

Cambodia



**Demographic and
Health Survey**

2000



KINGDOM OF CAMBODIA

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Cambodia
Demographic and Health Survey
2000

National Institute of Statistics
Ministry of Planning

Directorate General for Health
Ministry of Health

Phnom Penh, Cambodia

ORC Macro
Calverton, Maryland USA

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The following persons contributed to the analysis of the Cambodia Demographic and Health Survey and the preparation of this report:

Bernard Barrère, ORC Macro
Sovanratnak Sao, DGH/MoH
Robert Johnston, ORC Macro
Darith Hor, NIS/MoP
Kiersten Johnson, ORC Macro
Jasbir Saggu, ORC Macro
Sunita Kishor, ORC Macro

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Additional information about the Cambodia DHS survey may be obtained from the National Institute of Statistics, 386 Monivong Blvd., Phnom Penh, Cambodia (telephone: 855 23 364 371; e-mail: sansythan@forum.org.kh). Information about the MEASURE *DHS+* project may be obtained from ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone: 301-572-0200; fax: 301-572-0999; e-mail: reports@macroint.com; internet: www.measuredhs.com).

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FOREWORD

With great pleasure, we would like to introduce the first ever Cambodia Demographic and Health Survey that was conducted successfully in the year 2000. This survey is sponsored by UNFPA, UNICEF, and USAID, and technical assistance was provided by ORC Macro. The National Institute of Statistics (NIS) of the Ministry of Planning and the Directorate General for Health of the Ministry of Health (MoH) were the project implementation agencies. The NIS was responsible for monitoring the progress of the project. Fieldwork for the CDHS took place from early February to the end of July 2000.

This report presents the main findings of the CDHS 2000. It includes information on demography, family planning, infant and child mortality, domestic violence, and health-related information such as breastfeeding, antenatal care, children's immunization, childhood diseases, and HIV/AIDS. Also, the questionnaires are designed to evaluate the nutritional status of mothers and children and to measure the prevalence of anemia.

The findings from the CDHS 2000 are expected to be used by policymakers to evaluate the demographic and health status of the Cambodian population in order to formulate appropriate population and health policies and programmes in Cambodia. Reproductive health and child health programmes and facilities need to be expanded and improved to reduce the gaps between the levels of social and economic development of other ASEAN countries.

We deeply appreciate the UNFPA, UNICEF, and USAID for sponsoring the project and ORC Macro for providing technical assistance. We gratefully acknowledge the support and encouragement extended by HE. Mam Bun Heng, Secretary of State-Ministry of Health, HE. Lay Prohas, Secretary of State-Ministry of Planning, HE. Eng Huot, Director General of Health, HE. San Sy Than, Director, NIS, and other members of the Executive Committee and Technical Committee who contributed greatly to the timely execution of survey activities and successful completion of the survey as planned.

We are grateful to all the persons involved in survey design and implementation, data processing, analysis of the results, and report writing for the CDHS 2000, and especially NIS and MoH staff at central and provincial offices who contributed in making the survey a success.



Chhay Than
Minister of Planning

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The Cambodia Demographic and Health Survey 2000 is the first survey of its kind conducted in Cambodia. The survey was sponsored by UNFPA, UNICEF, and USAID. It was implemented by the National Institute of Statistics (NIS), Ministry of Planning (MoP) in collaboration with the Directorate General for Health, Ministry of Health (MoH). The survey covered a sample of 12,810 households and 15,557 eligible women. The response rate was about 98 percent.

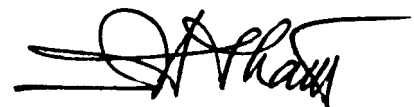
The successful implementation of the CDHS 2000 would not have been possible without the close cooperation and dedicated efforts of many institutions and individuals. We are indeed very grateful to H.E. Chhay Than, Minister of Planning for his continuous support and encouragement, from the stage of planning for the survey until the finalization of the report. The Executive Committee and Technical Committee for the survey provided overall guidance and technical advice, from time to time, which proved invaluable. The active support and guidance of Excellencies Secretaries of State, HE. Dr. Mam Bun Heng, Ministry of Health and HE. Lay Prohas, Ministry of Planning is acknowledged with deep gratitude. We highly appreciate the contribution made by Ms. Yoshiko Zenda, UNFPA Representative, Ms. Nuzhat Ehsan, Deputy Representative of UNFPA, Mr. May Tum, UNFPA National Programme Officer, Dr. Kees Goudswaard, Monitoring and Evaluation Officer, UNICEF, Dr. Randy Kolstad and Ngudup Paljor from USAID, and Ms. Raji Rao, consultant of UNFPA.

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We extend our deepest gratitude to all supervisors, field editors and interviewers from NIS of MOP, MOP central and local offices (planning and statistics staff) and MOH staff (central and local offices) whose dedicated efforts ensured the quality and timeliness of the survey and to all respondents for contributing their time and for giving the required information, enabling us to produce high-quality data for the country.

Finally, we would like to thank the core staff of CDHS, the CDHS field and office staff, and other individuals who contributed to the success of the survey.



San Sy Than
Survey Director

SUMMARY OF FINDINGS

This report presents the results of the 2000 Cambodia Demographic and Health Survey (CDHS 2000). The principal objective of the survey is to provide policymakers and planners with current and reliable data on household and women's characteristics, fertility and family planning behavior, child and maternal mortality, children's nutritional status, utilization of maternal and child health services, women's status and household relations, illnesses and injuries, and knowledge of HIV/AIDS.

During the course of the CDHS survey, 15,351 women between the ages of 15 and 49 were interviewed, comprising the largest demographic and health survey in Cambodia to date and providing population and health data for analysis at the national and regional levels.

Although significantly expanded in content, the CDHS 2000 survey is a successor to the 1998 National Health Survey (NHS) and provides updated estimates of demographic and health indicators covered in the earlier survey. The CDHS survey also provides complementary information to the 1998 General Population Census. Together, these sources of information will be used for formulating strategies of development for Cambodia.

FERTILITY

Cambodia's age and sex distributions reflect the impact of the Khmer Rouge regime between 1975 and 1979. During and after the regime, mortality levels were high, particularly for men, and fertility decreased. After the civil conflict, a baby boom occurred, reflected in the large proportion of the population that is aged 20 or less (55 percent of the total population).

At current fertility levels, a Cambodian woman will give birth to an average of four children during her lifetime. Women in rural areas will

give birth to an average of one child more than women in urban areas (4.2 compared with 3.1 children, respectively). Women with no education have on average half a child more than those with primary education, but 1.6 children more than those who have secondary and higher levels of education.

Longer birth intervals contribute to lower total fertility levels, as well as to the improved health status of the mother and child. Most Cambodian women (79 percent) have a birth interval of 24 months or greater. Median birth intervals are shortest in the regions of Mondol Kiri/Rotanak Kiri and Kampong Chhnang (29.3 and 29.5 months, respectively) and longest in Phnom Penh and Prey Veang (37.7 and 37.6 months, respectively).

FERTILITY PREFERENCES AND DEMAND FOR FAMILY PLANNING

Knowledge of family planning is very high in Cambodia, with 92 percent of all women and 96 percent of married women knowing a contraceptive method. Desire to space or limit the number of children is also high, as expressed by half of currently married Cambodian women. This suggests that there is a demand for family planning services among the women who would like to space or limit their births. Interestingly, there is not a great difference in demand for family planning between urban and rural women: 60 percent of urban women compared with 56 percent of rural women have an unmet need for spacing or limiting their births.

About one-third (32 percent) of births in Cambodia are unplanned: 9 percent were mistimed and 24 percent were not wanted at all. The total wanted fertility rate is 3.1 children, which is almost one child less than the actual fertility rate of 4.0. The gap between wanted and actual fertility is greatest among women living in rural areas and uneducated women. These

results suggest that while the level of knowledge about contraception is very high in Cambodia, the level of unmet need for family planning services is high as well.

WOMEN'S EMPLOYMENT, WOMEN'S STATUS, AND DOMESTIC VIOLENCE

Almost three-quarters of women were working at the time of the survey; most women work seasonally (48 percent), while 24 percent of women work year-round. Fifty-one percent of all working women in Cambodia are either paid in kind or not paid at all; highly educated women and women in nonagricultural occupations are much more likely to earn cash than other women. Among currently married women who earn cash for their work, 47 percent report that they alone make the decisions about how their earnings will be used, while 50 percent report that they and their husband make the decisions jointly. It is interesting to note that large proportions of household expenditures are met with Cambodian women's earnings.

Women's ability to access health services and information, which is associated with their status or empowerment within their society or household, is crucial to their own health as well as that of their family. One important aspect of women's status and empowerment is the belief in the ideal of gender equality in roles and rights in society as well as in the home. The CDHS survey explored women's acceptance of unequal gender roles and found that although most women believe that it is better to educate a son than a daughter (59 percent), indicating an acquiescence to societal gender inequality, even greater proportions of women believe that husbands should help with household chores, that it is unacceptable for a man to have extramarital sex, and that a woman should not tolerate beatings to keep the family together (85 percent, 89 percent, and 86 percent, respectively).

Sixty-five percent of Cambodian women do not agree with any of the specific reasons that a

husband might be justified in beating his wife. Despite this widespread intolerance of a husband's physical abuse of his wife, the CDHS survey found that one out of four ever-married women in Cambodia age 15-49 have experienced physical violence since age 15, and one out of seven (15 percent) have experienced violence in the 12 months preceding the survey. The most common form of violence is by current and previous husbands. Among women who reported experiencing severe violence in the last 12 months, 53 percent report having had bruises and aches, and 13 percent report injuries and broken bones because of something the husband did.

MATERNAL HEALTH

Access to professional maternity care is relatively low in Cambodia: 38 percent of women received antenatal care from trained health personnel for pregnancies that occurred in the last five years. During the same period, more than half of Cambodian mothers (55 percent) did not receive any antenatal care for their pregnancies. However, 40 percent of women who received antenatal care reported that they were informed of pregnancy-related complications during their visits. The median number of visits is 2, about 6 times less than the recommended number of 12 or 13 visits, and the median duration of pregnancy for the first antenatal care visit is 5.8 months, indicating that women start antenatal care at a relatively late stage of their pregnancy.

Most Cambodian babies (89 percent) born in the five years before the survey were delivered at home. Only 10 percent of births took place in a health facility. Although traditional birth attendants assisted at the majority of births (66 percent), 32 percent of births were attended by a trained health professional: 28 percent by a midwife and the remaining 4 percent by a doctor or nurse. Fifty-seven percent of urban women received delivery assistance from a trained professional, in contrast to rural women, of whom 28 percent received trained professional help: rural women are more likely to

receive assistance from a traditional birth attendant (70 percent).

Forty-six percent of mothers who gave birth during the five years preceding the survey received no postnatal care at all. One-third of women who delivered outside of a health facility received postnatal care from traditional birth attendants, about one in seven received care from a midwife, and only 1 percent received care from a doctor/nurse.

CHILD HEALTH

Forty percent of Cambodian children age 12-23 months are fully vaccinated, while 71 percent have received the BCG vaccination and 55 percent have been vaccinated against measles. The coverage for the first dose of DPT is higher (68 percent), compared with the third dose (49 percent): the drop rate is 29 percent between the first and the third dose of DPT. Polio coverage is much higher than DPT coverage, primarily due to the success of the national immunization day campaigns during which polio vaccines are administered. Three in four children age 12-23 months received the first dose of polio, 64 percent received the second dose, and 52 percent received the third dose. In addition, about 30 percent of children received polio vaccination at birth.

Regarding childhood illnesses, 20 percent of children under five years of age showed symptoms of acute respiratory infection (ARI), the leading cause of childhood morbidity and mortality, at some time in the two weeks preceding the survey. Children age 6-11 months are most likely to suffer symptoms of ARI (27 percent), compared with all other age groups.

As with ARI, children age 6-11 and 12-23 months are more commonly sick with fever (48 and 44 percent, respectively) than other children. Regional variations were significant, ranging from 4 percent in Prey Veng to 54 percent in Kampong Chhnang. Thirty-one percent

of children with fever, cough, and rapid breathing were not taken for treatment.

Nineteen percent of children under five years of age had diarrhea in the two weeks preceding the survey. The occurrence of diarrhea varies by age of the child and follows the same pattern as ARI and fever. Only 22 percent of children with diarrhea were taken to a health provider. One in two women who gave birth in the five years preceding the survey knew about oral rehydration salts (ORS). However, 48 percent of children with diarrhea were treated with some kind of oral rehydration therapy (ORT): 18 percent were treated with a solution prepared from an ORS packet, 3 percent were given recommended home fluids (RHF), and 40 percent were given rice water. Other treatments for diarrhea consisted of pills or syrup (57 percent), injections (7 percent), and other/home remedies (9 percent).

BREASTFEEDING AND NUTRITION

Breastfeeding is nearly universal in Cambodia, with 96 percent of children born in the five years preceding the survey ever breastfed. However, only 11 percent of infants were put to breast within an hour after delivery and one-fourth of infants were breastfed within the first day. The median duration of breastfeeding among children under 3 years of age is 24 months.

Contrary to the recommendation of the World Health Organization to exclusively breastfeed for the first six months, only 18 percent of Cambodian children under two months are exclusively breastfed. Complementary feeding starts early: 70 percent of children under two months of age receive breast milk and water, 4 percent receive breast milk and other water-based liquids, and another 4 percent receive breast milk and complementary food. The practice of bottle-feeding is not common.

About 77 percent of children under age three receive some type of solid or mushy food by 6-9 months of age. Grain supplements are more

commonly consumed than roots, tubers, beans and legumes and lentils. Meat, fish, poultry, and eggs are received by half of the children age 6-9 months.

Chronic malnutrition among Cambodian children under five years of age is very high: 45 percent of children are stunted (short for their age), and more than one in five children (21 percent) is severely stunted. Fifteen percent of children less than five years of age are wasted (too thin for their height), and 45 percent of children age five and below are underweight.

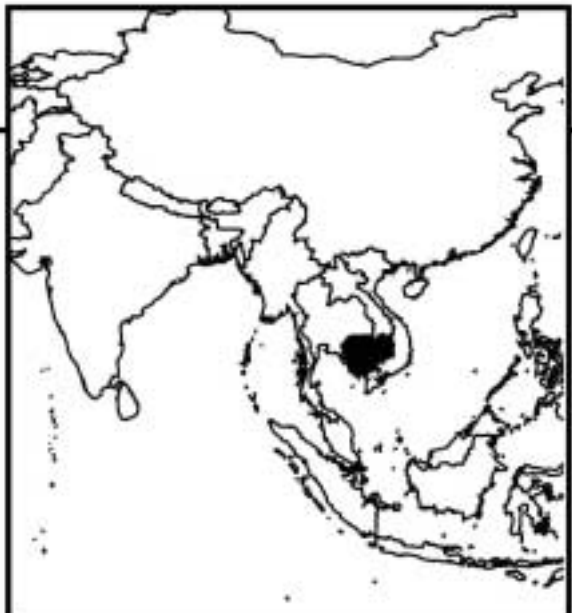
The nutritional status of women is also an issue of importance. The mean height of Cambodian women is 153 centimeters. About 6 percent of women are shorter than 145 centimeters and are considered to be at nutritional risk. One in five women falls below the cutoff of 18.5 (kg/m²) for the body mass index (BMI). In general, very young women age 15-19 and rural women are more likely than other women to suffer from chronic energy deficiency.

KNOWLEDGE OF HIV/AIDS

A very high percentage of Cambodian women (95 percent) have heard of AIDS, and a surprising 48 percent of women say that they

know someone personally who has AIDS or who has died of AIDS. Given the high levels of awareness of this syndrome in both urban and rural areas, it is not surprising that 69 percent of women were able to cite two or three important ways to avoid contracting HIV/AIDS and another 4 percent were able to cite one way. Seventy-two percent of respondents mentioned the use of condoms as a specific way to avoid HIV/AIDS, 68 percent mentioned limiting the number of one's sexual partners, and 60 percent cited abstinence, all of which are methods of avoidance considered to be programmatically important. Women in urban areas and women who have more education are more likely to know about HIV and ways to avoid it than other women.

Knowledge of HIV-related issues is also important in understanding how to prevent contracting HIV and in checking the spread of the disease in a population. Sixty-three percent of women believe that a healthy-looking person can have the virus, and most women also recognize that the infection can be transmitted from a mother to her children in a variety of ways: during pregnancy (70 percent), during delivery (62 percent), and by breastfeeding (67 percent).



1.1 GEODEMOGRAPHY, HISTORY, AND ECONOMY

Geodemography

Cambodia is an agricultural country located in Southeast Asia; it is bounded by Thailand to the west, Laos and Thailand to the north, the gulf of Thailand to the south, and Vietnam to the east. It has a total land area of 181,035 square kilometers. The maximum extent of the country from the east to the west is approximately 580 kilometers; it extends for 450 kilometers from the north to the south.

Cambodia has a tropical climate with two distinct monsoon seasons, which set the rhythm of rural life. From November to February, the cool, dry northeastern monsoon brings little rain, whereas the southwestern monsoon carries strong winds, high humidity, and heavy rains. The mean annual temperature for Phnom Penh, the capital city, is 27°C. April is the hottest month in which maximum daily temperature can soar up to more than 40°C.

The 1962 Census was the last official census to be conducted prior to 1998; it revealed a population of 5.7 million. The population census in 1998 recorded the number of the people in the country at 11,437,656 with an annual growth rate of 2.5 percent (National Institute of Statistics, 1999). The 1998 census showed that 51.8 percent of the population was female and 48.2 percent was male. The percentage of the population age 0-14 was 42.8 percent, with 53.7 percent age 15-64 (Table 1.1).

Demographic indicators from various sources, Cambodia	
Population (millions)	11,437,656
Density (per square km.)	64
Percent urban	15.7
Annual population growth rate (percent)	2.5
Source: General Population Census of Cambodia, 1998 (National Institute of Statistics, 1999)	

In Cambodia, 84 percent of the population lives in rural areas whereas 16 percent lives in urban areas. The population density in the country as a whole is 64 per square kilometer. This density differs significantly from one province to another: for example, the density can range from a mere 2 per square kilometer in Mondol Kiri province (a remote and mountainous area) to 3,448 per square kilometer in the capital city of Phnom Penh. It is shown that, according to the 1998 census, about one million inhabitants (999, 809) live in Phnom Penh. The average household size of a Cambodian family is 5.4 people. In urban areas it is 5.7 people—higher than that of the rural areas (5.3 people per household on average).

History

After nearly a century under French control, Cambodia had gained complete independence from France under the leadership of Prince Norodom Sihanouk on 9 November 1954 with the recognition of the Geneva Conference in May 1954. However, under his reign, an internal political

conflict continued. In March 1970, a promilitary coup led by General Lon Nol overthrew Prince Sihanouk.

On 17 April 1975, the Khmer Rouge ousted the Lon Nol regime and took control of the country. Under the new regime, the country was renamed Democratic Kampuchea. Just a few weeks after taking power, the radical Khmer Rouge forced the whole population of the capital city and provincial towns to leave for the countryside where they were placed in mobile teams and worked as slaves in the fields from 12 to 15 hours a day. Cut off from the outside world, Cambodia then came into a dark era, or year zero society, as all national infrastructures were completely eradicated. Nearly three million Cambodian people died during the Khmer Rouge's most radical and genocidal regime.

On 7 January 1979, the revolutionary army of the National Front for Solidarity and Liberation of Cambodia defeated the Khmer Rouge regime and then proclaimed the country as the People's Republic of Kampuchea and later the State of Cambodia in 1989.

The most important event was the free elections on 25 May 1993 with the turnout of 89.6 percent under the close supervision of the United Nations Transitional Authority in Cambodia (UNTAC). Since then, Cambodia was proclaimed as the Kingdom of Cambodia again with a system of constitutional monarchy. Now, Cambodia is stable and on its way to democracy and a brilliant future.

Economy

Since the 1991 Paris Peace Accord, Cambodia's economy has made remarkable progress after more than two decades of political unrest (Ministry of Planning, 1999). However, Cambodia still remains the poorest and least developed country in Asia, with the gross domestic product per capita estimated at approximately \$238 in 2000. The government expenditure on health is \$1 per capita.

Agriculture, mainly rice production, is still the main economic activity for Cambodia. In addition, small-scale subsistence agriculture, such as fisheries, forestry, and livestock, are still the most important sector, which accounted for about 38 percent of the GDP in 2000. Tourism services are also important components of foreign direct investment.

1.2 HEALTH STATUS AND POLICY

Cambodian health is still among the worst in the Western Pacific Region. The overall health system performance was ranked 174th among other member states of the World Health Organization (WHO, 2000). The average life expectancy at birth is estimated at 54.4 years. For males, life expectancy at birth is 54 years, whereas females can expect to live an average of 58 years. Due to poverty, poor sanitation, and inadequate health services, it is estimated that more than one in ten Cambodian children dies before his or her fifth birthday. The pattern of morbidity and mortality have remained virtually unchanged for years, and the general populace seems to be greatly affected by the same diseases including diarrhea, acute respiratory infections (ARI), dengue hemorrhagic fever, malaria, malnutrition, and other vaccine-preventable diseases. The maternal mortality rate (MMR) is 437 per 100,000 live births, due mainly to abortion complications, eclampsia, and hemorrhage.

HIV/AIDS now poses a serious public health problem in Cambodia due to the epidemic rapid pace of growth. In 2000, a sero-prevalence rate of 2.8 percent was found among the population age 15-49. Currently, it is estimated that there are about 169,000 HIV-infected people living in Cambodia.

