         2           DON'T KNOW         8	208
207	How many boys have died?	BOYS DEAD	
	And how many girls have died?	GIRLS DEAD	
	IF NONE, RECORD '00'.		
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL.	TOTAL CHILDREN	
	IF NONE, RECORD '00'.		
209	CHECK 208:		<b>N</b> 010
	HAS HAD HAS HAD HAS HAD MORE THAN ONLY		212
	ONE CHILD ↓ ONE CHILD HAS NOT ANY CHIL		→ 301
210	Did all of the children you have fathered have the same biological mother?	YES 1 NO 2	→ 212
211	In all, how many women have you fathered children with?		
212	How old were you when your (first) child was born?	AGE IN YEARS	
213	CHECK 203 AND 205:		
	AT LEAST ONE NO LIV LIVING CHILD CHILD		→ 301
214	How old is your (youngest) child?	AGE IN YEARS	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
215	CHECK 214: (YOUNGEST) CHILD OTHER IS AGE 0-2 YEARS		→ 301
216	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD (NAME OF (YOUNGEST) CHILD)		
217	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES	219
218	Were you ever present during any of those antenatal check-ups?	PRESENT         1           NOT PRESENT         2	
220	When a child has diarrhea, how much should he or she be given to drink: more than usual, about the same as usual, less than usual, or nothing to drink at all?	MORE THAN USUAL1ABOUT THE SAME2LESS THAN USUAL3NOTHING TO DRINK4DON'T KNOW8	

## SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.		
	Have you ever heard of (METHOD)?		
01	Female Sterilization. PROBE: Women can have an operation to avoid having any more children.	YES 1 NO 2	
02	Male Sterilization. PROBE: Men can have an operation to avoid having any more children.	YES 1 NO 2	
03	<b>IUD</b> . PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES 1 NO 2	
04	<b>Injectables.</b> PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES 1 NO 2	
05	<b>Implants</b> . PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES 1 NO 2	
06	<b>Pill</b> . PROBE: Women can take a pill every day to avoid becoming pregnant.	YES 1 NO 2	
07	<b>Condom</b> . PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES 1 NO 2	
08	<b>Rhythm Method</b> . PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES 1 NO 2	
09	Withdrawal. PROBE: Men can be careful and pull out before climax.	YES 1 NO 2	
10	<b>Emergency Contraception</b> . PROBE: As an emergency measure, within three/five days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES 1 NO 2	
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES 1	
		(SPECIFY)	
		(SPECIFY)	
		NO 2	

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
302	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Read about family planning in brochure or flipchart? Seen message on family planning in a poster, hoarding board or billboard? Seen street dramas on family planning?	ard about family planning on the radio?RADIO	
303	In the last few months, have you discussed family planning with a health worker or health professional?	YES 1 NO 2	
304	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant when she has sexual relations?	YES	→ 306
305	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS	
306	<ul> <li>I will now read you some statements about contraception. Please tell me if you agree or disagree with each one.</li> <li>a) Contraception is a woman's business and a man should not have to worry about it.</li> <li>b) Women who use contraception may become promiscuous.</li> </ul>	DIS- AGREE AGREE DK CONTRACEPTION WOMAN'S BUSINESS 1 2 8 WOMEN MAY BECOME PROMISCUOUS 1 2 8	
307	CHECK 301 (07): KNOWS MALE CONDOM		→ 401
308	Do you know of a place where a person can get condoms?	YES 1 NO 2	→ 401
309	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.	PUBLIC SECTOR         GOVT. HOSPITAL/CLINIC       A         PHC CENTER       B         HEALTH POST       C         SUB-HEALTH PO       D         PHC OUTREACH       E         MOBILE CLINIC       F         FCHV       G         OTHER PUBLIC       H         (SPECIFY)	
310	(NAME OF PLACE(S))	NON-GOVT. (NGO) SECTOR         FPAN       I         MARIE STOPES       J         ADRA       K         NEPAL RED CROSS       L         UMN       M         OTHER NGO.       N         (SPECIFY)         PRIVATE MEDICAL SECTOR         PRIVATE MEDICAL SECTOR         PRIVATE HOSPITAL/CLINIC         NURSING HOME         O         PHARMACY         P         SANGINI OUTLET         Q         OTHER PRIVATE         MEDICAL         (SPECIFY)         OTHER SOURCE         SHOP         S         FRIENDS/RELATIVES         T         OTHER         X         (SPECIFY)	
310	n you wanteu to, could you yoursell get a condom?	NO 2	

## SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

married? YES, LIVING V	NTLY MARRIED 1 WITH A WOMAN 2	
NO, NOT IN U	JNION 3	> 404
married? YES, LIVED W	RLY MARRIED         1           VITH A WOMAN         2	→ 413
separated? DIVORCED .		410
	HIM 1 SEWHERE 2	
	ГНАN ONE) 1 NE) 2	→ 407
406 Altogether, how many wives or live-in partners do you have? TOTAL NUMB AND LIVE-IN F	BER OF WIVES PARTNERS	
407       CHECK 405:         ONE WIFE/ PARTNER       ONE WIFE/ PARTNER         Please tell me the name of (your wife/the woman you are living with as if married).       MORE THAN ONE WIFE/ PARTNER         Please tell me the name of (your wife/the woman you are living with as if married).       Please tell me the name of each of your wives or each woman you are living with as if married.         RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER.       NAME         IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	408 How old was (NAME) on her last birthday? AGE	
409 CHECK 407: MORE THAN ONE WIFE/ ONE WIFE/	· · · · ·	
PARTNER PARTNER		<b>→</b> 411A
410 Have you been married or lived with a woman only once or more ONLY ONCE than once? ONLY ONCE MORE THAN 0	1 ONCE 2	<b>→</b> 411A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
411	In what month and year did you start living with your (wife/partner)?		
1110		MONTH	
411A	Now I would like to ask about your first (wife/partner). In what month and year did you start living with her?	DON'T KNOW MONTH98	
		YEAR	→ 413
		DON'T KNOW YEAR	
412	How old were you when you first started living with her?	AGE	
413	CHECK FOR THE PRESENCE OF OTHERS.		
	BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIV	/ACY.	
414	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues.	NEVER HAD SEXUAL INTERCOURSE00	→ 501
	How old were you when you had sexual intercourse for the very first time?	AGE IN YEARS FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNE95	
415	Now I would like to ask you some questions about your recent sexual completely confidential and will not be told to anyone. If we should continue know and we will go to the next question.		
416	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO       1         WEEKS AGO       2         MONTHS AGO       3         YEARS AGO       4	→ 430