Landmine accidents also pose a major health concern. However, a significant decrease in the number of cases, from 1,265 in 1997 to 727 in 1998, was reported by public health services. Cambodia is still recorded as having the highest prevalence rate of amputation, 1 per 236 persons, in the world. It is estimated that 4 to 6 million landmines remain in the ground in Cambodia (Ministry of Planning, 1999).

The goal of the Ministry of Health (MoH) is the promotion of the people's health, which will enable them to participate in economic and social development and to contribute to the alleviation of poverty (Ministry of Health, 2000). The government's policies for health sectors hinge on the following priorities:

- Providing basic health services to all Cambodian people, with community involvement
- Decentralizing financial and administrative functions
- Developing human resources
- Fostering competition among public and private sectors based on technology and professional ethics
- Promoting people's awareness of the qualifications of health care providers and a healthy lifestyle
- Promoting health legislation
- Paying special attention to women's and children's health, and controlling and preventing communicable diseases
- Taking into account specific priority groups such as the elderly and the disabled, and specific health issues, including mental health, eye care, and oral health
- Strengthening the health information system.

1.3 OBJECTIVE AND SURVEY ORGANIZATION

The Cambodia Demographic and Health Survey 2000 (CDHS) is the first nationally representative survey ever conducted in Cambodia on population and health issues. The primary objective of the survey is to provide the Ministry of Health, Ministry of Planning (MoP), and other relevant institutions and users with updated and reliable data on infant and child mortality, fertility preferences, family planning behavior, maternal mortality, utilization of maternal and child health services, health expenditures, women's status, domestic violence, and knowledge and behavior regarding AIDS and other sexually transmitted infections (STIs). This information contributes to policy decisions, planning, monitoring, and program evaluation for the development of Cambodia, at both national- and local-government levels.

The long-term objectives of the survey are to technically strengthen the capacity both of the Ministry of Health and the National Institute of Statistics (NIS) of MoP for planning, conducting, and analyzing the results of further surveys.

The CDHS 2000 survey was conducted by the National Institute of Statistics of the Ministry of Planning, and the Ministry of Health. The CDHS executive committee and technical committee were established to oversee all technical aspects of implementation. They consisted of representatives from the Ministry of Health, the Ministry of Planning, the National Institute of Statistics, the United Nations Population Fund (UNFPA), the United Nations Children’s Fund (UNICEF), and the U.S. Agency for International Development (USAID). ORC Macro provided technical assistance including sampling design, survey methodology, interviewer training, and data analysis through the MEASURE *DHS+* project. Funding for the survey came from UNFPA, UNICEF, and USAID.

1.4 SAMPLE DESIGN

The CDHS survey called for a nationally representative sample of 15,300 women between the ages of 15 and 49. Survey estimates are produced for 12 individual provinces (Banteay Mean Chey, Kampong Cham, Kampong Chhnang, Kampong Spueu, Kampong Thum, Kandal, Kaoh Kong, Phnom Penh, Prey Veang, Pousat, Svay Rieng, and Takaev) and for the following 5 groups of provinces:

- Bat Dambang and Krong Pailin
- Kampot, Krong Preah Sihanouk, and Krong Kaeb
- Kracheh, Preah Vihear, and Stueng Traeng
- Mondol Kiri and Rotanak Kiri
- Otdar Mean Chey and Siem Reab.

The master sample developed in 1998 by the National Institute of Statistics served as the sampling frame for the CDHS survey. The master sample is based on the 1998 Cambodia General Population Census and consists of 600 villages selected with probability proportional to the number of households within the village. Villages are listed with the total population count and the number of enumeration areas (EAs), households, and segments. Enumeration areas were created during the cartography conducted in preparation for the 1998 census. A segment in a village corresponds to a block of about ten households. Segments were created only for villages retained in the master sample and maps showing their boundaries were also available for all of them.

The sample for the CDHS survey is a stratified sample selected in three stages. As for the master sample, stratification was achieved by separating every reporting domain into urban and rural areas. The sample was selected independently in every stratum.

The master sample contains a small number of villages for some of the provinces. For this reason, additional villages were directly selected from the census frame in order to reach the required sample size in these provinces. In the first stage, 471 villages were selected with probability proportional to the number of households in the village. Of these 471 villages, 63 were directly selected from the 1998 census frame. In the second stage, 5 or fewer segments were retained from each of the villages selected from the master sample, while 1 EA was retained from each of the 63 villages directly selected from the 1998 census frame. Each of these EAs consists of several segments.

A household listing was carried out in all selected segments and EAs, and the resulting lists of households served as the sampling frame for the selection of households in the third stage. All women 15-49 were interviewed in selected households.

In addition, a subsample of 50 percent of households was selected for data collection of anthropometry. Anemia testing was implemented in 25 percent of the sample. Only the women identified in the households with anemia testing were eligible for the section related to women's status. In this subsample of households, only one woman was selected in each household to be interviewed on domestic violence.

1.5 QUESTIONNAIRES

Two types of questionnaires were used in the CDHS 2000 survey: the Household Questionnaire and the Women's questionnaire. The contents of these questionnaires were based on the international MEASURE DHS+ model. They were modified according to the situation in Cambodia and were designed to provide information needed by health and family planning program managers and policymakers, mainly the Ministry of Health, the Ministry of Planning, and other relevant institutions and organizations. The agencies involved in developing these questionnaires were the National Institute of Public Health/MoH, the National Institute of Statistics/MoP, UNFPA, UNICEF, USAID, WHO, Hellen Keller International, Marie Stopes International, the Ministry of Women's Affairs, Project Against Domestic Violence, and the Demographic and Health Surveys (DHS) project of ORC Macro. The questionnaires were developed in English and then translated into Khmer. Back translation of the questionnaires, from Khmer to English, was also conducted.

The Household Questionnaire enumerated all the usual members and visitors of the selected households and collected information on the socioeconomic status of the households. The first part of the questionnaire collected information on the relationship of the persons to the head of household and items such as residence, sex, age, marital status, and level of education. This information was used to identify women who were eligible for the individual interview. The Household Questionnaire also contained information on the prevalence of accidents, physical impairment, illness, and health expenditures. Information was also collected on the dwelling units, including source of water, type of toilet facilities, fuels used for cooking, materials used for the house's floor and roof, and ownership of a variety of consumer goods. In addition, during the household survey, anthropometry and anemia testing were carried out to determine nutritional status among children less than five years old and women age 15-49.

The Women's Questionnaire collected information from all women age 15-49 on the following topics:

- Respondent's background characteristics
- Reproduction
- Contraception (knowledge and use of family planning)
- Pregnancy, antenatal care, delivery, and postnatal care
- Infant feeding practices, child immunization, and health
- Marriage and sexual activity
- Fertility preference
- Husband's background characteristics and women's work
- Knowledge of HIV/AIDS and other sexually transmitted infections
- Maternal mortality and adult mortality

- Women's status
- Domestic violence (household relations module).

1.6 TRAINING AND FIELDWORK

Prior to the main survey, the pretest training and fieldwork were conducted in November and December 1999. Twenty-two interviewers (5 health staff from the MoH in Phnom Penh and 17 from provincial health departments) were trained to perform the pretest within three-week periods. The pretest fieldwork was carried out over a one-week period in both rural and urban areas and resulted in 240 completed pretest interviews. In addition, anemia testing and iodine testing for household salt were also included in the pretest. Debriefing sessions were held with the field staff and survey coordinators, and questionnaires were then modified based on the outcome of the pretest.

The training of the main survey was carried out from January 3 to February 9, 2000. Instruction on interviewing techniques, fieldwork procedures, and a detailed review of questionnaires section by section were thoroughly and clearly explained. In addition, in-class mock interviews among participants, anemia testing, and anthropometry practices were also performed. The practice of the main survey was conducted, in both rural and urban areas, at several locations. For practice purposes, anemia testing, weighing, and measuring children were carried out by team supervisors and field editors as well as team members at two kindergartens and an orphanage in Phnom Penh. The interviewing practices with real respondents took place in areas outside of the main sample. Moreover, during the practice period, team supervisors and field editors were additionally instructed in the procedures for contacting local authorities, editing filled-out questionnaires, and controlling data quality.

The CDHS data were collected by 17 teams, each consisting of a team supervisor, a field editor, and four female interviewers. Each team was in charge of data collection in one province or a group of provinces. Coordination and supervision of the interviewing activities were done by four survey coordinators and four supervisory staff members from the National Institute of Statistics/MoP and the Ministry of Health. Data collection took place over a six-month period, from February to July 2000.

1.7 DATA PROCESSING

All completed questionnaires were brought to the National Institute of Statistics for data processing. Questionnaires were checked for the selected households and eligible respondents by the office editors. Moreover, the few questions that had not been precoded (e.g., occupation) were coded prior to data entry. Data were then entered and edited using the software package Integrated System for Survey Analysis (ISSA) developed specially for the Demographic and Health Survey program. Data entry and office editing commenced in February and was completed in October 2000. To provide feedback for the field teams, the office editors were instructed to report any problems found during the editing of questionnaires. These reports were reviewed by the senior staff. If serious errors were detected in one or more questionnaires from a cluster, the team's supervisor working in the cluster was informed and advised of the measures to be taken to prevent these problems in the future.

1.8 COVERAGE OF THE SURVEY

Table 1.2 presents the information on the survey coverage of the households and individual interviews. The table shows that a total of 12,810 households were selected in the sample, of which 12,475 were occupied at the time the fieldwork was carried out. Of the 12,475 occupied households, 12,236 were successfully interviewed, resulting in a household response rate of 98.1 percent. The main reason for the noninterviewed households was that those households no longer existed in the sampled clusters at the time of the interview.

A total of 15,558 women in these households were identified as women eligible to be interviewed. Questionnaires were then completed for 15,351 of those women, which represented a response rate of 98.7 percent. The principal reason for nonresponse among eligible women was a failure to find them at home despite repeated visits to their household.

Table 1.2 Results of the household and women's interviews

Results of the household and women's interviews, according to residence, Cambodia 2000

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households sampled	1,892	10,918	12,810
Households occupied	1,842	10,633	12,475
Households interviewed	1,817	10,419	12,236
Household response rate	98.6	98.0	98.1
Women's interviews			
Number of eligible women	2,656	12,901	15,557
Number of eligible women interviewed	2,627	12,724	15,351
Eligible woman response rate	98.9	98.6	98.7

This chapter provides a summary of the socioeconomic characteristics of households and respondents surveyed, including age, sex, place of residence, educational status, household facilities, and household characteristics. Information collected on the characteristics of the households and respondents is important in understanding and interpreting the findings of the survey and provides indicators of the representativeness of the survey. The information is also useful in understanding and identifying the major factors that determine or influence the basic demographic indicators of the population.

Throughout this report, numbers in the tables reflect weighted numbers. Due to the way the sample was designed, the number of cases in some regions appears small since they are weighted to make the regional distribution nationally representative. However, roughly the same number of households and women were interviewed in each province or group of provinces and the number of unweighted cases are always large enough to make the data statistically significant. Estimates based on an insufficient number of cases are shown in parentheses or suppressed.

In this report, the CDHS 2000 data is compared with data from the 1998 National Health Survey (NHS) and the General Population Census of Cambodia 1998. The NHS survey primarily targeted women age 15-49. The NHS survey had a sample size that was half that of the CDHS 2000 survey and used a more limited questionnaire. The NHS survey was conducted by the National Institute of Public Health. The 1998 Census did a complete enumeration of the Cambodian population. The Census instrument consisted of a two-page form that served to collect information on basic sociodemographic information. The Census was conducted by the National Institute of Statistics.

The CDHS 2000 survey collected information from all usual residents of a selected household (the de jure population) and persons who had stayed in the selected household the night before the interview (the de facto population). Since the difference between these two populations is small and to avoid double counting, all tables in this report refer to the de facto population unless otherwise specified. The CDHS survey used the same definition of household as the Census. A household was defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating meals.

2.1 DEMOGRAPHIC CHARACTERISTICS OF HOUSEHOLDS

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also important variables in the study of mortality, fertility, and nuptiality. The effect of variations in sex composition from one population group to another should be taken into account in comparative studies of mortality. In general, a cross-classification with sex is useful for the effective analysis of all forms of data obtained in surveys.

In the household schedule, the CDHS 2000 survey collected information on age in completed years for each household member. When the age was not known, interviewers were instructed to

inquire first for the date of birth in the Gregorian calendar, second using the Khmer calendar, and third using a historical calendar. The age was then calculated using conversion charts. These charts were specifically designed for the purpose of the survey. Interviewers were urged to be precise when recording ages and were warned against omission, especially among children under five years of age.

The distribution of the household population in the CDHS 2000 survey is shown in Table 2.1 by five-year age groups, according to urban-rural residence and sex. The total population counted in the survey was 64,276, with females outnumbering males. The results indicate an overall sex ratio of 92 males per 100 females. The sex ratio does not vary between rural areas and urban areas (92 males per 100 females). The sex ratio observed in the CDHS 2000 is lower than that of the NHS (93 males per 100 females). The Census urban sex ratio (93 males per 100 females) was slightly higher than the CDHS urban sex ratio, while the NHS urban sex ratio was lower (91 males per 100 females). Both the Census rural sex ratio (96 males per 100 females) and the NHS rural sex ratio were higher (93 males per 100 females) than the CDHS rural sex ratio.

Table 2.1 Household population by age, sex, and residence

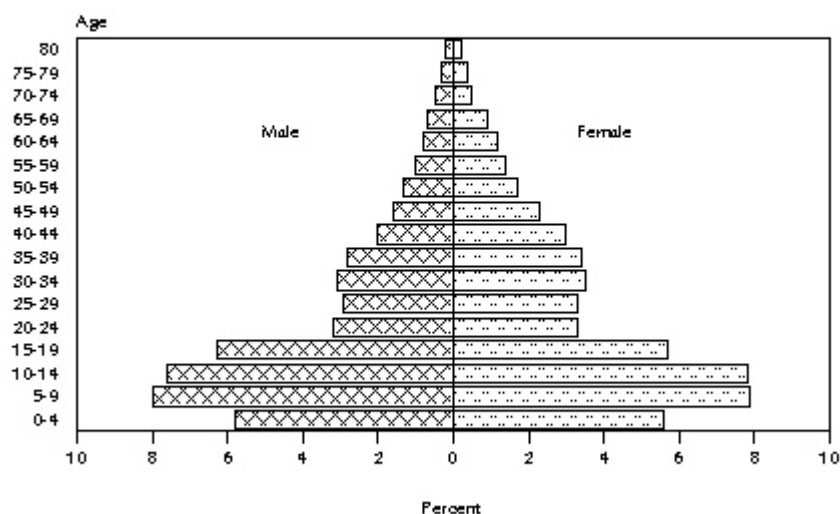
Percent distribution of the de facto household population by five-year age group, according to sex and residence, Cambodia 2000

Age group	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	10.9	8.6	9.7	12.4	11.2	11.8	12.2	10.8	11.5
5-9	15.4	13.2	14.2	16.9	15.5	16.2	16.7	15.1	15.9
10-14	14.7	12.7	13.7	16.0	15.3	15.7	15.8	14.9	15.4
15-19	13.7	14.6	14.2	13.0	10.2	11.5	13.1	10.9	11.9
20-24	7.2	7.0	7.1	6.5	6.2	6.4	6.6	6.3	6.5
25-29	6.4	7.2	6.8	5.9	6.2	6.1	6.0	6.4	6.2
30-34	7.5	7.4	7.4	6.3	6.6	6.4	6.5	6.7	6.6
35-39	6.6	6.4	6.5	5.8	6.5	6.2	5.9	6.5	6.2
40-44	4.5	6.1	5.3	4.0	5.7	4.9	4.1	5.7	4.9
45-49	3.6	4.9	4.3	3.2	4.4	3.8	3.3	4.4	3.9
50-54	3.1	3.2	3.1	2.6	3.3	3.0	2.7	3.3	3.0
55-59	2.1	2.4	2.3	2.2	2.6	2.4	2.1	2.6	2.4
60-64	1.8	2.2	2.1	1.7	2.2	2.0	1.7	2.2	2.0
65-69	1.0	1.9	1.5	1.5	1.7	1.6	1.4	1.7	1.6
70-74	0.9	0.6	0.7	1.0	1.1	1.0	0.9	1.0	1.0
75-79	0.6	0.9	0.8	0.6	0.7	0.6	0.6	0.8	0.7
80 +	0.2	0.5	0.3	0.4	0.5	0.4	0.3	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,745	5,158	9,903	26,027	28,343	54,373	30,772	33,502	64,276

Note: The table is based on the de facto population, i.e., persons who stayed in the household the night before the interview.

The age structure of the household population observed in the survey is typical of a society with a youthful population. The sex and age distribution of the population is also shown in the population pyramid in Figure 2.1. Cambodia has a broad-based pyramid structure due to the majority of the population being under 20 years of age.

Figure 2.1 Population Pyramid



CDHS 2000

Above the age of 25 years, the pyramid follows a usual pattern with decreasing numbers as age increases. As a consequence of the high levels of male mortality in the 1970s, the male/female ratio is lower than usual above the age of 35 years. There is an unusual gap in the pyramid structure for the age groups 20-24 and 25-29: these two age groups are smaller than those above and below. These two groups represent the cohorts born between February through July of 1971 and February through July of 1980. The time of escalating civil war and Khmer Rouge rule falls between these two periods; this era was characterized by few births and very high infant and child mortality.

After the Khmer Rouge rule, a large increase in births occurred and continued until the last five-year period at the base of the pyramid. This last period corresponding to the years 1995 to 2000 reflects a decline in fertility. It also may illustrate an increase in infant mortality. The reduced number of population in the last five-year group also may be due to a generational effect of the population gap mentioned above. There are fewer women entering into their reproductive lives in the 20-24 age group; therefore, there are fewer children born than in the previous periods.

Cambodia has a large dependent population of children and adolescents. Children under 15 years of age account for almost 43 percent of the population, a feature of populations with high fertility levels (Table 2.2). Fifty-four percent of the population is in the age group 15-64, and slightly less than 4 percent are over 65 years of age. The results from the CDHS 2000 survey match almost perfectly those reported by the Census.

Table 2.2 Population by age, according to selected sources

Percent distribution of the de facto population by age group, according to selected sources, Cambodia 2000

Age group	1998 Census ¹	2000 DHS survey
<15	42.8	42.7
15-64	53.7	53.6
65+	3.5	3.6
Total	100.0	100.0

¹ General Population Census of Cambodia, 1998 (National Institute of Statistics, 1999)

2.2 HOUSEHOLD COMPOSITION

Table 2.3 shows the distribution of households in the survey by the sex of the head of the household and by the number of household members in urban and rural areas. Households in Cambodia are predominantly male headed. However, a high percentage of households (25 percent) are headed by females with the proportion of female-headed households higher in urban areas than in rural areas.

The average household size observed in the survey is 5.4 persons, which is similar to the average household size observed in the NHS survey (5.5 persons). Rural households have 5.3 persons per household and are slightly smaller than urban households (5.7 persons). Households with nine or more members are more common in urban areas (11 percent) than in rural areas (8 percent).

Detailed information on children's living arrangements and orphanhood is presented in Table 2.4. In Cambodia, 84 percent of children under 15 live with both parents, 9 percent live with only their mother, a little more than 1 percent live with only their father, and 4 percent live with neither parent. Four percent of children live with their mother even though their father is alive, less than 1 percent of children live with their father even though their mother is alive, and almost 3 percent live with neither parent even though both of them are alive. Six percent of children do not have a father who is alive, and 1 percent do not have a mother who is alive. In total, 7 percent of children have experienced the death of one or both parents. The percentage of children not living with their parents increases with age of the child. The proportion of children living with both parents varies little by sex. Rural children are slightly more likely to live with both parents (81 percent) than urban children (84 percent). The highest proportion of children living with both parents is in Kaoh Kong (90 percent), while the lowest proportion is in the Siem Reab/Otdar Mean Chey provinces (80 percent). In this group of provinces, 12 percent of children have experienced the death of one or both of their parents.

Table 2.3 Household composition

Percent distribution of households by sex of head of household and by household size, according to residence, Cambodia 2000

Characteristic	Residence		
	Urban	Rural	Total
Sex of head of household			
Male	72.1	75.0	74.6
Female	27.9	25.0	25.4
Total	100.0	100.0	100.0
Number of usual members			
1	1.8	1.9	1.9
2	4.7	6.3	6.1
3	10.3	12.2	12.0
4	16.6	17.5	17.4
5	17.6	18.3	18.2
6	14.5	16.2	16.0
7	14.5	11.8	12.2
8	8.9	8.0	8.1
9+	11.0	7.6	8.1
Total	100.0	100.0	100.0
Mean size	5.7	5.3	5.4

Note: The table is based on de jure members; i.e., usual residents.