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
417	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3
418	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES 1 NO 2 (SKIP TO 420) ←	YES 1 NO 2 (SKIP TO 420) ←	YES 1 NO 2 (SKIP TO 420) ← J
419	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2
420	What was your relationship to this person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	WIFE 1 LIVE-IN PARTNER 2 GIRLFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE 4- PROSTITUTE 5- OTHER 6- (SPECIFY) (SKIP TO 423)	WIFE 1 LIVE-IN PARTNER 2 GIRLFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE 4- PROSTITUTE 5- OTHER 6- (SPECIFY) (SKIP TO 423)	WIFE 1 LIVE-IN PARTNER 2 GIRLFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE 4- PROSTITUTE 5- OTHER 6- (SPECIFY) (SKIP TO 423)
421	CHECK 410:	MARRIED MARRIED ONLY MORE ONCE THAN ONCE (SKIP TO 423)	MARRIED MARRIED ONLY MORE ONCE THAN ONCE (SKIP TO 423)	MARRIED MARRIED ONLY MORE ONCE THAN ONCE (SKIP TO 423)
422	CHECK 414:	FIRST TIME WHEN STARTED LIVING WITH OTHER FIRST WIFE (SKIP TO 424)	FIRST TIME WHEN STARTED LIVING WITH OTHER FIRST WIFE (SKIP TO 424)	FIRST TIME WHEN STARTED LIVING WITH OTHER FIRST WIFE (SKIP TO 424)
423	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4
424	How many times during the last 12 months did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
425	How old is this person?	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
426	Apart from (this person/these two people), have you had sexual intercourse with any other person in the last 12 months?	YES 1 (GO BACK TO 417 ← J IN NEXT COLUMN) NO 2 (SKIP TO 428) ← J	YES 1 (GO BACK TO 417 ← J IN NEXT COLUMN) NO 2 (SKIP TO 428) ← J	
427	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
428	CHECK 420 (ALL COLUMNS):		
	AT LEAST ONE PARTNER NO PARTNERS IS PROSTITUTE ARE PROSTIT		→ 430
429	CHECK 420 AND 418 (ALL COLUMNS): CONDOM USED LAST TI EVERY PROSTIT NO CONDOM USED/CONDOM NOT USED LAST TIME WITH		→ 433 → 434
	EVERY PROSTITUTE		° 434
430	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES 1 NO 2	→ 432
431	Have you ever paid anyone in exchange for having sexual intercourse?	YES 1 NO 2	434
432	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES 1 NO 2	→ 434
433	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES	
434	In total, with how many different people have you had sexual intercourse in your lifetime?	NUMBER OF PARTNERS	
	IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	DON'T KNOW	
	IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.		
435	CHECK 418, MOST RECENT PARTNER (FIRST COLUMN):		
	NOT ASKED		→ 438
	CONDOM NO CONDOM USED USED		→ 438
436	You told me that a condom was used the last time you had sex. What is the brand name of the condom used at that time?	DHAAL       01         PANTHER       02         BLACK COBRA       03         KAMASUTRA       04         JODI       05         NUMBER 1       06         MOHP-NO BRAND       07         LILY       08         VEGA       09         SKINLESS SKIN       10         SAFETY       11         GOLD       12         OTHER       96	
	IF BRAND NOT KNOWN, ASK TO SEE THE PACKAGE.	(SPECIFY) DON'T KNOW	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
NO. 437	QUESTIONS AND FILTERS         From where did you obtain the condom the last time?         PROBE TO IDENTIFY TYPE OF SOURCE.         IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.         (NAME OF PLACE)	CODING CATEGORIESPUBLIC SECTOR GOVERNMENT HOSPITAL11PHC CENTER12HEALTH POST13SUB-HEALTH POST14PHC OUTREACH15MOBILE CLINIC17FCHV18CONDOM BOX19OTHER GOVT.16(SPECIFY)NON-GOVT. (NGO) SECTORFPAN21MARIE STOPES22ADRA23NEPAL RED CROSS24UMN25OTHER NGO.26(SPECIFY)PRIVATE MEDICAL SECTORPRIVATE HOSPITAL/CLINICNURSING HOME31PHARMACY32SANGINI OUTLET33OTHER PRIVATE36(SPECIFY)OTHER SOURCE31	SKIP
438	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	FRIENDS/RELATIVES       42         OTHER       96         (SPECIFY)       1         NO       2         DON'T KNOW       8	501
439	What method did you or your partner use? PROBE: Did you or your partner use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATIONAMALE STERILIZATIONBIUDCINJECTABLESDIMPLANTSEPILLFFEMALE CONDOMGDIAPHRAGMHFOAM/JELLYIRHYTHM METHODJWITHDRAWALKOTHER MODERN METHODXOTHER TRADITIONAL METHODY	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED NOT CURRENTLY NOT LIVING WITH A F	AND L	→ 509
502	CHECK 439: MAN NOT MAN STERILIZED STERILIZED		→ 509
503	(Is your (wife/partner)/Are any of your (wives/partners)) currently pregnant?	YES         1           NO         2           DON'T KNOW         8	<b>↓</b> 505
504	Now I have some questions about the future. After the (child/children) you and your (wife(wives)/partner(s)) are expecting now, would you like to have another child, or would you prefer not have any more children?	HAVE ANOTHER CHILD         1           NO MORE         2           UNDECIDED/DON'T KNOW         8	→ 506 ↓ 509
505	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD1NO MORE/NONE2SAYS COUPLE3CAN'T GET PREGNANT3WIFE (WIVES)/PARTNER(S)4STERILIZED4UNDECIDED/DON'T KNOW8	<b>→</b> 509
506	CHECK 407: ONE WIFE/ PARTNER ONE WIF PARTNER ONE WIF PARTNER	E/	→ 508
507	CHECK 503: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT PREGNANT OR DON'T KNOW After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS       1         YEARS       2         SOON/NOW       993         COUPLE INFECUND       994         OTHER       996         (SPECIFY)       998	→ 509
508	How long would you like to wait from now before the birth of (a/another) child?	MONTHS       1         YEARS       2         SOON/NOW       993         HE/ALL HIS WIVES/PARTNERS       994         OTHER       996         (SPECIFY)       998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
509	CHECK 203 AND 205: HAS LIVING CHILDREN If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE       00         NUMBER       00         OTHER       96         (SPECIFY)       96	→ 601 → 601
510	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	NUMBER BOYS GIRLS EITHER NUMBER 96 (SPECIFY)	

#### SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES 1 NO 2	<b>→</b> 604
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES	→ 604
603	Have you done any work in the last 12 months?	YES 1 NO 2	→ 607
604	What is your occupation, that is, what kind of work do you mainly do?		
605	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR1SEASONALLY/PART OF THE YEAR2ONCE IN A WHILE3	
606	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY       1         CASH AND KIND       2         IN KIND ONLY       3         NOT PAID       4	
607	CHECK 401: CURRENTLY MARRIED NOT CURRENTLY NOT LIVING WITH A F	AND	→ 612
608	CHECK 606: CODE 1 OR 2 CIRCLED		→610
609	Who usually decides how the money you earn will be used: you, your (wife/partner), or you and your (wife/partner) jointly?	RESPONDENT       1         WIFE/PARTNER       2         RESPONDENT AND WIFE/       2         PARTNER JOINTLY       3         OTHER       6         SPECIFY	
610	Who usually makes decisions about health care for yourself: you, your (wife/partner), you and your (wife/partner) jointly, or someone else?	RESPONDENT       1         WIFE/PARTNER       2         RESPONDENT AND WIFE/       2         PARTNER JOINTLY       3         SOMEONE ELSE       4         OTHER       6         SPECIFY       3	
611	Who usually makes decisions about making major household purchases?	RESPONDENT       1         WIFE/PARTNER       2         RESPONDENT AND WIFE/       2         PARTNER JOINTLY       3         SOMEONE ELSE       4         OTHER       6         SPECIFY       3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY1JOINTLY ONLY2BOTH ALONE AND JOINTLY3DOES NOT OWN4	
613	Do you own any land either alone or jointly with someone else?	ALONE ONLY1JOINTLY ONLY2BOTH ALONE AND JOINTLY3DOES NOT OWN4	
613A	In your opinion, should a husband hit or beat his wife for any reason at all?	YES	→ 701
614	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES NO DK	
	If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	GOES OUT       1       2       8         NEGL. CHILDREN       1       2       8         ARGUES       1       2       8         REFUSES SEX       1       2       8         BURNS FOOD       1       2       8	

#### SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES	→ 722
702	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES	
703	Can people get the AIDS virus from mosquito bites?	YES	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES	
706	Can people get the AIDS virus by touching someone who has AIDS?	YES	
707	Is it possible for a healthy-looking person to have the AIDS virus?	YES	
708	Can the virus that causes AIDS be transmitted from a mother to her baby:	YES NO DK	
	During pregnancy? During delivery? By breastfeeding?	DURING PREG.         1         2         8           DURING DELIVERY         1         2         8           BREASTFEEDING         1         2         8	
709	CHECK 708: AT LEAST OT ONE 'YES'	HER	→ 711
710	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES	
711	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, M	AKE EVERY EFFORT TO ENSURE PRIVACY.	
712	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES 1 NO 2	→ 716
713	How many months ago was your most recent HIV test?	MONTHS AGO 95	
714	I don't want to know the results, but did you get the results of the test?	YES 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
715	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	GOVT. SECTOR       A         GOVERNMENT HOSPITAL       A         VCT CENTER       B         OTHER GOVT.      C         INON-GOVT. SECTOR	718
716	Do you know of a place where people can go to get tested for the AIDS virus?	YES 1 NO 2	→ 718
717	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	GOVT. SECTOR       A         GOVERNMENT HOSPITAL       A         VCT CENTER       B         OTHER GOVT.       C         (SPECIFY)       C         NON-GOVT. SECTOR       F         FPAN       D         AMDA       E         INF       F         NEPAL RED CROSS       G         OTHER GOVT.       H         (SPECIFY)       H         PRIVATE MEDICAL SECTOR       H         PRIVATE HOSPITAL/CLINIC/       I         OTHER PRIVATE       J         (SPECIFY)       J         OTHER PRIVATE       J         (SPECIFY)       X	
718	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
719	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET       1         NO       2         DK/NOT SURE/DEPENDS       8	
720	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES	
721	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED1SHOULD NOT BE ALLOWED2DK/NOT SURE/DEPENDS8	
722	CHECK 701: HEARD ABOUT AIDS Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact?	YES 1 NO 2	
723	CHECK 414: HAS HAD SEXUAL HAS NOT HAD SEXUAL INTERCOURSE INTERCOURSE		→ 731
724	CHECK 722: HEARD ABOUT OTHER SEXUALLY TRANSMITTED I	INFECTIONS?	
	YES V	NO	→ 726
725	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES	
726	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES 1 NO 2 DON'T KNOW 8	
727	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES	
728	CHECK 725, 726, AND 727: HAS HAD AN INFECTION (ANY 'YES') CHECK 725, 726, AND 727: HAS NOT HAD AN INFECTION OR DOES NOT KNOW		→ 731
729	The last time you had (PROBLEM FROM 725/726/727), did you seek any kind of advice or treatment?	YES 1 NO 2	→ 731