Table 2.4 Children's living arrangements

Percent distribution of de jure children under age 15 by survival status of parents and children's living arrangements, according to background characteristics, Cambodia 2000

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father/mother	Total	Number
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead			
Age												
<2	92.8	4.2	1.4	0.1	0.1	0.6	0.2	0.1	0.1	0.4	100.0	4,134
2-4	89.7	4.0	2.6	0.2	0.4	1.5	0.4	0.2	0.2	0.8	100.0	4,837
5-9	83.8	4.2	4.5	0.5	0.8	3.0	0.6	0.5	0.6	1.5	100.0	8,730
10-14	77.6	4.0	8.0	0.9	1.4	3.5	0.6	0.8	0.9	2.3	100.0	9,985
Sex												
Male	83.8	4.0	4.9	0.5	0.9	2.6	0.5	0.5	0.6	1.6	100.0	13,892
Female	84.1	4.1	5.0	0.5	0.8	2.5	0.6	0.5	0.6	1.4	100.0	13,794
Residence												
Urban	81.4	4.9	5.5	0.6	0.7	3.3	0.8	0.6	0.7	1.4	100.0	3,780
Rural	84.3	4.0	4.9	0.5	0.8	2.4	0.5	0.5	0.6	1.5	100.0	23,906
Region												
Banteay Mean Chey	86.0	1.9	5.2	0.1	0.0	2.1	0.2	0.6	0.7	3.3	100.0	1,390
Kampong Cham	82.3	4.7	4.1	0.3	0.8	4.5	0.7	0.4	0.7	1.5	100.0	3,597
Kampong Chhnang	82.8	4.7	5.7	0.6	0.6	2.5	0.8	0.8	0.6	0.9	100.0	1,123
Kampong Spueu	81.8	4.2	6.8	1.2	0.8	2.4	1.1	0.7	0.4	0.6	100.0	1,678
Kampong Thum	80.3	4.4	7.7	0.1	1.0	1.5	1.2	0.6	0.8	2.4	100.0	1,484
Kandal	86.6	4.4	4.2	0.4	0.4	2.1	0.1	0.7	0.1	0.9	100.0	2,612
Kaoh Kong	90.1	1.6	3.8	0.5	0.2	1.1	0.3	0.0	0.4	2.1	100.0	302
Phnom Penh	82.3	6.3	3.0	1.2	0.1	5.1	0.5	0.6	0.3	0.6	100.0	1,809
Prey Veang	81.8	4.4	5.8	0.9	1.6	2.9	0.3	0.4	0.5	1.4	100.0	2,262
Pousat	82.1	4.3	5.7	0.7	1.4	2.1	0.4	0.6	0.6	1.9	100.0	915
Svay Rieng	84.6	3.9	5.1	0.1	0.5	1.4	0.1	0.5	0.4	3.5	100.0	1,216
Takaev	89.3	4.7	2.0	0.8	0.6	1.6	0.1	0.2	0.2	0.5	100.0	1,973
Bat Dambang/Krong Pailin	86.8	2.9	5.0	0.3	0.9	2.2	0.1	0.3	0.4	1.0	100.0	1,914
Kampot/Krong Kaeb/Krong Preah Sihanouk	83.0	3.7	6.0	0.1	0.8	2.5	1.2	0.5	0.5	1.9	100.0	1,927
Preah Vihear/Stueng												
Traeng/Kracheh	88.8	3.1	4.0	0.3	0.7	1.1	0.2	0.2	0.7	0.9	100.0	1,137
Mondol Kiri/Rotanak Kiri	88.4	2.1	3.5	0.1	1.7	1.2	0.7	0.2	0.9	1.2	100.0	333
Siem Reab/Otdar												
Mean Chey	80.0	3.2	6.8	0.7	1.9	1.7	0.8	0.5	2.1	2.4	100.0	2,013
Specific project areas¹												
CDCP	83.4	4.1	5.5	0.6	0.9	2.5	0.6	0.5	0.6	1.4	100.0	14,537
BHSP	83.9	4.5	4.4	0.5	0.9	3.0	0.5	0.4	0.5	1.4	100.0	10,171
Total	83.9	4.1	5.0	0.5	0.8	2.6	0.5	0.5	0.6	1.5	100.0	27,686

Note: Orphans are children with both parents dead.

¹ The CDCP (Cambodia Disease Control and Health Development Project) area contains Bat Dambang, Kampong Spueu, Kampot, Krong Kaeb, Kandal, Kampong Thum, Kracheh, Phnom Penh, Pousat, Rotanak Kiri, and Siem Reab. The BHSP (Basic Health Services Project) area contains Kampong Chhnang, Kampong Cham, Prey Veang, Svay Rieng, and Takaev. The total includes project areas BHSP and CDCP and all remaining provinces.

To provide indicators of project impact for the specific Basic Health Services Project (BHSP) financed by the Asian Development Bank (ADB) and the Cambodia Disease Control and Health Development Project (CDCP)¹ financed by the World Bank, the conditions for the combined provinces are presented under the specific project areas subtitle. The percentages of children who live with both parents do not vary greatly between the specific project areas and the national total.

2.3 HOUSEHOLD EDUCATION

Studies show 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.

2.3.1 Educational attainment of household population

Information on the educational level of the male and female population age six and over is presented in Table 2.5.1 and Table 2.5.2. Survey results show that the majority of Cambodians have little or no education, and females are considerably less educated than males. Nineteen percent of males and 34 percent of females have no education. The same amount of males and females have been to preschool (a little more than 1 percent). Fifty-three percent of males and 50 percent of females have only some primary education. Less than 7 percent of males and 4 percent of females have completed primary education only, and 17 percent of males and 9 percent of females have attended, but not completed, secondary school.² Only 2 percent of males and 1 percent of females have completed secondary school or higher.

An investigation of the changes in educational attainment by successive age groups indicates the long-term trend of the country's educational achievement. Survey results show that there has been a strong improvement in the educational attainment of women. For example, the proportion of women with no education has declined significantly from 92 percent among women age 65 and over to 13 percent among women age 10-14. A similar trend is noticeable among men, with the proportion of men with no education declining from 45 percent among those age 65 and over to 9 percent among those age 10-14.

As expected, educational attainment is much higher among the urban than among the rural population. For example, 89 percent of males and 77 percent of females in urban areas have some education, compared with only 79 percent of males and 63 percent of females in rural areas. Regarding regional variation, the percentage of males and females with no education is the highest in the region of Mondol Kiri/Rotanak Kiri (60 percent and 75 percent, respectively), and lowest (5 percent and 14 percent, respectively) in Phnom Penh.

¹ The provinces covered by these two projects are listed in the note of Table 2.4.

² Secondary education refers to both lower secondary (grades 7-9) and upper secondary (grades 10-12).

Table 2.5.1 Educational attainment of household population: male

Percent distribution of the de facto male household population age six and over by highest level of education attended, according to background characteristics, Cambodia 2000

Background characteristic	Level of education							Total	Number	Median years of schooling
	No education	Pre-school	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary			
Age										
6-9	42.4	6.0	51.3	0.0	0.0	0.0	0.0	100.0	4,343	-
10-14	8.8	1.0	85.1	3.3	1.8	0.0	0.0	100.0	4,869	1.4
15-19	11.1	0.0	47.4	10.9	28.4	1.6	0.4	100.0	4,030	4.3
20-24	13.0	0.0	40.0	7.5	32.3	4.8	2.3	100.0	2,044	4.7
25-29	13.6	0.0	36.2	6.7	33.4	7.2	2.8	100.0	1,853	5.0
30-34	13.1	0.0	33.1	7.1	37.8	6.7	2.0	100.0	1,988	5.5
35-39	19.5	0.0	48.6	6.7	20.6	3.8	0.8	100.0	1,826	3.2
40-44	16.3	0.0	54.8	9.6	17.4	1.4	0.5	100.0	1,254	2.9
45-49	12.0	0.0	53.1	11.9	17.7	4.3	0.9	100.0	1,014	3.7
50-54	15.6	0.0	44.3	15.0	19.1	4.5	1.6	100.0	816	4.0
55-59	19.6	0.0	45.0	14.6	16.5	2.7	0.8	100.0	659	3.5
60-64	29.5	0.0	43.5	13.5	11.6	1.4	0.6	100.0	537	2.7
65+	44.8	0.0	41.7	6.2	5.5	0.4	0.0	100.0	1,004	1.4
Residence										
Urban	11.0	1.4	42.5	6.8	26.0	8.5	3.7	100.0	4,103	4.3
Rural	20.7	1.2	54.7	6.6	15.2	1.3	0.2	100.0	22,135	2.2
Region										
Banteay Mean Chey	22.2	3.5	49.7	5.7	17.6	1.3	0.0	100.0	1,227	2.3
Kampong Cham	21.7	0.5	54.7	6.4	14.8	1.0	0.1	100.0	3,416	2.4
Kampong Chhnang	17.3	0.1	64.4	4.3	12.2	1.4	0.2	100.0	941	1.7
Kampong Spueu	26.4	2.5	51.0	4.9	14.3	0.8	0.1	100.0	1,426	1.7
Kampong Thum	20.1	0.7	62.7	5.2	10.5	0.8	0.0	100.0	1,245	1.9
Kandal	16.7	0.1	55.0	8.1	18.4	1.7	0.1	100.0	2,655	2.6
Kaoh Kong	29.0	0.1	50.6	5.4	12.7	1.6	0.1	100.0	271	1.7
Phnom Penh	4.6	2.8	35.4	8.3	29.5	12.2	7.2	100.0	2,401	5.9
Prey Veang	16.8	0.0	58.5	8.3	15.3	1.1	0.0	100.0	2,242	2.6
Pousat	23.0	0.6	59.6	4.2	11.5	0.6	0.4	100.0	770	1.6
Svay Rieng	14.4	0.9	58.7	7.8	17.0	0.8	0.3	100.0	1,160	2.7
Takaev	15.0	3.5	49.5	7.4	22.6	2.0	0.0	100.0	1,927	3.1
Bat Dambang/ Krong Pailin	15.7	0.9	51.8	8.5	19.7	2.7	0.6	100.0	1,821	2.9
Kampot/Krong Kaeb/ Krong Preah Sihanouk	14.7	1.8	56.9	6.6	17.3	2.1	0.1	100.0	1,670	2.6
Preah Vihear/Stueng Traeng/Kracheh	27.2	0.6	52.6	5.8	12.3	1.2	0.1	100.0	1,017	1.5
Mondol Kiri/ Rotanak Kiri	59.9	0.4	27.8	2.9	8.4	0.5	0.0	100.0	279	0.0
Siem Reab/Otdar Mean Chey	35.0	0.0	51.2	3.2	9.1	1.3	0.2	100.0	1,772	0.7
Specific project areas										
CDCP	18.9	1.1	51.3	6.5	17.3	3.4	1.4	100.0	14,020	2.5
BHSP	17.9	1.0	56.0	7.0	16.5	1.2	0.1	100.0	9,685	2.5
Total	19.2	1.2	52.8	6.6	16.9	2.4	0.8	100.0	26,238	2.5

Note: Total includes men with missing information on level of education who are not shown separately.

¹ Completed grade 6 at the primary level

² Completed grade 12 at the secondary level

Table 2.5.2 Educational attainment of household population: female

Percent distribution of the de facto female household population age six and over by highest level of education attended, according to background characteristics, Cambodia 2000

Background characteristic	Level of education							Total	Number	Median years of schooling
	No education	Pre-school	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary			
Age										
6-9	41.7	6.8	51.3	0.0	0.0	0.0	0.0	100.0	4,314	-
10-14	12.9	0.8	80.4	3.6	2.1	0.0	0.0	100.0	5,001	1.5
15-19	18.7	0.0	49.0	9.1	20.9	1.7	0.4	100.0	3,649	3.6
20-24	27.3	0.0	45.2	6.1	17.9	2.5	0.9	100.0	2,116	3.0
25-29	21.3	0.0	47.4	6.3	22.1	2.5	0.4	100.0	2,131	3.5
30-34	26.5	0.0	48.5	5.4	17.3	1.9	0.6	100.0	2,249	2.6
35-39	41.6	0.0	48.7	3.6	5.4	0.3	0.3	100.0	2,187	1.2
40-44	35.6	0.0	52.3	4.0	7.0	0.7	0.2	100.0	1,914	1.7
45-49	36.3	0.0	49.7	5.8	6.8	0.9	0.3	100.0	1,489	1.8
50-54	55.9	0.0	32.6	4.1	6.0	1.0	0.0	100.0	1,102	0.0
55-59	68.7	0.1	23.7	3.6	2.9	0.4	0.2	100.0	874	0.0
60-64	82.4	0.0	14.4	1.4	0.8	0.4	0.2	100.0	749	0.0
65+	91.5	0.0	7.2	0.0	0.6	0.0	0.0	100.0	1,342	0.0
Residence										
Urban	22.8	1.4	44.0	6.4	19.9	4.0	1.3	100.0	4,602	2.8
Rural	36.3	1.1	51.5	3.8	6.7	0.3	0.0	100.0	24,515	0.8
Region										
Banteay Mean Chey	40.9	3.5	43.8	3.5	7.7	0.3	0.1	100.0	1,300	0.4
Kampong Cham	37.1	0.6	52.0	2.9	6.1	0.7	0.1	100.0	3,789	0.9
Kampong Chhnang	31.2	0.3	60.1	2.5	5.5	0.4	0.0	100.0	1,107	0.7
Kampong Spueu	48.5	2.1	42.3	2.6	4.2	0.3	0.0	100.0	1,552	-
Kampong Thum	32.5	0.5	57.4	3.3	5.9	0.4	0.0	100.0	1,483	0.9
Kandal	30.9	0.2	53.5	6.0	9.1	0.3	0.0	100.0	2,816	1.3
Kaoh Kong	44.2	0.1	47.2	2.9	4.5	0.5	0.1	100.0	273	0.0
Phnom Penh	14.2	3.0	41.7	7.7	26.0	4.9	2.3	100.0	2,737	4.0
Prey Veang	39.7	0.0	53.3	2.7	4.0	0.3	0.0	100.0	2,458	0.6
Pousat	40.4	0.3	50.1	3.1	5.8	0.2	0.1	100.0	864	0.1
Svay Rieng	30.4	1.0	57.4	4.3	6.6	0.3	0.0	100.0	1,311	1.4
Takaev	29.3	2.9	52.5	5.6	9.2	0.3	0.0	100.0	2,160	1.5
Bat Dambang/Krong Pailin	27.7	0.7	52.9	5.0	12.5	0.8	0.1	100.0	1,996	1.7
Kampot/Krong Kaeb/Krong Preah Sihanouk	30.4	1.9	54.7	4.0	8.1	0.7	0.0	100.0	1,970	1.2
Preah Vihear/Stueng Traeng/Kracheh	36.2	0.3	50.1	4.1	8.8	0.4	0.0	100.0	1,112	1.0
Mondol Kiri/Rotanak Kiri	75.1	0.4	18.8	1.8	3.5	0.1	0.0	100.0	300	0.0
Siem Reab/Otdar Mean Chey	48.4	0.0	41.9	3.8	4.9	0.9	0.0	100.0	1,890	-
Specific project areas										
CDCP	32.2	1.1	49.0	4.8	11.0	1.3	0.4	100.0	15,552	1.3
BHSP	34.7	0.9	53.9	3.5	6.2	0.5	0.0	100.0	10,825	1.0
Total	34.2	1.2	50.3	4.2	8.8	0.9	0.2	100.0	29,117	1.1

Note: Total includes women with missing information on level of education who are not shown separately.

¹ Completed grade 6 at the primary level

² Completed grade 12 at the secondary level

2.3.2 School attendance ratios

Data on net attendance ratios (NARs) and gross attendance ratios (GARs) by school level, sex, residence, and region are shown in Table 2.6. The NAR indicates participation in primary schooling for the population age 6-12 and secondary schooling for the population age 13-18. The GAR measures participation at each level of schooling among those age 5-24. The GAR is nearly 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.³ An NAR of 100 percent would indicate that all those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling.

Almost 68 percent of children who should be attending primary school are currently doing so at that level. At the same time, only 16 percent of secondary-school-age youths are in school at that level. There is little difference between the NAR of males and females at the primary level (69 percent and 67 percent, respectively). The NAR is higher among males than among females at the secondary level. Attendance ratios are lower in rural areas than in urban areas and are the lowest in the region of Mondol Kiri/Rotanak Kiri.

The GAR is higher among males than among females, at a rate of 97 and 87 percent, respectively, at the primary-school level, and at a rate of 26 and 14, respectively, at the secondary-school level, indicating higher attendance among males than among females. Although the overall GAR at the primary-school level is 92 percent, there are considerable levels of overage and/or underage participation in Kaoh Kong (104 percent) and Takaev provinces (101 percent).

The age-specific attendance rates (ASARs) for the population age five and over by sex are shown in Figure 2.2. The ASAR indicates participation in schooling at any level, from primary to higher levels of education. Although the minimum age for schooling in Cambodia is six, there are some children enrolled prior to this age. Nevertheless, less than one-third of children age six are attending school, indicating that the majority of children in Cambodia at that age have not entered the school system. There is little difference in the proportion of males and females attending school up to age 12, after which a significantly higher proportion of males than females attend school.

³ Students who are overage for a given level of schooling may have started school overage, may have repeated one or more grades in school, or may have dropped out of school and later returned.

Table 2.6 School attendance ratios

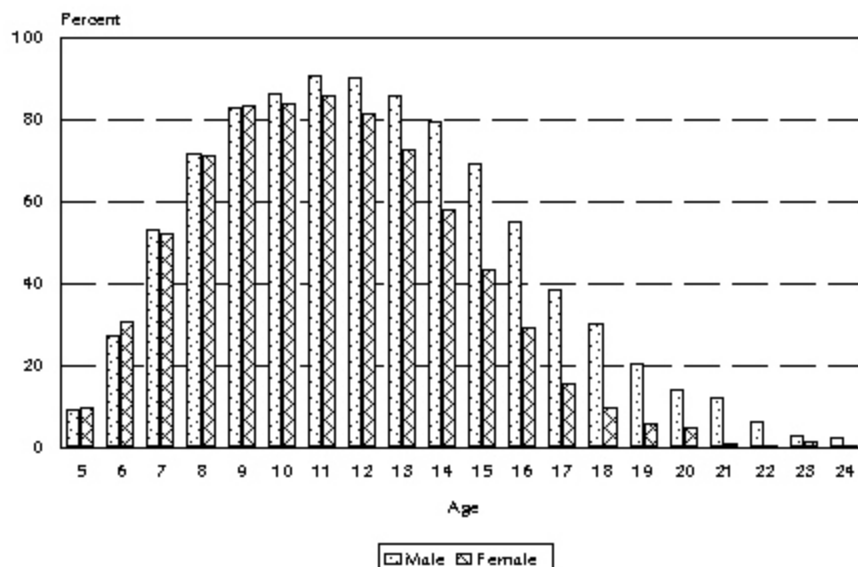
Net attendance ratios (NARs) and gross attendance ratios (GARs) for the de jure household population by level of schooling and sex, according to background characteristics, Cambodia 2000

Background characteristic	Net attendance ratio (NAR) ¹			Gross attendance ratio (GAR) ²		
	Male	Female	Total	Male	Female	Total
PRIMARY SCHOOL						
Residence						
Urban	75.1	72.9	74.1	97.7	94.3	96.1
Rural	67.6	65.6	66.6	97.1	85.8	91.4
Region						
Banteay Mean Chey	73.8	70.2	72.0	97.5	86.3	91.8
Kampong Cham	69.7	68.7	69.3	97.0	87.8	92.3
Kampong Chhnang	71.4	65.7	68.6	94.4	81.0	87.9
Kampong Spueu	61.8	59.6	60.7	88.5	75.4	82.1
Kampong Thum	67.3	65.9	66.6	98.9	83.3	90.8
Kandal	71.2	72.4	71.7	102.4	94.6	98.6
Kaoh Kong	55.3	51.8	53.6	79.7	66.0	73.2
Phnom Penh	83.4	82.9	83.1	109.2	99.6	104.4
Prey Veang	71.7	65.2	68.5	106.6	85.7	96.2
Pousat	57.3	51.8	54.6	84.2	71.1	77.9
Svay Rieng	71.5	68.5	70.0	105.5	90.5	98.0
Takaev	68.7	71.3	70.0	104.6	96.8	100.6
Bat Dambang/Krong Pailin	70.4	71.4	70.9	94.4	98.7	96.5
Kampot/Krong Kaeb/ Krong Preah Sihanouk	70.9	63.9	67.3	99.5	87.8	93.6
Preah Vihear/Stueng						
Traeng/Kracheh	59.6	55.8	57.7	80.6	77.2	78.9
Mondol Kiri/Rotanak Kiri	32.6	26.1	29.4	52.7	36.3	44.6
Siem Reab/Otdar						
Mean Chey	60.5	55.8	58.3	87.3	76.5	82.3
Total	68.7	66.5	67.6	97.1	86.9	92.0
SECONDARY SCHOOL						
Residence						
Urban	39.7	27.8	33.4	49.7	30.9	39.7
Rural	17.0	8.9	13.0	21.2	9.9	15.7
Region						
Banteay Mean Chey	17.1	13.9	15.5	20.1	15.1	17.6
Kampong Cham	17.5	9.0	13.4	22.0	9.4	16.0
Kampong Chhnang	11.5	7.5	9.5	14.9	8.1	11.4
Kampong Spueu	14.2	6.4	10.6	17.9	6.8	12.9
Kampong Thum	14.8	7.4	11.4	17.6	8.9	13.6
Kandal	19.8	13.8	16.9	26.6	15.8	21.4
Kaoh Kong	9.6	6.2	8.0	14.5	7.5	11.2
Phnom Penh	46.3	38.7	42.5	56.9	43.9	50.3
Prey Veang	21.0	5.1	13.4	26.9	5.5	16.6
Pousat	11.1	9.5	10.3	14.2	10.2	12.2
Svay Rieng	20.1	9.5	14.8	23.0	10.7	16.8
Takaev	23.4	8.6	16.2	30.8	9.9	20.6
Bat Dambang/Krong Pailin	21.7	12.0	16.5	26.8	13.2	19.5
Kampot/Krong Kaeb/ Krong Preah Sihanouk	25.9	10.1	17.4	30.7	10.6	19.9
Preah Vihear/Stueng						
Traeng/Kracheh	14.4	10.1	12.1	17.3	11.6	14.3
Mondol Kiri/Rotanak Kiri	7.6	6.7	7.1	10.3	7.2	8.7
Siem Reab/Otdar						
Mean Chey	8.2	7.5	7.9	10.5	8.1	9.3
Total	20.4	12.3	16.4	25.5	13.7	19.6

¹ The NAR for primary school is the percentage of the primary-school-age (6-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (13-18 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent.

² The GAR for primary school is the total number of primary school students, among those of any age, expressed as the percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students 5-24 years, expressed as the 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 percent.

Figure 2.2 Age-Specific Attendance Rates
 (Percentage of the De Facto Household Population Age 5-24 Years Attending School, by Age and Sex)



CDHS 2000

2.4 HOUSING CHARACTERISTICS

The type of water and sanitation facilities are important determinants of the health status of household members and particularly of children. Proper hygienic and sanitation practices can reduce exposure to and the seriousness of major childhood diseases such as diarrhea. The CDHS 2000 asked respondents about their household sources of drinking water, time taken to the nearest source, and sanitation facilities. In Cambodia, the source of drinking water can vary greatly between the dry season and the rainy season, so separate questions were asked for the different seasons. Households can also have more than one source of drinking water. To facilitate the interview, only the most common source of drinking water was recorded.

During the dry season, 5 percent of households have drinking water piped into their dwelling or plot, 22 percent of households fetch water from an open public well, 21 percent use a tube well (public or private), 27 percent use surface water (from rivers, streams, lakes, or ponds), and 5 percent purchase water from a tanker truck or water vendor (Table 2.7). Urban households are much more likely than rural households to have access to piped water within the house or plot: 33 percent of urban households have piped water, compared with less than 1 percent of rural households. Rural households are much more likely to use surface water for drinking than urban households. Thirty percent of rural households collect drinking water from lakes and rivers, compared with only 12 percent of urban households. Households that did not have drinking water within their own compound were also asked for the time taken to fetch water. Seventy-seven percent of all households (92 percent urban and 75 percent rural) take less than 15 minutes to fetch drinking water. The median time taken to access drinking water is 4.5 minutes.

Table 2.7 Drinking water and sanitation

Percent distribution of households by source of drinking water and sanitation facility, Cambodia 2000

Characteristic	Residence		Total
	Urban	Rural	
Source of drinking water (dry season)			
Piped into dwelling/yard/plot	33.0	0.7	5.4
Public tap	1.8	0.3	0.5
Open well in yard/plot	6.4	10.1	9.6
Open public well	11.2	24.1	22.2
Protected dug well in yard/plot	3.8	1.5	1.9
Protected public dug well	1.7	2.1	2.0
Tube/Piped well or bore hole in yard/plot	8.2	8.5	8.5
Tube/piped public well or bore hole	5.7	13.8	12.6
Spring	0.7	0.7	0.7
River/stream/pond/lake/dam	11.8	30.0	27.3
Rainwater	1.7	1.0	1.1
Tanker truck/water vendor	11.0	3.5	4.6
Bottled water	0.2	0.1	0.1
Other	2.9	3.5	3.4
Total	100.0	100.0	100.0
Source of drinking water (rainy season)			
Piped into dwelling/yard/plot	31.9	0.7	5.2
Public tap	1.5	0.3	0.5
Open well in yard/plot	5.5	9.8	9.2
Open public well	9.1	21.7	19.9
Protected dug well in yard/plot	2.9	1.2	1.5
Protected public dug well	1.3	2.0	1.9
Tube/Piped well or bore hole in yard/plot	7.3	8.3	8.2
Tube/piped public well or bore hole	3.6	11.2	10.1
Spring	0.5	0.8	0.7
River/stream/pond/lake/dam	8.2	24.0	21.6
Rainwater	19.7	14.9	15.6
Tanker truck/water vendor	6.2	1.7	2.3
Bottled water	0.1	0.1	0.1
Other	2.0	3.2	3.0
Total	100.0	100.0	100.0
Time to water source (dry season)			
<15 minutes	91.8	74.8	77.3
Median time to source (in minutes)	-	4.7	4.5
Time to water source (rainy season)			
<15 minutes	94.9	79.8	82.0
Median time to source (in minutes)	-	4.2	2.1
Sanitation facility			
Flush connected to sewer/with septic tank	33.8	1.7	6.4
Flush unconnected to sewer/without septic tank	17.3	5.6	7.3
Latrine connected to sewer/with septic tank	1.4	0.9	1.0
Traditional pit/latrine unconnected to sewer/without septic tank	7.4	5.7	6.0
Other	0.3	0.1	0.1
No facility/field	39.8	85.9	79.1
Total	100.0	100.0	100.0
Total	1,790	10,446	12,236

Note: Total includes households with missing information on drinking water and/or sanitation.

During the rainy season, 5 percent of households have drinking water piped into their dwelling or plot, 20 percent of households fetch water from an open public well, 18 percent use a tube well (public or private), 22 percent use surface water (from rivers, streams, lakes, or ponds), and 16 percent collect rainwater for drinking. In the rainy season, a significant percentage of both urban and rural households collect rainwater (20 percent and 15 percent, respectively). Households without drinking water in their compound were also asked for the time taken to fetch water. The median time taken to fetch drinking water in the rainy season is 2.1 minutes.

The majority of Cambodian households (79 percent) do not have a toilet facility. A small proportion (6 percent) have a flush toilet connected to a sewer or septic tank. Seven percent have a flush toilet not connected to a sewer or septic tank. Only 1 percent have pit latrines connected to a sewer or septic tank, and 6 percent have a latrine with no connection to a sewer or septic tank. In urban areas, 51 percent of households have access to a flush toilet (connected or unconnected to a sewer or septic tank), 9 percent use a latrine, and 40 percent have no facility. In the rural areas, 86 percent of households have no facilities.

The physical characteristics of households along with the water and sanitation conditions are important in assessing the general socioeconomic condition of the population. In the CDHS 2000, respondents to the household questionnaire were asked about access to electricity, main material of floors and roof, and the type of fuel used for cooking. The results are presented in Table 2.8.

Seventeen percent of households have electricity, but this varies widely by place of residence. Only 9 percent of households in rural areas have access to electricity, compared with 61 percent of urban households. The most common materials used for flooring in houses are wood planks (45 percent), followed by palm or bamboo (37 percent). Rural households are more likely to use palm or bamboo (41 percent) than urban households (11 percent). Urban houses more commonly have tiled floors (27 percent), compared with rural houses (2 percent). The most common materials for roofing are thatch/palm/bamboo/bark (41 percent), tiles/cement/concrete/fibrous cement (33 percent), and galvanized iron/aluminum (25 percent). Thatch/palm/bamboo/

Table 2.8 Housing characteristics

Percent distribution of households by background characteristics, according to residence, Cambodia 2000

Background characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	60.6	9.0	16.6
No	39.4	90.9	83.3
Total	100.0	100.0	100.0
Main floor material			
Earth/sand	7.6	9.3	9.0
Wood planks	45.9	44.7	44.9
Palm/bamboo	11.4	41.2	36.9
Parquet/polished wood	1.3	0.6	0.7
Ceramic tiles	27.2	1.5	5.2
Cement	6.2	2.0	2.6
Houseboat	0.1	0.2	0.2
Other	0.4	0.5	0.4
Total	100.0	100.0	100.0
Main roof material			
Thatch/palm/bamboo/bark	16.2	45.0	40.8
Plastic sheet/tent	0.5	0.3	0.3
Galvanized iron/aluminum	42.1	22.2	25.1
Tiles/cement/concrete/fibrous	40.8	32.2	33.4
Other	0.5	0.2	0.2
Total	100.0	100.0	100.0
Type of cooking fuel			
Electricity	0.2	0.1	0.1
LPG/natural gas	16.0	1.0	3.1
Kerosene	1.8	0.2	0.5
Charcoal	23.8	3.6	6.6
Firewood/straw	58.2	95.0	89.6
Other	0.1	0.1	0.1
Total	100.0	100.0	100.0
Total	1,790	10,446	12,236

Note: Total includes households with missing information on housing characteristics.

bark roofs are three times more common on rural houses than on urban houses, while galvanized iron/aluminum roofs are twice as common in urban areas as they are in rural areas. The most common type of cooking fuel is firewood or straw: 90 percent of all households report its use. However, there are significant urban-rural differences: whereas urban households most commonly use firewood (58 percent), they also report use of charcoal (24 percent) and LPG (liquid propane gas)/natural gas (16 percent). Ninety-five percent of rural households use firewood or straw for cooking.

2.5 HOUSEHOLD POSSESSIONS

Information on ownership of durable goods and other possessions is presented in Table 2.9. Forty-two percent of all households have a radio, 33 percent claim ownership of a television, 21 percent have a wardrobe, and 8 percent have a sewing machine or loom. In general, households in rural Cambodia are less likely to possess consumer items like radios, televisions, wardrobes, or sewing machines or looms. Telephones and cellular phones are common in the urban areas. Seventeen percent of urban households own a telephone or cell phone, whereas only 1 percent of rural households report ownership of a telephone or cell phone.

The survey also collected information on means of transport (for humans as well as for goods) available to households. More than half of all households in Cambodia report ownership of a bicycle. More than one-quarter own an oxcart, and less than one-quarter own a motorcycle or scooter. Motorcycles and scooters are more commonly owned by households in the urban areas (50 percent) than in the rural areas (19 percent). Cars, trucks, or vans are also owned more often by urban households (10 percent) than rural households (1 percent).

2.6 IODIZED SALT

Iodine deficiency is known to cause goiter, cretinism (a severe form of a neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. One of the most serious consequences to child development is mental retardation caused by iodine deficiency disorders (IDDs), putting at stake social investments in health and education. IDD is the single most common cause of preventable mental retardation and brain damage in the world. The remedy for IDD is relatively simple. A teaspoon of iodine is all a person requires in a lifetime. Since iodine cannot be stored for long periods by the body, tiny amounts are needed regularly. In areas of endemic iodine deficiency, where soil and therefore crops and grazing animals do not provide sufficient dietary iodine to the population, food fortification and supplementation have proven highly successful and sustainable interventions. The fortification of salt with iodine is the most common tool to prevent IDD.

Table 2.9 Household durable goods

Percentage of households possessing various durable consumer goods and means of transport, by residence, Cambodia 2000

Durable consumer goods	Residence		Total
	Urban	Rural	
Household possessions			
Wardrobe	56.5	15.2	21.2
Sewing machine/loom	20.3	5.4	7.6
Radio/tape recorder	61.2	39.0	42.2
Television	57.9	28.2	32.5
Telephone/cell phone	17.0	1.3	3.6
Refrigerator	10.3	0.4	1.8
Means of transport			
Bicycle/cyclo	49.8	53.0	52.5
Motorcycle/scooter	49.8	18.6	23.1
Car/truck/van	10.2	1.0	2.3
Boat with motor	3.9	3.5	3.6
Boat without motor	3.4	5.6	5.3
Oxcart	10.5	30.0	27.1
None of the above	11.6	18.4	17.4
Number of households	1,790	10,446	12,236

A teaspoon of cooking salt was measured in each survey household. With a small test kit, the iodization of the salt was assessed. Only 14 percent of all households have adequately iodized salt (Table 2.10). Iodized salt is more common in urban households than in rural households (28 percent and 11 percent, respectively). The province with the lowest percentage of households with iodized salt is Kampong Spueu (3 percent). This province is situated next to the capital city, so the reasons for lack of fortified salt are not due to its location. The region with the highest percentage of households with iodized salt is Mondol Kiri/Rotanak Kiri (76 percent). These two remote provinces obtain their salt from Vietnam where iodized salt is common.

Table 2.10 Iodized salt

Percent distribution of households by whether salt was tested for iodine content and by level of iodine content of salt, according to urban-rural residence and region, Cambodia 2000

Residence and region	Iodized salt	No iodized salt	Not tested/ no salt	Missing	Total	Number of households
Residence						
Urban	28.0	70.8	0.8	0.4	100.0	1,790
Rural	11.3	87.6	0.3	0.7	100.0	10,446
Region						
Banteay Mean Chey	3.9	94.7	0.3	1.1	100.0	581
Kampong Cham	7.2	90.4	0.1	2.2	100.0	1,724
Kampong Chhnang	6.3	93.5	0.1	0.1	100.0	477
Kampong Spueu	2.7	96.6	0.1	0.6	100.0	671
Kampong Thum	4.2	95.8	0.0	0.0	100.0	621
Kandal	9.6	90.4	0.0	0.0	100.0	1,146
Kaoh Kong	4.8	95.1	0.1	0.0	100.0	130
Phnom Penh	45.9	52.6	1.4	0.1	100.0	993
Prey Veang	12.6	86.6	0.7	0.1	100.0	1,090
Pousat	8.4	88.9	2.3	0.3	100.0	364
Svay Rieng	36.7	61.2	0.8	1.3	100.0	566
Takaev	11.5	87.3	0.8	0.4	100.0	898
Bat Dambang/Krong Pailin	6.8	92.9	0.3	0.0	100.0	819
Kampot/Krong Kaeb/ Krong Preah Sihanouk	10.3	88.4	0.0	1.3	100.0	794
Preah Vihear/Stueng	28.8	70.7	0.1	0.3	100.0	467
Traeng/Kracheh	75.6	24.1	0.1	0.1	100.0	127
Mondol Kiri/Rotanak Kiri	75.6	24.1	0.1	0.1	100.0	127
Siem Reab/Otdar Mean Chey	5.7	93.9	0.1	0.3	100.0	769
Total	13.8	85.2	0.4	0.6	100.0	12,236

When the NHS 1998 survey was undertaken, the Ministry of Health was beginning to implement a redesigned Health Coverage Plan created to improve the accessibility and quality of government health services. The major points of the new health care plan were to create a network of health centers throughout the country delivering the “Minimum Package of Activities” services. The data collected in the NHS 1998 survey was considered to be a baseline of health conditions in the country before implementation of the new health coverage plan. The CDHS 2000 survey can be used to provide a first-round analysis of health care delivery under the new plan.

Utilization of health services was assessed in the Household Questionnaire. The questions were asked of all households in the sample. First, information was collected to assess the prevalence of injuries and deaths due to accidents in the past year. Second, the informant was asked whether any household members suffered from any physical impairments. Third, inquiry was made of the severity of illness or injury and the subsequent utilization of health services for all members of the household who had been ill or injured in the 30 days prior to the interview.

3.1 ACCIDENTAL DEATH OR INJURY

The respondent in all households was asked whether any household members had suffered accidental injuries or deaths in the past 12 months. If anyone was injured, the cause of the injury was recorded. The respondent was asked whether the victim was alive or dead, and if dead, whether the accident was the cause of death. The questions were designed in this order to definitively assess the cause of injury and the cause of death, if a death was noted.

Frequency of accidental death or injury

The frequency of injuries and deaths among the Cambodian population is not high (Table 3.1). A total of slightly less than 1 percent of the population had suffered an injury or death by accident in the past 12 months. Accidental injuries were almost four times more common than accidental deaths but were found in less than three-quarters of 1 percent of the population. This is the equivalent of 7 persons injured out of 1,000. Accidental deaths were found in less than one-quarter of one percent of the population, or 2 persons out of 1,000.

The percentage of the population injured in the past 12 months increases with age. For children to young adults (from birth to 19 years), 0.6 percent were injured. The percentage increased with age: 1.1 percent of those 40-59 years old were found to be injured. Similar trends were found in accidental deaths. Only 0.1 percent or 1 out of 1,000 children less than 9 years of age died in an accident, whereas 6 out of 1,000 adults over 60 years of age had died in an accident.

Men were twice as likely to be injured in an accident as women. One percent of the male population was injured in an accident in the past 12 months, compared with only 0.5 percent of women. Despite the large differences of accidental injuries by sex, men and women perished in accidents at an equal rate. There were no differences in accidental injuries or deaths by urban-rural residence. There were strong differences found by region. The highest percentage of accidental

Table 3.1 Injury or death in an accident

Percentage of the de facto household population injured or killed in an accident in the past 12 months, according to background characteristics, Cambodia 2000

Background characteristic	Result of accident			Number of household members
	Injured	Killed	Total injured or killed	
Age group				
0-9	0.6	0.1	0.7	17,576
10-19	0.6	0.1	0.7	17,552
20-39	0.8	0.2	1.0	16,394
40-59	1.1	0.2	1.3	9,123
60+	0.8	0.6	1.4	3,631
Sex				
Male	1.0	0.2	1.2	30,772
Female	0.5	0.2	0.7	33,502
Residence				
Urban	0.7	0.2	0.9	9,903
Rural	0.7	0.2	0.9	54,373
Region				
Banteay Mean Chey	0.4	0.3	0.7	2,989
Kampong Cham	0.6	0.4	1.0	8,467
Kampong Chhnang	0.6	0.4	1.0	2,462
Kampong Spueu	0.5	0.0	0.5	3,516
Kampong Thum	0.8	0.1	0.9	3,259
Kandal	1.7	0.1	1.8	6,245
Kaoh Kong	0.8	0.1	0.9	648
Phnom Penh	0.9	0.1	1.0	5,615
Prey Veang	0.1	0.1	0.3	5,348
Pousat	0.9	0.1	1.0	1,920
Svay Rieng	0.5	0.2	0.7	2,809
Takaev	0.4	0.2	0.5	4,670
Bat Dambang/Krong Pailin	0.9	0.1	1.0	4,475
Kampot/Krong Kaeb/ Krong Preah Sihanouk	0.9	0.1	1.0	4,215
Preah Vihear/Stueng				
Traeng/Kracheh	0.2	0.2	0.4	2,539
Mondol Kiri/Rotanak Kiri	0.4	0.0	0.4	714
Siem Reab/Otdar				
Mean Chey	1.2	0.3	1.5	4,387
Total	0.7	0.2	0.9	64,276

injury was found in Kandal Province (1.7 percent). The lowest percentage of accidental injury was found in Prey Veang province (0.1 percent). The provinces with the highest percentages of accidental death were Kampong Cham and Kampong Chhnang (0.4 percent). The lowest percentages of accidental death were found in Kampong Spueu and Mondol Kiri/Rotanak Kiri (less than 0.1 percent).

Type of accident

Originally, the question about the type of accident was meant to assess the impact of landmines on the population. Due to the great increase in use of motorized vehicles and motor accidents in Cambodia in recent years, data on prevalence of road accidents was also requested. To collect this information, a list of the most common accidents was made and integrated into the question. The question was field-tested and found to be effective. However, in the final results, the response “other” was found to be one of the most common answers, indicating most likely that there are types of accidents that were not included in the list of potential responses.

The most widespread cause of accidental injury or death was that of road accident (33 percent) (Table 3.2). The second most common cause of accidents was a fall from a building or tree (13 percent). Landmine accidents (3 percent) were less common than accidents with guns (5 percent) and snake or animal bites (5 percent). Drowning accounted for the same percentage of injuries and deaths as landmines (3 percent).

There were significant differences in accidental injuries and deaths in the last 12 months by age. Landmines injured or killed the most economically active population. Those age 20-39 (6 percent) were injured or killed three times as often as younger Cambodians age 0-19 (2 percent). Gunshot injuries and deaths affected those 10-39 years of age to the greatest extent (6 percent).