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
NO. 730	Where did you go?         Any other place?         PROBE TO IDENTIFY EACH TYPE OF SOURCE.         IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.         (NAME OF PLACE(S))	GOVT. SECTOR         GOVERNMENT HOSPITAL       A         PRIMARY HEALTH CARE       B         HEALTH POST       C         SUB-HEALTH POST       D         PHC OUTREACH.       E         FAMILY PLANNING CLINIC       F         MOBILE CLINIC       G         FIELDWORKER       H         OTHER GOVT.       I         (SPECIFY)       NON-GOVT. SECTOR         FPAN       J         AMDA       K         ADRA       L         INF       M         NEPAL RED CROSS       N         UMN       O         OTHER NON-GOVT.       P         (SPECIFY)       PRIVATE MEDICAL SECTOR         PRIVATE MEDICAL SECTOR       P         PRIVATE MEDICAL SECTOR       P         OTHER PRIVATE       Q         OTHER PRIVATE       Q         OTHER PRIVATE       R	SKIP
		OTHER SOURCE OTHERX (SPECIFY)	
731	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES 1 NO 2 DON'T KNOW 8	
732	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES	

#### SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months?		
	IF YES: How many injections have you had?		
	IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'.	NONE 00	→ 804
	IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.		
802	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker?	NUMBER OF INJECTIONS	
	IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'.	NONE 00	→ 804
	IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.		
803	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES	
804	Do you currently smoke cigarettes?	YES 1 NO 2	→ 806
805	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES	
806	Do you currently smoke or use any (other) type of tobacco?	YES 1 NO 2	<b>→</b> 807A
807	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE A BIDI B CHEWING TOBACCO C SNUFF D	
		OTHERX (SPECIFY)	
807A	In the last few months have you heard or seen the following programs on the radio and/or television:	YES NO	
	Jana Swastha Radio Karyakram?	JANA SWASTHA 1 2	
	Janasankhya Radio Karyakram?	JANASANKHYA 1 2	
	Hamro Swastha Radio Karyakram?	HAMRO SWASTHA 1 2	
	Ama radio Karyakram?	AMA RADIO 1 2	
	Hamro Swastha TV Karyakram?	HAMRO SWASTHA 1 2	
	Jeevan Chakra TV Karyakram?	JEEVAN CHAKRA 1 2	
	Thorai Bhaya Pugisari Radio Karyakram?	THORAI BHAYA 1 2	
	Ama TV Karyakram?	AMA TV 1 2	
	Sathi Sanga Manka Kura?	SATHI SANGA MANKA . 1 2	
	Jeevan Jyoti Radio Karyakram?	JEEVAN JYOTI 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
807B	Which source of media do you prefer the most to receive health-related messages?	NEPAL RADIO       01         FM       02         TELEVISION       03         NEWSPAPER OR MAGAZINE       04         BROCHURE OR LEAFLET       05         FLIPCHART       06         POSTER       07         HOARDING/BILLBOARD       08         OTHER       96         (SPECIFY)       96	
808	RECORD THE TIME.	HOUR	

## INTERVIEWER'S OBSERVATIONS

## TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:		
COMMENTS ON SPECIFIC QUESTIONS:		
ANY OTHER COMMENTS:		
	SUPERVISOR'S OBSERVATIONS	
NAME OF SUPERVISOR:	DATE:	