Table 3.2 Injury and death in an accident by type of accident

Percent distribution of the de facto household population who were injured or killed in an accident in the past 12 months by type of accident, according to background characteristics, Cambodia 2000

Background characteristic	Type of accident										Total	Number of persons injured/killed
	Landmine/unexploded bomb	Gunshot	Road accident	Severe burning	Snake/animal bite	Fall from tree/building	Drowning	Poisoning (chemical)	Other	Don't know		
Age group												
0-9	2.0	1.1	29.3	5.4	9.2	19.4	4.9	1.3	26.6	0.8	100.0	116
10-19	1.6	6.6	33.0	2.7	4.8	17.8	0.9	2.2	28.9	1.5	100.0	123
20-39	6.4	6.3	39.7	0.8	3.2	8.7	2.4	3.0	29.1	0.5	100.0	161
40-59	0.9	3.9	40.0	0.8	7.0	9.4	0.4	1.0	35.4	1.2	100.0	117
60+	4.5	4.1	22.4	0.0	0.9	16.1	4.1	2.1	41.4	4.4	100.0	52
Sex												
Male	4.1	5.7	27.9	1.9	5.0	14.7	3.8	1.5	34.3	1.0	100.0	373
Female	1.1	3.8	42.2	2.5	5.3	10.3	1.3	2.6	27.0	3.8	100.0	220
Residence												
Urban	1.6	6.9	40.9	1.1	3.5	8.4	1.0	1.8	34.4	0.4	100.0	88
Rural	3.3	4.7	31.9	2.3	5.4	13.9	3.2	1.9	31.1	2.3	100.0	505
Region												
Banteay Mean Chey	*	*	*	*	*	*	*	*	*	*	*	22
Kampong Cham	(0.0)	(2.9)	(17.1)	(2.8)	(2.8)	(19.9)	(2.9)	(0.0)	(45.8)	(5.7)	100.0	85
Kampong Chhnang	(0.0)	(4.3)	(32.3)	(0.0)	(6.5)	(9.7)	(0.0)	(0.0)	(44.6)	(2.7)	100.0	25
Kampong Spueu	*	*	*	*	*	*	*	*	*	*	*	16
Kampong Thum	(0.0)	(6.1)	(15.1)	(3.0)	(3.0)	(24.1)	(0.0)	(0.0)	(48.8)	(0.0)	100.0	28
Kandal	0.0	0.0	61.6	0.0	2.8	4.3	1.4	2.9	27.0	0.0	100.0	113
Kaoh Kong	(3.2)	(11.4)	(54.1)	(3.2)	(3.2)	(6.5)	(0.0)	(0.0)	(16.2)	(2.3)	100.0	6
Phnom Penh	(0.0)	(8.2)	(61.9)	(0.0)	(2.4)	(7.8)	(0.0)	(2.8)	(16.8)	(0.0)	100.0	55
Prey Veang	*	*	*	*	*	*	*	*	*	*	*	14
Pousat	(0.0)	(4.2)	(34.1)	(8.6)	(4.2)	(7.1)	(2.3)	(0.0)	(28.4)	(11.1)	100.0	20
Svay Rieng	*	*	*	*	*	*	*	*	*	*	*	19
Takaev	*	*	*	*	*	*	*	*	*	*	*	24
Bat Dambang/Krong Pailin	(10.6)	(0.0)	(27.4)	(0.0)	(7.9)	(18.4)	(8.0)	(0.0)	(27.7)	(0.0)	100.0	46
Kampot/Krong Kaeb/Krong Preah Sihanouk	(0.0)	(8.2)	(34.7)	(2.5)	(7.9)	(13.0)	(2.5)	(0.0)	(31.1)	(0.0)	100.0	43
Preah Vihear/Stueng Traeng/Kracheh	*	*	*	*	*	*	*	*	*	*	*	10
Mondol Kiri/Rotanak Kiri	*	*	*	*	*	*	*	*	*	*	*	3
Siem Reab/Otdar Mean Chey	(13.3)	(9.9)	(6.5)	(7.0)	(14.2)	(25.5)	(1.7)	(4.0)	(17.9)	(0.0)	100.0	65
Total	3.0	5.0	33.2	2.1	5.1	13.1	2.9	1.9	31.6	2.0	100.0	593

Note: Total includes 25 persons for whom information on age is not available. Figures in parentheses are based on 25-49 unweighted

Road accidents were the most common among the population age 20-59 (40 percent). Falls from trees or buildings followed a different pattern. The population most affected by falls were the youngest and the oldest. The 0- to 9-year-olds, the 10- to 19-year-olds, and those age 60 and older were injured or killed by falls most frequently (19 percent, 18 percent, and 16 percent, respectively).

There were other significant differences in accidental injuries and deaths in the last 12 months by sex, urban-rural residence, and region. Men were almost four times as likely to be injured or killed by landmines (4 percent) as women (1 percent). Men were only slightly more likely than women to be involved in an injury or death by gunshot (6 percent compared with 4 percent, respectively). Road accidents were a more common type of accident among women than among men: road accidents made up 42 percent of accidents among women, whereas they constituted only 28 percent of accidents in men. It is important to note at this point that almost twice as many men were injured or killed in the past 12 months (373 cases) as women (220 cases). Landmine accidents were slightly more common in rural areas (3 percent) than in urban areas (2 percent). Road accidents were much more common in the urban areas (41 percent) than in rural areas (32 percent). Urban areas also had more accidents from falling than rural areas. This can be expected because large building construction is much more common in urban areas than rural areas. Fourteen percent of urban persons were injured or killed in falls, compared with only 8 percent of the rural population. Differences are evident in injuries and deaths by region but the sample sizes are too small to make any legitimate observations. The only region with more than 49 unweighted cases of injuries or deaths was Kandal Province. It is interesting to note that almost 20 percent of all accidental injuries or deaths in the country occurred in Kandal Province. Kandal Province is represented by a largely urban population living immediately outside of Phnom Penh. The busiest roads in Cambodia lead from the edges of Phnom Penh past numerous factories into Kandal Province. This helps to explain why the majority of injuries and deaths in Kandal Province were road accidents (62 percent).

3.2 PHYSICAL IMPAIRMENT

Following the section on accidental injuries and deaths were questions on physical impairment. These questions inquired as to whether any living household members were physically impaired, and if so, what caused the impairment. In Cambodia, almost 2 percent of the population has a physical impairment (Table 3.3). Physical impairments increase with age: the population older than 60 years of age is more likely to have physical impairments (4 percent) than those 10-19 years old (1 percent). Men are twice as likely (2 percent) to be impaired physically as women (1 percent). There is no difference in physical impairments by urban-rural residence, although there are regional differences. The areas with the highest percentage of the population with physical impairments are Kampong Chhnang and Bat Dambang/Krong Pailin (3 percent each). The areas with the lowest prevalence of physical impairments are Prey Veang (0.5 percent) and Mondol Kiri/Rotanak Kiri (0.6 percent).

Table 3.3 Physical impairment

Percentage of the de facto household population physically impaired and percent distribution of the impaired de facto household population by cause of impairment, according to background characteristics, Cambodia 2000

Background characteristic	Physically impaired	Number of household members	Cause of impairment						Total	Number of impaired persons
			Birth	Illness	Land-mine	Gun	Road accident	Other accident		
Age group										
0-9	0.6	17,576	51.4	32.0	0.0	2.2	0.5	13.9	100.0	109
10-19	1.0	17,552	29.7	41.8	3.2	2.3	3.9	19.0	100.0	179
20-39	1.9	16,394	16.7	27.6	24.9	13.1	3.3	14.4	100.0	313
40-59	3.1	9,123	6.8	32.6	19.5	20.5	4.3	16.3	100.0	286
60+	4.0	3,631	5.8	63.1	5.5	2.2	3.8	19.6	100.0	146
Sex										
Male	2.2	30,772	14.9	31.8	19.5	14.3	3.9	15.6	100.0	668
Female	1.1	33,502	24.7	46.3	4.6	3.8	2.7	18.0	100.0	364
Residence										
Urban	1.9	9,903	12.1	48.2	8.9	14.0	4.2	12.6	100.0	186
Rural	1.6	54,373	19.7	34.5	15.4	9.8	3.3	17.3	100.0	846
Region										
Banteay Mean Chey	1.6	2,989	22.5	18.2	20.7	12.9	7.4	18.4	100.0	49
Kampong Cham	1.4	8,467	17.9	48.3	5.9	9.9	0.0	17.9	100.0	122
Kampong Chhnang	3.2	2,462	7.2	32.6	9.7	23.3	5.2	21.9	100.0	79
Kampong Spueu	1.8	3,516	21.3	18.4	21.1	15.1	6.1	18.0	100.0	62
Kampong Thum	1.1	3,259	(18.6)	(37.1)	(18.7)	(9.3)	(2.3)	(13.9)	100.0	37
Kandal	1.6	6,245	19.8	46.4	6.6	7.1	6.6	13.5	100.0	97
Kaoh Kong	0.8	648	(27.9)	(23.0)	(0.0)	(4.0)	(26.4)	(18.7)	100.0	5
Phnom Penh	2.0	5,615	13.0	53.8	5.3	15.0	5.3	7.6	100.0	111
Prey Veaeang	0.5	5,348	*	*	*	*	*	*	*	27
Pousat	2.1	1,920	15.5	33.0	20.6	8.8	4.5	17.6	100.0	40
Svay Rieng	2.2	2,809	25.2	21.5	15.2	7.5	1.7	28.9	100.0	60
Takaev	0.8	4,670	(12.5)	(56.4)	(6.2)	(0.0)	(3.1)	(21.8)	100.0	37
Bat Dambang/Krong Pailin	2.7	4,475	17.3	32.9	31.2	5.3	3.1	10.1	100.0	123
Kampot/Krong Kaeb/Krong Preah Sihanouk	1.7	4,215	16.3	41.0	15.5	9.4	0.0	17.8	100.0	73
Preah Vihear/Stueng	0.9	2,539	(15.2)	(44.9)	(12.8)	(12.5)	(2.5)	(12.1)	100.0	23
Traeng/Kracheh	0.6	714	*	*	*	*	*	*	*	4
Mondol Kiri/Rotanak Kiri	0.6	714	*	*	*	*	*	*	*	4
Siem Reab/Otdar	1.9	4,387	26.2	19.7	19.1	13.9	1.3	19.8	100.0	83
Mean Chey	1.9	4,387	26.2	19.7	19.1	13.9	1.3	19.8	100.0	83
Total	1.6	64,276	18.3	36.9	14.3	10.6	3.5	16.4	100.0	1,032

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.

The largest cause of physical impairments in Cambodia stems from disease (37 percent). These impairments are largely caused by poliomyelitis and other debilitating illnesses. The second most common cause of impairments is birth defects (18 percent). The remaining common causes of impairments are other accidents (16 percent), landmines (14 percent), and guns (11 percent).

The causes of impairments are analyzed by age, sex, residence, and region. The cause of impairment varies significantly by age. Impairments experienced from the time of birth are much more common for the young population of 0-9 years (51 percent) than for the older population of 60 years or more (6 percent). This change in distribution may be due to the increasing risk of exposure to other forms of physical impairment, such as accidents, as age increases. The percentage of the population impaired due to illness increases with age: 63 percent of the oldest population (60 years or more) claimed to be impaired by disease, while only 32 percent of the youngest population

(0-9 years) were recorded as impaired by illness. Landmines mostly affected the 20-39 and the 40-59 age groups. This might be explained by the fact that they most likely have lived through the time of war when landmines were in common use. Impairments by gunshots follow the same pattern, perhaps for the same reasons. Impairments by road accidents and other accidents do not vary as greatly by age as the other causes.

The cause of impairment varies by sex, residence, and region. As for gender differences, there are almost twice as many cases of men being impaired as women. It appears that the difference between males and females is due primarily to exposure to landmines and gunshot accidents. Males are more than four times as likely to be impaired by a landmine (20 percent) as females (5 percent). Males are also almost four times more likely to be impaired by a gunshot (14 percent), compared with women (4 percent). By urban-rural residence, there are more impairments experienced from the time of birth in rural areas (20 percent) than in urban areas (12 percent). This contrasts with the finding that there are more impairments by illness in urban areas (48 percent) than in rural areas (35 percent). Persons impaired by landmine injuries are more common in rural areas (15 percent) than in urban areas (9 percent), whereas persons impaired by gunshot injuries are more common in urban areas (14 percent) than in rural areas (10 percent). Analysis of the causes of physical impairment by region is complicated by the fact that two regions have an insufficient number of cases, and four other regions have such a small number of cases that one must interpret the results with caution.

3.3 PREVALENCE AND SEVERITY OF ILLNESS OR INJURY

All households were asked whether any members were sick or injured at any time in the 30 days before the interview. If any members were sick, their names were recorded in order to ask specifically about their conditions in the questions that followed. The Household Questionnaire allotted space for information to be recorded for three household members, but the interviewers were instructed to use extra household questionnaires to record the information on all household members who were ill or injured. The respondent was asked to judge the illness or injury as slight, moderate, or severe. Then questions were asked as to whether the ill or injured household members sought care, where they sought care, how much they spent on transport, and how much altogether was spent on treatment. These questions were repeated for each incident of health-care-seeking behavior in order to determine whether there are specific patterns of health-care-seeking behavior. For example, a man might first seek treatment from a Kru Khmer traditional healer; should the illness continue, he might then go to a more formal health clinic. Only three health-care-seeking attempts were recorded in the questionnaire for each ill or injured person.

Ten percent of household members were ill in the 30 days prior to the interview (Table 3.4). This percentage may underrepresent the actual prevalence of morbidity and injury for two reasons. First, the questions were asked only about living household members at the time of the interview; thus, the recorded episodes of illness and injury exclude any cases that ended in death of a household member in the 30 days prior to the interview. Second, the responses are based on the 30-day recall of one respondent in the household. That respondent might not have been aware of all the illnesses or injuries that had occurred within the household. It is likely that illnesses or injuries that occurred at the beginning of the 30-day period or those that were of mild severity were forgotten and not reported.

Table 3.4 Prevalence and severity of illness or injury in previous 30 days

Percent distribution of the de facto household population ill or injured in the previous 30 days by severity of illness or injury, according to background characteristics, Cambodia 2000

Background characteristic	Not ill or injured	Severity of illness or injury			Total	Number of household members
		Slight	Moderate	Serious		
Age group						
0-9	88.1	5.9	5.0	0.9	100.0	17,576
10-19	95.6	1.7	2.2	0.5	100.0	17,552
20-39	91.6	2.8	4.4	1.2	100.0	16,394
40-59	86.3	4.7	7.2	1.8	100.0	9,123
60+	83.3	4.8	9.6	2.3	100.0	3,631
Sex						
Male	91.5	3.2	4.2	1.0	100.0	30,772
Female	89.6	4.2	5.1	1.1	100.0	33,502
Residence						
Urban	92.4	3.4	3.2	1.0	100.0	9,903
Rural	90.2	3.8	4.9	1.1	100.0	54,373
Region						
Banteay Mean Chey	96.4	0.3	2.4	0.8	100.0	2,989
Kampong Cham	92.0	2.5	4.2	1.2	100.0	8,467
Kampong Chhnang	78.8	10.1	9.7	1.5	100.0	2,462
Kampong Spueu	93.5	0.8	4.9	0.8	100.0	3,516
Kampong Thum	82.8	8.3	7.4	1.5	100.0	3,259
Kandal	81.8	9.1	8.2	1.0	100.0	6,245
Kaoh Kong	92.7	1.7	3.9	1.7	100.0	648
Phnom Penh	95.2	2.2	2.1	0.5	100.0	5,615
Prey Veaeng	98.2	0.3	1.0	0.4	100.0	5,348
Pousat	84.4	4.5	9.6	1.5	100.0	1,920
Svay Rieng	89.5	4.7	4.9	0.8	100.0	2,809
Takaev	94.7	1.0	3.4	1.0	100.0	4,670
Bat Dambang/Krong Pailin	87.2	8.2	3.7	0.9	100.0	4,475
Kampot/Krong Kaeb/ Krong Preah Sihanouk	94.4	0.8	3.0	1.9	100.0	4,215
Preah Vihear/Stueng Traeng/Kracheh	94.9	2.1	2.5	0.5	100.0	2,539
Mondol Kiri/Rotanak Kiri	98.0	0.0	0.5	1.5	100.0	714
Siem Reab/Otdar Mean Chey	85.0	4.4	8.4	2.2	100.0	4,387
Total	90.5	3.7	4.7	1.1	100.0	64,276

Considering these factors that may cause an underestimation and assuming the reported prevalence to represent an average month, the annual number of illnesses or injuries per person per year would be about 1.1 episodes. This number is an estimation limited both by the factors mentioned above and the fact that it is an annual projection based on the month that preceded the interview. This survey took place between February and July, so the data collected only represents half of the year. The fieldwork occurred during the dry season and the beginning of the rainy season, so it does not represent the conditions that could arise in the rainy season.

Nine-tenths of all illnesses or injuries were slight or moderate in severity. Only 1 percent of the household members experienced serious illness or injury. The oldest and the youngest age groups of the population suffered the most illnesses and injuries. The highest percentages of illness or injury were found among those 60 years old and higher (16 percent) and among those 40-59 years old (14 percent). This was closely followed by the 0-9 year-olds (12 percent). The oldest age group suffered the most moderate illnesses or injuries (10 percent) and the most serious illnesses or injuries (2 percent). There were few differences found by sex of household member or urban-rural residence. The regions with the highest percentage of illness or injury were Kampong

Chhnang (21 percent) and Kandal (18 percent). The regions with the lowest percentage of illness or injury were Prey Veang and Mondol Kiri/Rotanak Kiri (2 percent).

3.4 TREATMENT SOUGHT FOR ILLNESS OR INJURY

Questions on health-care-seeking behavior were used in the NHS 1998 survey. In that survey, only the highest level of treatment was recorded in the case of multiple treatments. The questions on the CDHS 2000 survey were redesigned in order to collect more information on health-care-seeking behavior. The questions collected information on the first three treatments received. Table 3.5 represents the percentage of the ill or injured population who sought treatment once, twice, and three times or more. The type of treatment recorded in these questions included, but was not limited to, care given by medically trained professionals. For example, if a sick child was first given a remedy by a Kru Khmer traditional healer, that is recorded as the first treatment. If the parents note the child is still ill, and go to a shop selling drugs in the market, that is recorded as the second treatment. If the drugs do not work and the child is still ill, the parents might take the child to a doctor at a private clinic, in which case the private clinic is recorded as the third treatment.

In the CDHS 2000, 89 percent of household members who were ill sought at least one treatment (Table 3.5). This is slightly higher than the percentage of ill or injured household members who sought at least one treatment in the NHS 1998 (86 percent). In the CDHS 2000, 22 percent of those ill or injured sought at least two treatments, and 7 percent sought at least three treatments. There was no difference in health-care-seeking behavior by sex or age of the person ill or injured.

Significant differences are noted considering the percentages of those seeking treatments by severity of illness or injury, urban-rural residence, and region. There is a positive relationship between the severity of illness or injury and the likelihood of seeking treatment. Household members with illness or injury considered serious were more likely to go for treatment than those with slight illness or injury (98 percent versus 84 percent for the first treatment). Rural residents who were ill or injured were slightly less likely to seek a first treatment (88 percent) than urban residents (94 percent). The provinces with the highest percentage of ill or injured seeking first treatment were Kampong Spueu and Kampong Thum (99 percent each). The province with the lowest percentage of ill or injured seeking first treatment was Banteay Mean Chey (65 percent). Phnom Penh had the highest percentage of ill or injured seeking second and third treatments (50 percent and 32 percent, respectively). The access to health care in Phnom Penh appears to facilitate health-care-seeking behavior. The two provinces with the lowest percentage of ill or injured seeking a third treatment were Kampong Thum and Kandal (1 percent each).

Table 3.5 Percentage of ill or injured population who sought treatment

Percentage of household members who were ill or injured in the past 30 days who sought a first, second, and a third treatment, according to background characteristics, Cambodia 2000

Background characteristic	Treatment for illness or injury			Number of household members
	First treatment	Second treatment	Third treatment	
Severity of illness or injury				
Slight	84.0	15.7	5.1	2,404
Moderate	90.1	23.0	7.8	3,001
Serious	98.4	37.9	13.4	695
Age group				
0-9	90.8	19.8	5.9	2,086
10-19	87.9	19.3	6.6	780
20-39	88.6	22.5	8.8	1,382
40-59	86.0	25.9	9.2	1,249
60+	87.7	21.7	6.4	606
Sex				
Male	89.2	21.5	7.0	2,608
Female	88.2	22.0	7.6	3,496
Residence				
Urban	94.0	25.7	10.3	751
Rural	87.9	21.2	6.9	5,352
Region				
Banteay Mean Chey	65.2	11.2	2.5	106
Kampong Cham	79.9	26.7	10.2	673
Kampong Chhnang	92.1	25.6	11.7	523
Kampong Spueu	99.2	15.7	2.6	229
Kampong Thum	98.5	10.3	1.2	561
Kandal	81.0	12.6	1.4	1,140
Kaoh Kong	91.5	27.4	8.7	47
Phnom Penh	94.3	49.9	32.4	271
Prey Veang	88.7	20.9	8.1	94
Pousat	94.8	24.3	5.2	300
Svay Rieng	89.7	28.3	12.0	295
Takaev	86.6	20.0	2.8	248
Bat Dambang/Krong Pailin	91.1	19.4	3.5	572
Kampot/Krong Kaeb/ Krong Preah Sihanouk	91.8	29.9	9.5	238
Preah Vihear/Stueng				
Traeng/Kracheh	88.0	18.7	3.0	130
Mondol Kiri/Rotanak Kiri	87.9	34.4	13.5	14
Siem Reab/Otdar Mean Chey	91.7	27.2	12.3	661
Total	88.6	21.8	7.4	6,104

Note: Total includes 4 persons for whom information on severity of illness is not available.

3.5 UTILIZATION OF HEALTH CARE FACILITIES

Information on the sector and location of the health care provider was collected in order to trace where those who were ill or injured went for treatment. All considerable public-sector, private-sector and nonmedical-sector health care provider options were provided. Descriptions of the distinctions between the different types of hospitals, clinics, pharmacies, and drug sellers were given to the interviewers. If there were difficulties distinguishing the type of health care provider, the field editor or team supervisor with local knowledge was referred to for exact specification.

Figure 3.1 Percentage of Household Members Ill or Injured Seeking Treatment by Order of Treatment and Sector of Health Care

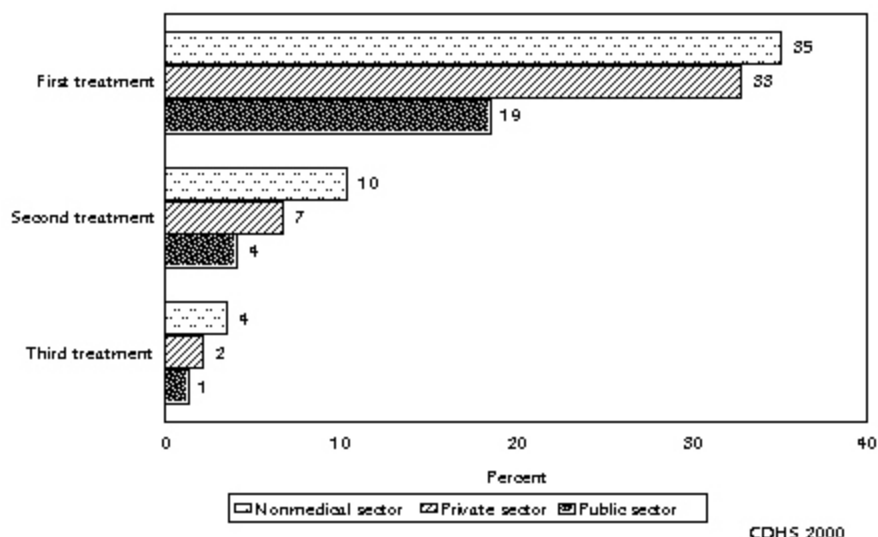


Figure 3.1 presents the percentages of ill or injured household members who sought treatment by the number of treatments and the sector where they went for treatment. The trend that appears from the first through the third treatment is that the nonmedical sector is the most popular sector for health care. The private sector is the second most popular, followed by the public sector. For the first treatment and only treatment for most of the ill or injured population, the nonmedical sector (35 percent) and the private sector (33 percent) were the most common for treatment. The public sector was slightly more than half as common for the source of first treatment (19 percent). For the third treatment, the nonmedical sector was the most common source of treatment (4 percent). The private sector was half as common as the nonmedical sector (2 percent), and the public sector was one-quarter as common (1 percent) as the nonmedical sector. It is likely that people seek treatment from the nonmedical sector for two primary reasons. First, the nonmedical sector may be closer to the population and thus easier to access (see Table 3.8: transportation costs to the nonmedical sector are lowest). Second, it appears from the information in Table 3.8 that the nonmedical sector is considerably less expensive than the other sectors; this could also be an explanatory factor for the high rates of health care seeking in the nonmedical sector.

Table 3.6 presents the utilization of health services by urban-rural residence and total percentages. There are some significant differences evident by residence. Rural residents who are ill or injured are twice as likely not to seek treatment (12 percent) as urban residents (6 percent). There are no significant differences between rural and urban regions for the use of all public-sector or all private-sector sources for health treatment. Within the private sector, the private clinic was twice as common as a source of treatment in urban areas as in rural areas from the first to the third treatment. The nonmedical sector was more common as a first treatment in urban areas (43 percent) than in rural areas (34 percent). No differences were found in the second and third treatments. Dedicated drug stores with approved government licenses were three times as common for first treatment in urban areas (14 percent) as in rural areas (5 percent).

Table 3.6 Utilization of health care facilities

Percent distribution of household members who were ill or injured in the past 30 days by place of treatment, according to number of treatments and residence, Cambodia 2000

Place of treatment	Number of treatments for illness or injury								
	Urban			Rural			Total		
	First	Second	Third	First	Second	Third	First	Second	Third
Did not seek treatment	6.0	74.3	89.7	12.1	78.8	93.1	11.4	78.2	92.6
Public sector	16.8	4.8	2.1	18.8	4.0	1.2	18.5	4.1	1.3
Central hospital (Phnom Penh)	4.4	1.5	0.8	3.6	0.7	0.1	3.7	0.8	0.2
Provincial hospital	7.5	1.8	1.1	2.9	0.7	0.3	3.5	0.9	0.4
District hospital	0.9	0.4	0.0	5.1	1.3	0.4	4.6	1.1	0.3
Health center	2.0	0.6	0.0	3.1	0.7	0.1	2.9	0.7	0.1
Khum clinic	1.2	0.0	0.0	3.1	0.5	0.2	2.9	0.4	0.2
Health worker	0.7	0.4	0.2	0.7	0.1	0.1	0.7	0.1	0.1
Other public	0.1	0.0	0.0	0.3	0.1	0.0	0.3	0.0	0.0
Private sector	32.2	7.3	3.0	33.0	6.7	2.1	32.9	6.8	2.2
Private hospital	2.9	0.6	0.4	1.2	0.4	0.1	1.4	0.4	0.2
Private clinic	15.2	4.2	1.8	8.8	2.4	0.8	9.6	2.6	1.0
Home/office trained health worker	1.6	1.0	0.0	3.4	0.7	0.1	3.1	0.7	0.1
Visit of trained health worker/nurse	10.6	1.1	0.7	16.3	2.7	0.8	15.6	2.5	0.8
Other private medical	1.8	0.4	0.0	3.3	0.6	0.2	3.1	0.6	0.2
Nonmedical sector	43.2	13.1	5.0	34.0	10.0	3.4	35.1	10.4	3.6
Dedicated drugstore	14.3	6.2	2.3	4.6	1.9	0.8	5.8	2.4	1.0
Shop selling drugs/market	26.6	5.1	1.5	26.3	6.1	1.9	26.4	6.0	1.9
Kru Khmer/magician	2.0	1.5	1.0	2.8	1.9	0.7	2.7	1.9	0.7
Monk/religious leader	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0
Traditional birth attendant	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Other	1.4	0.5	0.3	1.5	0.4	0.1	1.5	0.4	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	751	751	751	5,352	5,352	5,352	6,104	6,104	6,104

3.6 COST FOR HEALTH CARE

Distribution of cost for health care

For each ill or injured person, the household respondent had to state the costs expended for transportation and treatment for each visit to a health care provider. These costs are presented in U.S. dollars in Table 3.7 by amount of money spent for transport and treatment. Transport costs were less than treatment costs in most cases. For all treatments, 83 percent of those ill or injured spent less than one dollar on transport to the health care provider. Expenditures on the actual treatment were much more varied. Slightly more than one-quarter of the ill or injured spent between one and four dollars for treatment. This was the most common amount of money spent for treatment. For total costs, consisting of both transport and treatment, the most common amount of money spent was one to four dollars (29 percent). A very small proportion of the ill or injured population paid for transport or treatment without money, that is, in kind (less than 1 percent).

Table 3.7 Distribution of cost for health care

Percent distribution of those household members who were ill or injured in the past 30 days and sought treatment by amount of money spent for transport and health care, according to number of treatments, Cambodia 2000

Amount spent for transport and health care	Treatment for illness or injury											
	First treatment			Second treatment			Third treatment			All treatments		
	Transport	Health care	Total cost	Transport	Health care	Total cost	Transport	Health care	Total cost	Transport	Health care	Total cost
Monetary cost												
<\$1	84.0	21.6	20.1	80.3	28.0	25.2	83.3	29.8	27.6	82.7	19.8	18.5
\$1 - \$4	11.8	29.9	31.1	13.8	28.9	31.8	12.0	34.9	37.9	12.0	28.4	29.3
\$5 - \$9	2.1	17.4	17.6	3.2	16.0	16.0	2.9	12.6	13.2	2.5	16.8	17.0
\$10 - \$19	1.0	13.4	13.6	0.9	11.3	11.5	1.5	7.9	8.0	1.3	14.2	14.3
\$20 - \$49	0.3	9.2	9.8	0.6	7.7	8.5	0.0	9.1	9.6	0.7	10.6	11.1
\$50 - \$99	0.1	4.3	4.4	0.3	3.9	4.2	0.0	1.9	1.9	0.2	5.3	5.5
\$100 +	0.1	3.1	3.3	0.4	2.2	2.4	0.0	1.5	1.5	0.2	4.0	4.4
Nonmonetary cost												
In kind	0.2	0.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.2	0.1	0.0
Don't know/missing	0.3	0.9	0.0	0.6	1.6	0.5	0.4	2.3	0.4	0.2	0.8	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: One US\$ = 4,000 riels.

There are few differences among the percent distributions of money spent for transport and treatment by first, second, and third treatments. For the first through third treatments, 80 to 84 percent of all ill or injured spent less than one dollar for transport costs. For the first and second treatments, almost one-third of all ill or injured spent one to four dollars for transport and treatment. On the third visit, 38 percent of the ill or injured paid one to four dollars for the combined costs of transport and treatment. For the first, second, and third treatments between 2 and 3 percent of the ill or injured spent 100 dollars or more in total expenditures for transport and treatment.

Expenditures for Health Care

To present the information on health care expenditures in another manner, the mean costs of transport and treatment are displayed in Table 3.8. There is an inverse relationship between cost of treatment and the number of treatments. As the number of treatments rise, the total cost for treatment decreases from 15 dollars at the first treatment to 10 dollars at the third treatment. The mean cost of transport does not follow a pattern. The first treatment transport costs are on average one dollar. The mean costs then rise for the second treatment to two dollars, indicating the need for further travel or more rapid transport. The average expenditures on the third treatment fall to slightly more than one-half of one dollar.

Mean costs of transport and treatment vary according to health sector, severity of illness or injury, age group, residence, and region. Examining health care costs by health sector shows that for the first treatment, the highest mean expenditure is for public-sector and “other” types of treatment (27 dollars). A response that falls into the category of “other” possibly represents going to another country such as Thailand or Vietnam for health care or going to trained medical professionals with specialized services. Private health care for the first treatment is less expensive (21 dollars) than public health care. The lowest mean expenditure is for those who sought care in the nonmedical sector (4 dollars). First treatments make up the majority of all health care seeking.

Table 3.8 Expenditures for health care

Mean expenditures (in U.S. dollars) for transport and health care by household members who were ill or injured in the past 30 days for transport or treatment by order of treatments, according to background characteristics, Cambodia 2000

Background characteristic	Treatment for illness or injury											
	First treatment			Second treatment			Third treatment			All treatments		
	Trans- port	Health care	Total	Trans- port	Health care	Total	Trans- port	Health care	Total	Trans- port	Health care	Total
Type of health sector												
Public	1.7	27.2	28.6	2.1	19.4	21.4	1.6	13.0	13.9	2.2	30.1	31.9
Private	0.8	20.6	21.2	1.5	19.5	20.4	0.4	16.7	17.0	1.3	26.1	27.1
Nonmedical sector	0.1	3.5	3.6	0.4	5.0	5.4	0.3	5.5	5.7	0.3	8.2	8.5
Other	12.4	26.7	37.9	29.2	73.6	92.7	0.0	5.3	5.3	16.8	40.6	55.9
Severity of illness or injury												
Slight	0.3	3.8	4.1	0.2	3.2	3.3	0.1	2.8	3.0	0.3	4.6	4.9
Moderate	1.2	16.1	17.2	1.3	12.1	13.3	0.6	9.7	10.2	1.6	20.0	21.5
Serious	2.0	46.8	47.7	4.9	32.0	36.7	1.0	22.6	21.8	4.0	61.7	64.5
Age group												
0-9	0.3	6.3	6.6	0.9	5.0	5.9	0.5	3.0	3.4	0.6	7.6	8.1
10-19	0.8	16.2	16.9	0.4	8.6	8.8	0.4	3.9	4.3	1.0	18.3	19.1
20-39	1.6	21.1	22.4	1.0	10.7	11.2	0.5	10.0	10.2	1.8	24.7	26.2
40-59	1.7	21.8	23.3	4.5	26.8	31.1	1.0	20.2	20.4	3.2	31.8	34.7
60+	0.6	20.3	20.6	0.6	19.9	20.5	(0.0)	(14.7)	(14.7)	0.7	26.1	26.6
Sex												
Male	0.7	14.5	15.1	1.6	12.9	14.4	0.4	10.2	10.5	1.2	18.4	19.4
Female	1.2	15.9	16.9	1.8	13.9	15.5	0.7	10.4	10.7	1.7	20.2	21.7
Residence												
Urban	1.8	15.8	17.4	4.7	18.2	22.8	0.6	18.7	18.9	3.2	22.7	25.7
Rural	0.8	15.3	16.0	1.2	12.7	13.7	0.6	8.5	8.9	1.2	18.9	20.0
Region												
Banteay Mean Chey	1.3	32.0	33.2	*	*	*	*	*	*	1.7	36.3	38.0
Kampong Cham	2.0	22.0	23.0	1.7	21.0	21.5	(1.4)	(17.1)	(17.8)	2.7	31.1	32.5
Kampong Chhnang	0.2	6.1	6.4	0.2	4.2	4.4	0.3	3.4	3.7	0.3	7.7	8.0
Kampong Spueu	0.8	14.3	15.0	(0.8)	(7.5)	(8.3)	*	*	*	0.9	15.5	16.4
Kampong Thum	0.3	12.7	13.0	1.9	10.3	12.0	*	*	*	0.5	13.9	14.4
Kandal	0.8	17.7	18.4	1.6	18.3	19.8	*	*	*	1.1	20.6	21.5
Kaoh Kong	5.4	31.4	36.3	3.5	47.2	48.6	*	*	*	6.6	47.4	53.4
Phnom Penh	5.7	23.8	29.0	6.4	23.3	29.4	0.5	9.5	9.8	9.4	39.2	47.9
Prey Veang	2.7	31.3	33.4	*	*	*	*	*	*	3.6	41.1	44.0
Pousat	0.2	9.9	10.1	2.5	9.8	12.2	(0.1)	(3.3)	(3.4)	0.9	12.5	13.4
Svay Rieng	0.6	13.9	14.4	0.2	5.4	5.6	(0.2)	(4.1)	(4.3)	0.7	16.1	16.7
Takaev	0.6	11.7	12.2	(1.6)	(22.8)	(24.4)	*	*	*	1.0	17.8	18.6
Bat Dambang/Krong Pailin	0.1	12.8	12.9	0.8	10.3	10.8	*	*	*	0.3	15.4	15.7
Kampot/Krong Kaeb/Krong Preah Sihanouk	1.0	20.5	21.3	1.8	10.4	12.2	*	*	*	1.6	24.6	26.0
Preah Vihear/Stueng Traeng/Kracheh	0.4	17.0	17.3	(0.6)	(16.9)	(17.5)	*	*	*	0.5	21.0	21.3
Mondol Kiri/Rotanak Kiri	3.4	20.9	24.2	(2.9)	(13.5)	(16.0)	*	*	*	4.6	31.1	35.4
Siem Reab/Otdar Mean Chey	0.4	11.7	12.1	0.3	5.6	5.9	0.3	11.3	11.4	0.6	14.8	15.4
Total	1.0	15.3	16.2	1.7	13.5	15.0	0.6	10.3	10.6	1.4	19.4	20.7

Note: Table includes only persons who paid cash or who reported no cost. One US\$ = 4,000 riels. Total includes 4 persons for whom information on severity of illness is not available. 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.

The majority of those who are seeking health care for the ill or injured go to the nonmedical sector, likely because it is the most affordable. By the second treatment, public and private health care have the same average cost (19.5 dollars). The mean costs for the nonmedical sector increased slightly (5 dollars) at the second treatment. The costs for “other” health care increased dramatically to 74 dollars. This increase is also marked in the transport cost to “other” medical treatment (29 dollars). It is likely that there are a few cases of large expenditures for the second treatment of “other” health care that make the average higher than the expenditures in the public or private sector. By the third treatment, the highest expenditures are for the private sector (17 dollars), followed by the public sector (13 dollars). Costs for nonmedical and “other” health care are similar (about 5.5 dollars).

The health care costs rise quickly by severity of illness or injury. At the first treatment, health care spending for serious conditions (47 dollars) is 12 times as much as the spending for treatment of slight conditions (4 dollars). This ratio of spending for severe conditions compared with slight conditions continues in the second (10 times as much) and third treatments (8 times as much). Transport costs vary slightly by severity of conditions. For slight conditions, transport costs are less than half a dollar for all three treatments. For severe conditions, transport costs range from one to five dollars.

The highest health care and transport costs for all treatments are paid for patients age 40-59 (35 dollars), followed by patients 60 years or older (27 dollars) and patients age 20-39 (26 dollars). The lowest health care costs are paid for patients 0-9 years of age (8 dollars). The total expenditures for health care and transport varies slightly by sex of patient. More is spent on care and transport in all treatments for women (22 dollars) than for men (19 dollars).

Health care and transport are more expensive in the urban areas than the rural areas. For all treatments, health care and transport cost 26 dollars in urban areas, compared with only 20 dollars in rural areas. At first treatment, there are small differences between urban and rural, but urban health care costs increase in the second and third treatments, while rural health care costs decline. Health care expenditures vary greatly in the different regions of Cambodia. For the first treatment, the highest expenditures for health care and transport are found in rural provinces such as Kaoh Kong (36 dollars), Prey Veang, and Banteay Mean Chey (both 33 dollars). The lowest health care and transport costs are found in Kampong Chhnang (6 dollars). When examining health care costs by region, it is evident that many provinces do not have enough cases to analyze the data for second and third treatments. For all treatments, the highest total costs are found in Kaoh Kong (53 dollars) and Phnom Penh (48 dollars). Kaoh Kong is a province with limited services on the border of Thailand. It is probable that the high expenditures reflect health-care seeking across the border. The lowest total costs were identified in Kampong Chhnang (8 dollars).

Since the health care system in Cambodia is largely a fee-based system, it is important to know the source of the money used to pay for health care. One goal of the health care system is to have appropriate funding mechanisms for the population to acquire health care without deepening poverty. The majority of money spent on health care comes from savings (54 percent) (Table 3.9). Other sources include wages or pocket money (16 percent), borrowed money with interest (11 percent), borrowed money without interest (9 percent), and sold assets (6 percent).

There are differences in source of money spent on health care by health sector. Savings are the most common source of funding in all sectors. Borrowed money with interest is more commonly used for public-sector health care (14 percent) and private-sector health care (12 percent) than for nonmedical-sector health care (8 percent). The same trend was found

Table 3.9 Source of money spent on health care

Percent distribution of the source of expenditures for transport and health care according to background characteristics, Cambodia 2000

Background characteristic	Source of money for health care							Total	Number ¹
	Wages/ pocket money	Savings	Borrowed money (no interest)	Borrowed money (with interest)	Sold assets	Other	Missing		
Type of health sector									
Public	17.3	47.0	10.6	14.2	7.9	1.7	1.3	100.0	762
Private	13.3	50.9	10.8	12.4	7.3	3.7	1.6	100.0	1,494
Nonmedical sector	17.1	61.2	6.1	8.2	4.0	1.6	1.7	100.0	1,632
Other	8.9	56.9	4.0	12.2	14.0	4.1	0.0	100.0	96
Severity of illness or injury									
Slight	20.1	59.6	5.4	8.2	2.2	1.6	2.8	100.0	1,441
Moderate	14.4	55.0	9.2	10.9	6.5	2.5	1.6	100.0	2,020
Serious	7.1	37.1	15.0	18.6	16.1	4.7	1.5	100.0	540
Monetary cost (US\$)									
<1	20.7	64.5	3.9	2.6	2.0	2.6	3.8	100.0	659
1-4	16.9	64.1	6.2	5.8	2.6	1.6	2.8	100.0	1,190
5-9	16.1	55.9	8.9	11.5	4.4	1.7	1.5	100.0	685
10-19	14.1	48.3	11.9	15.4	7.2	1.8	1.2	100.0	564
20-49	11.7	36.6	16.1	20.5	10.6	3.9	0.6	100.0	475
50-99	11.5	35.6	10.2	20.8	17.4	3.7	0.8	100.0	232
100+	4.7	36.8	9.2	20.2	22.1	6.6	0.5	100.0	200
Sex									
Male	16.2	53.1	8.8	10.8	6.1	2.7	2.3	100.0	1,678
Female	14.9	55.1	8.6	11.0	6.3	2.3	1.8	100.0	2,326
Residence									
Urban	22.8	57.0	5.0	7.3	4.3	3.2	0.4	100.0	512
Rural	14.4	53.9	9.2	11.5	6.5	2.3	2.2	100.0	3,492
Region									
Banteay Mean Chey	5.8	37.8	14.3	27.5	8.7	1.4	4.3	100.0	62
Kampong Cham	12.8	52.4	7.7	13.1	5.1	6.2	2.7	100.0	443
Kampong Chhnang	24.3	56.4	6.4	2.8	3.7	5.3	1.1	100.0	301
Kampong Spueu	3.4	60.4	8.6	7.0	17.9	1.6	1.1	100.0	172
Kampong Thum	7.9	66.6	8.4	6.4	8.4	0.7	1.6	100.0	377
Kandal	18.2	55.8	8.5	12.2	2.8	0.5	2.0	100.0	635
Kaoh Kong	3.0	65.4	12.8	11.0	1.9	2.7	3.2	100.0	36
Phnom Penh	24.8	50.0	4.8	12.1	1.6	6.7	0.0	100.0	199
Prey Veaeng	7.9	49.0	7.8	15.7	11.8	3.9	4.0	100.0	77
Pousat	4.0	65.1	5.3	7.6	16.5	1.0	0.5	100.0	199
Svay Rieng	36.3	34.9	10.1	3.9	11.3	1.6	1.9	100.0	236
Takaev	16.5	49.8	12.4	8.1	8.7	0.0	4.6	100.0	203
Bat Dambang/Krong Pailin	26.6	40.4	8.2	21.4	2.4	0.6	0.3	100.0	370
Kampot/Krong Kaeb/ Krong Preah Sihanouk	4.8	59.5	10.7	9.6	10.4	3.2	1.8	100.0	185
Preah Vihear/Stueng Traeng/Kracheh	34.8	44.7	8.2	7.6	3.4	0.7	0.7	100.0	87
Mondol Kiri/Rotanak Kiri	4.4	61.8	12.2	3.0	12.2	3.6	2.8	100.0	10
Siem Reab/Otdar Mean Chey	3.1	63.0	10.9	13.7	2.0	3.1	4.1	100.0	412
Total	15.5	54.3	8.6	10.9	6.2	2.5	2.0	100.0	4,004

Note: Total includes 20 cases for whom information on type of health sector is not available and 3 cases for whom information on severity of illness is not available.

¹ Number of households with at least one household member who was ill or injured in the past 30 days and who spent cash for treatment.

for borrowed money without interest. Regarding source of money for treatment by severity of illness or injury, there are other important differences. Wages/pocket money and savings are the most common sources of money for care for the least severe illness, becoming less common as severity increases. Sold assets are an increasing source of money for health care as the severity of condition rises. The same trend is found for borrowed money with and without interest.

The monetary costs of health care treatment show similar trends as those described above. Wages/pocket money and savings are the most utilized sources of money for health care expenditures when the costs are low. As costs increase, the proportion of funds pulled from these two sources decreases. Savings is still the most common source of money for health care when costs reach 100 dollars or more (37 percent). Borrowed money with interest becomes a more important source of money as treatment costs increase. When treatment costs are 20 dollars or more, borrowed money with interest increases to more than 20 percent of all cases. When treatment costs are 100 dollars or more, 22 percent of the ill or injured rely on sold assets as the source of money for health care.

There are no real differences in the source of money for health care by sex of the patient. Examining urban-rural residence, it is evident that urban residents rely more on wages or pocket money for health care (23 percent) than rural residents (14 percent). Rural residents rely more on borrowed money with interest for health care (12 percent) than urban residents (7 percent). Greater differences are found in the sources of money for health care by region than by urban-rural residence. The regions with the highest use of wages or pocket money for spending on health care were Svay Rieng (36 percent) and Preah Vihear/Stueng Traeng/Kracheh (35 percent). The provinces with the highest reliance on savings for health care spending were Kampong Thum (67 percent), Kaoh Kong and Pousat (both 65 percent). The highest reliance on money lenders offering loans with interest for health care was in Banteay Mean Chey (28 percent) and Bat Dambang/Krong Pailin (21 percent). The lowest reliance on these types of money lenders was found in Kampong Chhnang and Mondol Kiri/Rotanak Kiri (3 percent). The highest reliance on selling assets for money to spend on health care was found in the Kampong Spueu (18 percent) and Pousat provinces (17 percent).

RESPONDENTS' CHARACTERISTICS AND STATUS

4

The objective of this chapter is to provide a demographic and socioeconomic profile of the 2000 Cambodia DHS sample. Information on the basic characteristics of women interviewed in the survey is essential for the interpretation of findings presented later in the report and can provide an approximate indication of the representativeness of the survey.

4.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

The distribution of women age 15-49 by background characteristics including age, marital status, place of residence, region, educational level, and religion is shown in Table 4.1.

The distribution of the population of women by age reflects recent Cambodian history (see Figure 4.1). Note that 24 percent of women fall into the 15-19 age group, and a significantly smaller proportion of women are found in the 20-24 and 25-29 age groups (13 percent and 14 percent, respectively). This unusual distribution of women into the younger age groups (normally one would expect a more gradual and linear decrease in proportion of women in each age group as age increases) is an indicator of the demographic shocks that occurred as a result of the Khmer Rouge regime. The women who are currently in the age range of 20-29 were born in the 1970s, immediately prior to and during the Khmer Rouge years (1975-1979). Fertility declined during these years, concomitant with higher than normal mortality due to national conflict: between one and two million people are estimated to have been killed during the reign of the Khmer

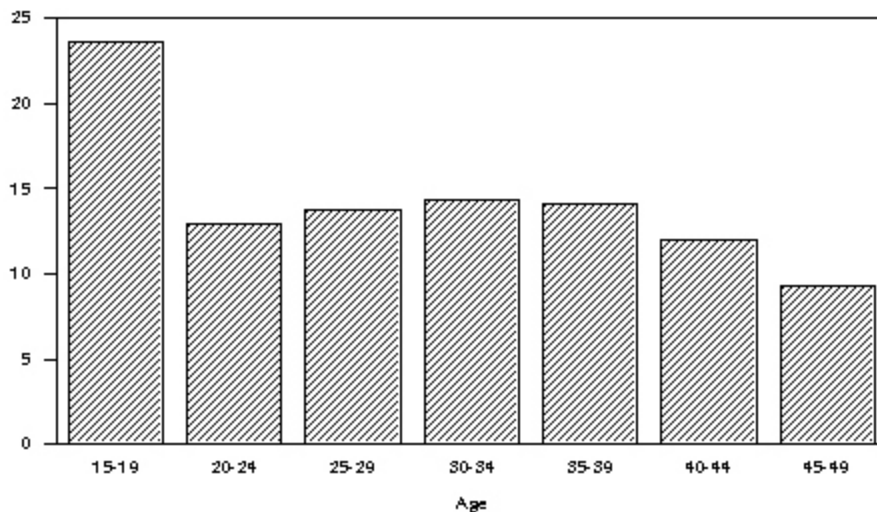
Table 4.1 Background characteristics of respondents

Percent distribution of women by background characteristics, Cambodia 2000

Background characteristic	Weighted percent	Number of women	
		Weighted	Un-weighted
Age			
15-19	23.6	3,618	3,564
20-24	12.9	1,982	1,942
25-29	13.8	2,118	2,164
30-34	14.3	2,195	2,234
35-39	14.1	2,168	2,202
40-44	12.0	1,847	1,823
45-49	9.3	1,425	1,422
Marital status			
Never married	31.8	4,884	4,646
Currently married	59.1	9,071	9,332
Widowed	6.0	919	911
Divorced/separated	3.1	477	462
Residence			
Urban	17.5	2,692	2,627
Rural	82.5	12,659	12,724
Region			
Banteay Mean Chey	4.4	672	740
Kampong Cham	12.8	1,961	814
Kampong Chhnang	3.8	583	1,027
Kampong Spueu	4.7	725	781
Kampong Thum	5.1	777	912
Kandal	9.6	1,469	885
Kaoh Kong	1.0	147	857
Phnom Penh	10.8	1,657	1,157
Prey Veang	8.3	1,272	843
Pousat	2.8	433	885
Svay Rieng	4.5	688	876
Takaev	7.2	1,107	958
Bat Dambang/Krong Pailin	7.1	1,084	873
Kmpot/Krong Kaeb/ Krong Preah Sihanouk	6.5	999	863
Preah Vihear/Stueng	3.8	582	1,029
Traeng/Kracheh	1.0	161	905
Mondol Kiri/Rotanak Kiri	6.7	1,036	946
Siem Reab/Otdar Mean Chey			
Education			
Never attended school	28.3	4,338	4,849
Primary	54.6	8,376	8,182
Lower secondary	12.9	1,987	1,807
Upper secondary	3.8	588	469
More than secondary	(0.4)	62	44
Religion			
Buddhist	96.0	14,739	14,283
Muslim	2.5	391	386
Christian	(0.3)	41	41
Other/don't know	1.2	181	641
Total	100.0	15,351	15,351

Note: Education refers to the highest level ever attended whether or not that level was completed. Figures in parentheses are based on 25-49 unweighted cases.

Figure 4.1 Percent Distribution of Women 15-49 by Age



CDHS 2000

Rouge. These events are reflected in the comparatively smaller proportions of women in the 20-24 and 25-29 age groups. After the conflict subsided, there was a baby boom, represented by the high proportion of women in the 15-19 age range. The number of women, expectedly, declines with age: 9 percent of women fall into the 45-49 age group.

Three out of every five women are married, and there is little divorce (3 percent). Six percent of women are widowed and about one-third of the women (32 percent) have never been married. In terms of religious affiliation, most women are Buddhist (96 percent), with 3 percent of the women identifying themselves as Muslim. Forty-one women out of 15,351 identified themselves as Christian.

The majority of respondents (more than 80 percent) live in the rural areas. Thirteen percent live in Kampong Cham, and 11 percent live in the capital city of Phnom Penh. More than 70 percent of women have been to school, with 17 percent of all women having gone on to some secondary education. Due to small numbers, respondents with higher education are grouped together with those who had secondary education, and the education category is reclassified into “secondary and higher” in subsequent tables in this report.

4.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Table 4.2 shows the educational level of respondents by selected background characteristics. Twenty-eight percent of women have no formal education. Among women who attended school, the majority began, but did not complete, primary education (49 percent of all women). Seventeen percent of women have at least some secondary education. Women in the 35-39 age group are unusual, in that 42 percent of these women have never been to school, compared with 36 percent of women in the 40-49 age group, and 26 percent of women in the 30-34 age group. This pattern probably occurred because women in the 35-39 age group reached school age at the time of the Khmer Rouge.

Table 4.2 Educational attainment by background characteristics

Percent distribution of women by highest level of schooling attended, by background characteristics, Cambodia 2000

Background characteristic	Highest level of schooling attained						Total	Number	Median years of schooling
	No education	Primary		Secondary		More than secondary			
		Some	Completed ¹	Some	Completed ²				
Age									
15-19	18.8	47.4	9.2	21.9	2.2	0.5	100.0	3,618	3.7
20-24	27.4	45.6	6.2	17.3	2.7	0.8	100.0	1,982	3.0
25-29	21.4	47.9	5.9	22.3	2.2	0.3	100.0	2,118	3.4
30-34	26.2	49.3	5.1	17.1	1.8	0.5	100.0	2,195	2.6
35-39	42.3	48.5	3.3	5.4	0.4	0.1	100.0	2,168	1.1
40-44	35.7	52.9	3.6	7.0	0.6	0.2	100.0	1,847	1.6
45-49	35.9	50.7	5.7	6.6	1.0	0.1	100.0	1,425	1.8
Residence									
Urban	15.4	37.9	7.8	30.5	6.4	1.9	100.0	2,692	4.7
Rural	31.0	50.9	5.6	11.9	0.6	0.1	100.0	12,659	2.3
Region									
Banteay Mean Chey	44.1	37.2	4.7	13.3	0.7	0.0	100.0	672	1.4
Kampong Cham	33.6	50.5	4.4	9.9	1.5	0.0	100.0	1,961	2.1
Kampong Chhnang	23.1	63.5	2.8	9.7	0.8	0.1	100.0	583	1.7
Kampong Spueu	46.3	40.8	4.5	7.7	0.6	0.1	100.0	725	1.3
Kampong Thum	25.1	57.9	5.7	10.3	1.0	0.0	100.0	777	2.3
Kandal	23.3	53.2	8.3	14.9	0.5	0.0	100.0	1,469	2.6
Kaoh Kong	40.0	47.8	3.4	7.9	0.8	0.1	100.0	147	1.5
Phnom Penh	7.8	36.0	7.4	38.0	7.3	3.5	100.0	1,657	5.8
Prey Veaeang	34.7	54.0	3.7	7.0	0.6	0.0	100.0	1,272	2.1
Pousat	32.1	51.2	4.9	11.2	0.5	0.1	100.0	433	1.8
Svay Rieng	24.0	57.8	5.3	12.5	0.4	0.0	100.0	688	2.6
Takaev	19.8	53.1	8.9	17.6	0.5	0.0	100.0	1,107	3.2
Bat Dambang/ Krong Pailin	21.7	48.0	7.2	21.1	1.8	0.2	100.0	1,084	3.1
Kampot/Krong Kaeb/Krong Preah Sihanouk	22.5	53.0	8.0	15.0	1.5	0.0	100.0	999	2.9
Preah Vihear/Stueng Traeng/Kracheh	24.9	52.3	6.0	16.0	0.7	0.0	100.0	582	2.6
Mondol Kiri/ Rotanak Kiri	74.6	16.7	2.3	6.1	0.3	0.0	100.0	161	0.0
Siem Reab/Otdar Mean Chey	48.0	37.2	5.0	8.3	1.6	0.0	100.0	1,036	0.7
Total	28.3	48.6	5.9	15.1	1.6	0.4	100.0	15,351	2.5

¹ Completed grade 6 at the primary level

² Completed grade 12 at the secondary level

Women born during the reign of the Khmer Rouge (those currently age 20-24) are also more likely than other age groups to have no education (27 percent have never attended school).

However, the general pattern evident in this table indicates a decrease of the proportion of women with no education from the oldest to the youngest cohorts, indicating a slight improvement over time in women's education. The median years of schooling (2.5 at the national level) also increased with successive cohorts, from less than 2 years among the oldest women to 3.7 years among women age 15-19.

Education varies greatly according to residence. Eighty-five percent of women who live in urban areas have been to school, while 39 percent of urban women have reached the secondary level of education. For the more than 80 percent of Cambodia's population who live in rural areas, educational attainment is lower, with 69 percent of women having ever attended school, but only 13 percent having attained the secondary level. Residents of the more urban areas of the country like Phnom Penh and Bat Dambang/Krong Pailin, but also Takaev, have higher levels of educational attainment, especially at the secondary level or higher. The median years of schooling per woman for these regions are 5.8 years, 3.1 years, and 3.2 years, respectively. Mondol Kiri/Rotanak Kiri has a proportion of uneducated women that is significantly higher than all other regions, with 75 percent of the women in that area never having attended school.

4.3 LITERACY

In the CDHS 2000, literacy was determined by a respondent's ability to read part or all of a sentence in any language that the respondent was familiar with (Khmer, Vietnamese, Chinese, French, or English). The questions assessing literacy were asked only of respondents who had not attended school or had attended primary school only.

Table 4.3 shows that only 42 percent of women are literate (they have a secondary-level education—7 percent—or can read a whole sentence—25 percent), while another 24 percent of women is only partially literate. There is a much lower literacy level among rural women than among those living in the urban areas: 18 percent of urban women cannot read at all, while double that proportion of rural women are illiterate. Literacy levels vary widely among regions, from a low of 9 percent of illiterate women in Phnom Penh to a high of 75 percent of illiterate women in Mondol Kiri/Rotanak Kiri.

Note that 28 percent of women have no education, while 32 percent are illiterate and 24 percent are only partially literate. The difference between the level of education and the level of literacy indicates that a large proportion of women who attended school did not spend enough time in school to become literate or they have forgotten what they learned.

Table 4.3 Literacy

Percent distribution of women by level of schooling attended and by level of literacy, according to background characteristics, Cambodia 2000

Background characteristic	Secondary school or higher	No schooling or primary school				Total	Number
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language		
Age							
15-19	24.7	30.0	20.0	24.8	0.1	100.0	3,618
20-24	20.9	23.9	20.3	34.4	0.2	100.0	1,982
25-29	24.9	25.2	22.3	27.3	0.1	100.0	2,118
30-34	19.5	24.0	25.7	30.5	0.1	100.0	2,195
35-39	6.0	22.2	28.4	43.0	0.1	100.0	2,168
40-44	8.4	23.3	30.6	37.4	0.1	100.0	1,847
45-49	8.7	25.8	28.1	37.1	0.2	100.0	1,425
Residence							
Urban	39.1	28.4	14.6	17.6	0.0	100.0	2,692
Rural	12.8	24.8	26.5	35.6	0.2	100.0	12,659
Region							
Banteay Mean Chey	14.1	16.8	20.3	48.8	0.0	100.0	672
Kampong Cham	11.7	20.1	28.8	38.1	0.7	100.0	1,961
Kampong Chhnang	10.8	38.7	19.3	30.6	0.2	100.0	583
Kampong Spueu	8.7	29.6	15.3	46.3	0.0	100.0	725
Kampong Thum	12.4	31.2	26.3	30.0	0.0	100.0	777
Kandal	15.8	20.8	33.9	29.4	0.1	100.0	1,469
Kaoh Kong	9.1	19.4	28.2	42.7	0.5	100.0	147
Phnom Penh	49.0	26.1	16.1	8.6	0.0	100.0	1,657
Prey Veaseng	7.7	27.0	30.0	35.3	0.0	100.0	1,272
Pousat	12.1	18.5	32.4	36.9	0.1	100.0	433
Svay Rieng	13.1	36.5	13.7	36.6	0.0	100.0	688
Takaev	18.1	25.1	32.7	23.5	0.0	100.0	1,107
Bat Dambang/Krong Pailin	23.2	24.4	26.3	25.8	0.1	100.0	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	16.5	29.0	20.7	33.2	0.0	100.0	999
Preah Vihear/Stueng							
Traeng/Kracheh	17.0	25.3	28.9	28.5	0.1	100.0	582
Mondol Kiri/Rotanak Kiri	6.4	10.1	8.3	75.1	0.0	100.0	161
Siem Reab/Otdar Mean Chey	9.8	26.5	14.9	48.3	0.0	100.0	1,036
Total	17.4	25.4	24.4	32.4	0.1	100.0	15,351

4.4 EXPOSURE TO MASS MEDIA

The CDHS 2000 collected information on the exposure of respondents to both the broadcast and print media. This information is important because it provides an indication of the exposure of women to the mass media that can be used to disseminate family planning, health, and other information. Access to mass media is relatively high in Cambodia: Table 4.4 shows that 70 percent of women have some weekly exposure to the mass media. Watching television is the most common way of accessing the media: 56 percent of women watch television at least once a week. Listening to the radio is also common (46 percent of women listen at least once a week), with newspapers being the least utilized form of media (12 percent read a paper at least once a week).

Media exposure varies with the age of the respondent. Women in the older age groups tend to access the three types of media less frequently than younger women; the youngest group of women (15-19 years old) is significantly more likely than any other age group to access any media, particularly television and newspaper. There are also clear geographic differences in media exposure. Urban women have better access to all three media sources than their rural counterparts. Due to lower literacy levels, rural women are much less likely to report that they read a newspaper at least once a week than urban women (8 percent compared with 32 percent). The level of exposure of women to television broadcasts is greater than all other media sources, even in rural areas.

Table 4.4 Exposure to mass media

Percentage of women who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio at least once a week, by background characteristics, Cambodia 2000

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media	No mass media	Number
Age						
15-19	17.1	66.4	50.8	12.9	23.0	3,618
20-24	12.1	55.1	46.7	9.0	31.5	1,982
25-29	12.1	53.1	45.0	9.1	32.2	2,118
30-34	11.4	51.5	43.5	8.0	34.4	2,195
35-39	9.6	50.9	42.0	6.0	33.9	2,168
40-44	9.4	54.5	46.5	7.0	31.2	1,847
45-49	9.3	54.9	44.8	7.1	31.1	1,425
Residence						
Urban	32.4	75.9	59.7	25.6	15.1	2,692
Rural	8.0	52.1	43.2	5.4	33.5	12,659
Region						
Banteay Mean Chey	7.9	31.9	21.5	2.8	59.1	672
Kampong Cham	7.3	52.4	45.0	4.6	28.1	1,961
Kampong Chhnang	9.9	64.5	53.5	8.0	22.5	583
Kampong Spueu	8.1	56.1	33.0	5.3	35.7	725
Kampong Thum	9.9	22.6	41.6	4.2	49.4	777
Kandal	7.4	61.0	36.6	6.5	31.2	1,469
Kaoh Kong	11.1	33.2	21.1	3.8	53.9	147
Phnom Penh	40.6	89.2	60.4	34.9	7.9	1,657
Prey Veang	6.0	65.5	45.8	4.9	26.5	1,272
Pousat	7.2	49.6	30.9	2.9	37.3	433
Svay Rieng	15.2	40.0	55.1	8.2	30.3	688
Takaev	6.7	77.4	69.2	5.4	12.8	1,107
Bat Dambang/Krong Pailin	11.3	63.1	56.9	9.6	23.3	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	14.1	53.8	54.9	9.2	23.9	999
Preah Vihear/Stueng Traeng/Kracheh	11.4	21.7	28.9	5.3	60.1	582
Mondol Kiri/Rotanak Kiri	8.4	15.7	12.5	3.9	78.0	161
Siem Reab/Otdar Mean Chey	6.2	44.8	38.1	4.0	43.0	1,036
Education						
No education	0.5	39.0	31.5	0.2	47.8	4,338
Primary	10.5	57.7	48.0	7.2	27.5	8,376
Secondary and higher	37.3	80.2	64.3	29.0	10.5	2,637
Total	12.2	56.3	46.1	9.0	30.3	15,351

Among the regions, women residing in Phnom Penh have by far the greatest exposure to all three media (35 percent), with Bat Dambang/Krong Pailin being the next region most exposed to mass media with 10 percent of women using all three types of media at least once a week. Women residing in Banteay Mean Chey, Preah Vihear/Stueng Traeng/Kracheh and Mondol Kiri/Rotanak Kiri are the least likely to be exposed to the media (59 percent, 60 percent, and 78 percent, respectively, have no access to media). There are also interesting regional differences in media access when taking literacy levels into account. For example, both Kampong Chhnang and Svay Rieng have 50 percent literacy rates; however, whereas 15 percent of women in Svay Rieng read the newspaper at least once a week, only 10 percent of women in Kampong Chhnang do. Women

in Svay Rieng are also much less likely to watch television than women in Kampong Chhnang (40 percent compared with 65 percent).

As expected, media exposure is related to the educational level of the respondent. Four out of every five women with secondary or higher levels of education watch television at least once a week, compared with almost two in five women with no education. Regarding the printed media, 11 percent of women with primary education reported reading a newspaper at least once a week, compared with 37 percent of women with secondary and higher education.

4.5 EMPLOYMENT

Respondents were asked a number of questions to elicit their employment status at the time of the survey and continuity of employment in the 12 months prior to the survey. Table 4.5 shows this information for Cambodian women according to different background characteristics. Almost three-quarters of women (73 percent) were working at the time of the survey, 9 percent worked during the 12 months prior to the survey, and 18 percent did not work at all. Most currently employed women work seasonally (48 percent), while 24 percent of women work year-round.

The youngest group of women is the least likely to be employed year-round (20 percent), but make up a significant proportion of seasonal/occasional workers (44 percent). Otherwise, there is no consistent pattern of work behavior by age. There is also little pattern of year-round work behavior by number of children until women have had five or more children, at which point they are less likely to work year-round than other women, but more likely to work seasonally; seasonal work participation increases with parity. Women with no children are the least likely to have worked in the past year (21 percent did not work).

Never-married women are only slightly more likely to work year-round than married women, while those who are divorced, separated, or widowed are the most likely to be doing any kind of work and the least likely to be currently unemployed.

A higher proportion of women in urban areas work year-round than rural women (47 percent compared with 19 percent), and higher proportions of rural women work seasonally than urban women (54 percent compared with 17 percent). This likely indicates differences between a rural, agricultural economy and an urban economy. Phnom Penh has the highest proportion of women engaged in year-round employment (63 percent), followed by Kandal (29 percent) and Bat Dambang/Krong Pailin (28 percent). Banteay Mean Chey has the highest proportion of women who did not work in the past year (49 percent).

Among the small proportion of women who attained secondary and higher levels of education, 29 percent were not working in the 12 months preceding the survey, compared with those who received no education at all (13 percent). Seasonal employment is more common among uneducated women (61 percent) than among those with secondary and higher education (21 percent). Women with the highest levels of education are the most likely to be working year-round; both high educational attainment and ability to work year-round are likely associated with urban residence.

Table 4.5 Employment

Percent distribution of women by employment status and continuity of employment, according to background characteristics, Cambodia 2000

Background characteristic	Not currently employed		Currently employed				Total	Number of women
	Did not work in last 12 months	Worked in last 12 months	All year	Seasonally	Occasionally	Missing		
Age								
15-19	27.4	8.4	19.7	42.1	2.0	0.3	100.0	3,618
20-24	18.2	8.6	25.4	45.7	1.7	0.4	100.0	1,982
25-29	16.7	9.1	22.1	50.4	1.5	0.2	100.0	2,118
30-34	14.9	9.3	26.0	46.8	2.7	0.3	100.0	2,195
35-39	13.4	9.6	24.6	50.4	1.7	0.3	100.0	2,168
40-44	12.5	8.8	24.8	51.6	2.0	0.3	100.0	1,847
45-49	12.8	6.7	25.9	52.3	1.7	0.5	100.0	1,425
Current marital status								
Never married	22.1	7.2	24.5	43.6	2.2	0.4	100.0	4,884
Currently married	16.9	9.5	22.2	49.2	1.8	0.3	100.0	9,071
Divorced, separated, widowed	8.8	8.5	28.9	51.6	2.0	0.3	100.0	1,396
Number of living children								
None	21.3	7.6	24.6	44.1	2.0	0.4	100.0	5,800
1-2	18.4	8.5	24.9	46.1	1.7	0.3	100.0	3,568
3-4	14.9	9.5	24.2	49.1	2.0	0.3	100.0	3,132
5+	13.2	10.4	19.0	55.1	2.0	0.4	100.0	2,851
Residence								
Urban	28.1	6.5	46.6	16.8	1.8	0.1	100.0	2,692
Rural	15.7	9.2	18.7	54.2	1.9	0.4	100.0	12,659
Region								
Banteay Mean Chey	49.0	5.1	18.7	22.5	4.6	0.0	100.0	672
Kampong Cham	17.4	1.4	20.4	59.4	1.1	0.4	100.0	1,961
Kampong Chhnang	3.9	0.8	24.7	67.1	2.3	1.2	100.0	583
Kampong Spueu	3.4	0.3	9.1	85.8	0.5	0.9	100.0	725
Kampong Thum	8.9	0.1	17.2	69.3	4.1	0.4	100.0	777
Kandal	15.7	3.6	29.1	49.0	2.5	0.1	100.0	1,469
Kaoh Kong	35.5	1.7	27.9	34.5	0.4	0.0	100.0	147
Phnom Penh	27.0	5.0	63.4	2.9	1.6	0.1	100.0	1,657
Prey Veang	1.9	18.7	10.2	68.1	0.9	0.1	100.0	1,272
Pousat	7.6	0.1	16.3	74.5	1.0	0.4	100.0	433
Svay Rieng	15.2	0.2	8.5	73.5	0.8	1.6	100.0	688
Takaev	35.2	10.0	10.6	43.1	0.7	0.3	100.0	1,107
Bat Dambang/Krong Pailin	20.7	7.8	28.2	39.0	4.1	0.2	100.0	1,084
Kampot/Krong Kaeb/Krong Preah Sihanouk	11.7	50.0	19.4	15.0	4.0	0.0	100.0	999
Preah Vihear/Stueng Traeng/Kracheh	27.9	1.0	18.0	51.0	1.4	0.6	100.0	582
Mondol Kiri/Rotanak Kiri	13.3	0.2	11.9	74.1	0.6	0.0	100.0	161
Siem Reab/Otdar Mean Chey	14.0	18.2	22.0	45.1	0.5	0.2	100.0	1,036
Education								
No education	13.4	9.3	14.3	61.0	1.6	0.3	100.0	4,338
Primary	16.5	9.2	22.7	49.3	2.0	0.4	100.0	8,376
Secondary and higher	29.4	6.2	41.6	20.5	2.2	0.1	100.0	2,637
All women	17.8	8.7	23.6	47.6	1.9	0.3	100.0	15,351

4.6 OCCUPATION

Table 4.6 shows data for currently working women by their occupation. Agriculture is the dominant sector of the economy: 67 percent of working women work in agriculture. The majority of the women currently working in nonagricultural sectors are engaged in sales and services

Table 4.6 Occupation

Percent distribution of currently employed women by occupation (agricultural and nonagricultural) and type of agricultural land worked or type of nonagricultural employment, according to background characteristics, Cambodia 2000

Background characteristic	Agricultural				Nonagricultural						Total	Number of currently employed women
	Own land	Family land	Rented land	Other land	Prof./tech./manag.	Clerical	Sales and services	Manual		Other/missing		
								Skilled	Unskilled			
Age												
15-19	17.6	39.5	1.6	8.7	1.5	1.4	16.2	7.8	5.3	0.4	100.0	2,320
20-24	32.3	23.9	2.3	6.7	2.5	0.8	19.3	6.8	4.7	0.6	100.0	1,451
25-29	45.6	16.2	2.9	4.3	4.0	1.8	17.3	4.5	2.8	0.4	100.0	1,572
30-34	44.0	11.6	3.2	4.3	5.6	0.7	23.0	4.8	2.5	0.3	100.0	1,663
35-39	48.4	10.3	2.8	5.9	3.2	0.5	22.1	5.0	1.4	0.4	100.0	1,671
40-44	49.3	10.3	2.9	4.7	3.3	1.1	21.1	4.6	2.0	0.6	100.0	1,454
45-49	49.9	9.4	3.1	3.7	4.9	0.6	22.5	3.9	1.0	0.9	100.0	1,146
Current marital status												
Never married	19.9	34.3	1.5	7.8	3.4	1.5	17.8	8.3	5.1	0.5	100.0	3,453
Currently married	48.5	12.6	3.2	4.7	3.3	0.8	20.6	4.2	1.7	0.4	100.0	6,668
Divorced, separated, widowed	43.6	10.3	2.5	5.9	4.0	0.7	22.2	5.3	4.4	1.1	100.0	1,155
Number of living children												
0	21.9	33.2	1.5	7.4	3.6	1.5	17.7	7.8	4.8	0.6	100.0	4,123
1-2	44.7	13.7	2.7	4.7	4.2	1.0	21.3	4.5	2.6	0.5	100.0	2,608
3-4	47.9	7.8	4.0	5.1	3.9	1.0	23.6	4.2	2.1	0.4	100.0	2,367
5+	56.1	10.5	3.1	4.6	1.7	0.2	18.3	4.0	1.1	0.3	100.0	2,178
Residence												
Urban	13.5	8.4	1.1	3.0	11.6	4.7	47.0	5.9	3.7	1.0	100.0	1,759
Rural	44.0	21.0	2.9	6.3	1.9	0.3	14.9	5.5	2.9	0.4	100.0	9,517
Region												
Banteay Mean Chey	27.5	13.0	0.6	8.0	4.7	0.3	33.7	7.7	3.6	0.9	100.0	308
Kampong Cham	48.7	12.3	4.3	8.8	3.1	0.3	14.4	4.6	2.9	0.5	100.0	1,593
Kampong Chhnang	25.2	35.6	1.3	11.9	2.2	0.3	17.6	4.7	0.9	0.1	100.0	555
Kampong Spueu	65.4	24.0	0.0	1.0	0.4	0.4	5.9	0.7	1.8	0.3	100.0	698
Kampong Thum	58.0	15.7	5.1	4.6	1.1	0.1	11.4	2.0	1.8	0.1	100.0	707
Kandal	41.2	10.4	5.4	6.0	1.9	0.4	17.1	11.4	5.8	0.3	100.0	1,185
Kaoh Kong	35.0	9.8	1.2	10.3	2.3	0.8	32.4	7.0	1.0	0.3	100.0	92
Phnom Penh	2.5	1.5	0.7	1.9	12.5	7.4	54.1	7.7	10.7	1.1	100.0	1,128
Prey Veang	37.6	49.6	0.3	2.4	0.8	0.0	6.7	0.6	1.8	0.3	100.0	1,009
Pousat	54.4	19.7	1.4	5.2	1.2	0.3	14.4	2.5	0.8	0.1	100.0	399
Svay Rieng	64.4	19.2	2.6	3.7	2.9	0.3	4.4	2.3	0.0	0.3	100.0	582
Takæev	47.1	27.4	0.4	4.8	1.9	0.2	11.3	6.0	0.2	0.7	100.0	606
Bat Dambang/Krong Pailin	17.3	21.4	4.0	11.7	4.5	0.6	32.2	4.5	2.3	1.6	100.0	775
Kampot/Krong Kaeb/Krong Preah Sihanouk	13.1	2.7	0.7	10.3	6.2	0.3	51.4	11.0	4.3	0.0	100.0	383
Preah Vihear/Stueng Traeng/Kracheh	46.5	22.7	4.2	3.5	3.3	0.5	15.0	3.6	0.0	0.6	100.0	413
Mondol Kiri/Rotanak Kiri	77.6	7.8	1.1	1.4	2.0	0.5	8.3	0.2	1.0	0.1	100.0	139
Siem Reab/Otdar Mean Chey	38.1	20.2	4.3	4.7	2.2	0.2	15.7	13.5	0.8	0.2	100.0	702
Education												
No education	49.6	21.6	3.1	6.9	0.3	0.1	12.0	4.2	2.1	0.2	100.0	3,352
Primary	40.0	19.7	2.9	6.0	1.4	0.7	20.5	5.3	3.0	0.5	100.0	6,224
Secondary and higher	15.9	11.2	0.7	2.7	17.0	3.9	33.5	9.0	5.0	1.0	100.0	1,699
Total	39.2	19.0	2.6	5.8	3.4	1.0	19.9	5.5	3.0	0.5	100.0	11,276

Note: Prof./tech./mManag. includes professional, technical, and managerial occupations.

(20 percent), followed distantly by skilled manual professions (6 percent). For women working in agriculture, the data are presented by type of land holding. The majority of women work on their own land (39 percent), while a smaller proportion works family land (19 percent).

The age pattern of occupation varies by the type of work. The proportion of women currently working in agriculture on their own land increases with age from 18 percent of 15- to 19-year-olds, to 32 percent of 20- to 24-year-olds, and then up to an average of 47 percent of women working their own land between the ages of 25 and 49. The same pattern prevails among women working in sales and services, with the exception of a dip among the 25- to 29-year-olds, probably because they are caring for infants at this age.

The majority of currently married women work on their own land, while those women who have never married (likely to be in the youngest age groups) work their family's land. The likelihood of a woman working her own land increases with parity. As expected, rural women are more likely to be working in agriculture: 74 percent of women living in the rural areas work in agriculture. On the other hand, 47 percent of urban women are working in sales and services. Education is also related to a woman's occupation: 81 percent of women who are working and have never attended school work in agriculture, while 68 percent of women with secondary or higher education are working in nonagricultural occupations.

4.7 EMPLOYER AND FORM OF EARNINGS

Table 4.7 shows that a little more than one-fifth of working women (22 percent) are self-employed, 67 percent work for a family member, and only 11 percent work for someone else. Almost all working women in rural areas are either self-employed or work for a family member (91 percent), while one-quarter of working women in urban areas work for someone other than a family member. Similarly, less educated women and women engaged in agriculture are much more likely to work for a family member.

Employment is assumed to go hand in hand with payment for work. However, not all women receive earnings for the work they do, and among women who do receive earnings, not all receive earnings in cash. Forty-nine percent of women receive only cash or cash and in-kind payment for their work, and 51 percent are paid either in kind only or do not receive any form of payment. Most of the women who are paid either in kind or receive no payment are employed by family members.

Highly educated women and those engaged in nonagricultural occupations are much more likely to earn cash than other women. Seventy-four percent of women with secondary and higher education earn cash, compared with 39 percent of uneducated women. Additionally, almost all women involved in nonagricultural occupations earn cash (95 percent), compared with just one-quarter of women working in agriculture.

Table 4.7 Employer and form of earnings

Percent distribution of currently employed women by employer and type of earnings (cash, in kind, no payment), according to background characteristics, Cambodia 2000

Background characteristic	Self-employed		Employed by a nonfamily member		Employed by a family member		Total	Number of currently employed women
	Earns cash ¹	Does not earn cash ²	Earns cash ¹	Does not earn cash ²	Earns cash ¹	Does not earn cash ²		
Age								
15-19	5.9	0.8	13.8	1.3	23.6	54.3	100.0	2,320
20-24	10.9	4.4	13.0	1.1	24.2	46.3	100.0	1,451
25-29	14.1	7.5	10.0	1.6	22.2	44.5	100.0	1,572
30-34	19.7	8.0	10.0	0.6	23.6	38.2	100.0	1,663
35-39	20.5	10.2	7.8	0.8	23.4	37.3	100.0	1,671
40-44	20.7	9.2	7.4	0.8	24.4	37.5	100.0	1,454
45-49	21.0	9.1	8.3	0.9	22.8	37.9	100.0	1,146
Residence								
Urban	23.9	2.3	24.0	1.0	30.6	18.2	100.0	1,759
Rural	13.7	7.4	7.8	1.0	22.2	47.8	100.0	9,517
Region								
Banteay Mean Chey	11.5	0.6	7.1	1.8	41.2	37.9	100.0	308
Kampong Cham	7.6	3.2	10.8	2.0	19.1	57.4	100.0	1,593
Kampong Chhnang	41.3	1.4	4.2	1.1	30.6	21.5	100.0	555
Kampong Spueu	33.7	35.7	3.0	0.7	11.7	15.2	100.0	698
Kampong Thum	5.5	0.2	1.7	0.4	47.5	44.6	100.0	707
Kandal	15.1	11.3	16.7	0.1	38.8	17.9	100.0	1,185
Kaoh Kong	19.8	5.8	8.7	0.9	32.7	32.0	100.0	92
Phnom Penh	30.7	0.3	40.0	1.0	24.4	3.6	100.0	1,128
Prey Veaeng	0.2	0.0	2.0	0.1	10.6	87.2	100.0	1,009
Pousat	2.7	0.5	3.4	1.8	18.6	73.2	100.0	399
Svay Rieng	2.4	3.7	3.2	1.7	13.2	75.6	100.0	582
Takaev	8.1	11.6	4.0	1.2	15.0	59.9	100.0	606
Bat Dambang/Krong Pailin	27.7	9.6	12.8	1.7	12.9	35.0	100.0	775
Kampot/Krong Kaeb/Krong Preah Sihanouk	22.5	0.6	7.6	0.6	57.0	11.7	100.0	383
Preah Vihear/Stueng								
Traeng/Kracheh	6.6	22.2	4.4	1.5	12.6	52.5	100.0	413
Mondol Kiri/Rotanak Kiri	1.6	0.0	4.4	1.6	11.6	80.8	100.0	139
Siem Reab/Otdar Mean Chey	16.9	3.8	4.2	0.5	18.2	56.6	100.0	702
Education								
No education	12.6	8.6	6.2	0.8	20.4	51.2	100.0	3,352
Primary	15.6	6.4	8.1	1.1	24.0	44.7	100.0	6,224
Secondary and higher	19.7	3.3	26.5	1.0	27.7	21.7	100.0	1,699
Occupation								
Agriculture	7.2	9.8	3.3	1.2	15.5	63.0	100.0	7,511
Nonagriculture	31.5	0.2	24.4	0.7	39.3	3.7	100.0	3,765
Total	15.3	6.6	10.3	1.0	23.5	43.2	100.0	11,276

Note: Total includes women with missing information on type of employer or earnings and/or employment status.

¹ Includes both women who receive only cash and those who receive cash and in-kind payment.

² Includes both women who receive only in-kind payment and those who receive no payment.

4.8 DECISION ON USE OF EARNINGS AND PROPORTION OF HOUSEHOLD EXPENDITURES MET BY EARNINGS

To assess women's autonomy, information was sought in the CDHS 2000 on the extent of control women exercise over their earnings. Employed women who earn cash for their work were asked for the main decisionmaker on the use of their earnings. Table 4.8 shows that almost half of women report that they are mainly responsible for making decisions on how their earnings will be spent (49 percent), 43 percent say that they make these decisions jointly with their husband or partner or another person, and 9 percent say that someone else decides for them.

Likelihood that someone else makes decisions about how the respondent's earnings are used declines with age from a high of 24 percent among those age 15-19 to a low of 2 percent among those age 45-49. The converse is true for women deciding alone how their money is spent: older women are the most likely to decide alone how their earnings are spent (66 percent), while young women are the least likely to decide money matters alone (26 percent). Joint decisionmaking on women's earnings is the most consistent arrangement over time, with approximately 42 percent of women age 20-44 making joint decisions on money. In the youngest age group, a full half of women make joint decisions about their earnings, and in the oldest age group, only 32 percent make joint decisions.

Among currently married women, 47 percent report that they alone make the decisions about how their earnings will be used, while 50 percent say that decisions are made jointly with their husband or partner. As expected, women who are divorced, separated, or widowed largely decide money matters for themselves (90 percent). Women with no children are the least likely to make independent decisions on the use of their earnings and are also much more likely than other women to have someone making the decision for them; this is probably due to the young age of women who have not yet had children, since marriage in Cambodia is almost universal, as is childbearing.

Urban women are more likely than rural women to make money decisions alone (56 percent compared with 47 percent). Regional differences also exist, with the proportion of women making independent decisions ranging from 64 percent in Preah Vihear/Stueng Traeng/Kracheh and Siem Reab/Otdar Mean Chey to 32 percent in Kandal and Kampong Chhnang. There is little pattern of decisionmaking by educational attainment.

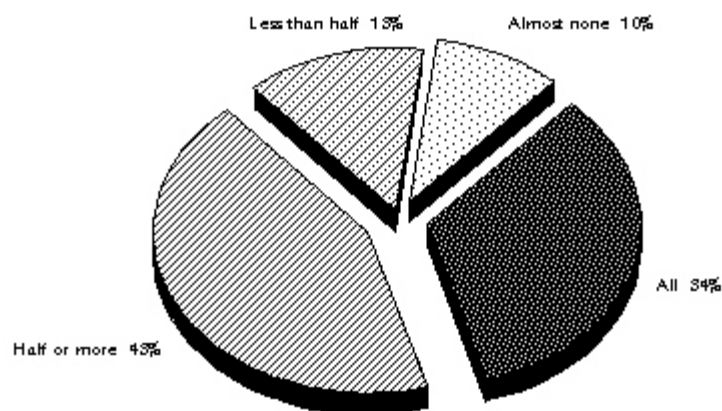
Table 4.8 also displays the percent distribution of women receiving cash earnings by the proportion of household expenditures that are met by those earnings (see Figure 4.2). The first fact to note in this table is that most women receiving cash earnings meet half or more of the expenditures of their household (77 percent); this indicates that women are economically equal players within the household. More than one-third of women cover all household expenditures with their earnings (34 percent), and only 23 percent contribute less than half or not at all.

Table 4.8 Decision on use of earnings and contribution of earnings to household expenditures

Percent distribution of women receiving cash earnings by person who decides how earnings are used and by proportion of household expenditures met by earnings, according to background characteristics, Cambodia 2000

Background characteristic	Person who decides how earnings are used					Proportion of household expenditures met by earnings						
	Self only	Jointly	Some-one else	Missing	Total	Almost none	Less than half	Half or more	All	Missing	Total	Number
Age												
15-19	25.8	50.2	24.0	0.0	100.0	11.2	16.6	39.7	32.1	0.4	100.0	1,007
20-24	44.1	42.0	13.6	0.2	100.0	7.1	18.3	47.8	26.4	0.4	100.0	697
25-29	49.4	43.0	7.5	0.1	100.0	7.8	14.6	46.6	31.0	0.1	100.0	728
30-34	52.9	43.5	3.4	0.3	100.0	8.6	11.4	46.3	33.5	0.1	100.0	885
35-39	56.6	41.4	2.1	0.0	100.0	12.3	11.5	39.4	36.7	0.0	100.0	862
40-44	56.2	40.8	2.9	0.1	100.0	9.6	10.6	42.6	37.0	0.3	100.0	763
45-49	66.2	32.1	1.6	0.0	100.0	9.7	10.2	39.0	40.6	0.5	100.0	597
Current marital status												
Never married	35.6	43.0	21.3	0.0	100.0	10.7	15.9	42.3	30.8	0.3	100.0	1,624
Currently married	47.0	49.6	3.3	0.1	100.0	8.8	12.7	44.7	33.5	0.3	100.0	3,246
Divorced, separated, widowed	90.2	6.8	2.9	0.1	100.0	11.0	10.7	36.3	42.0	0.0	100.0	668
Number of living children												
0	38.4	42.4	19.1	0.0	100.0	10.8	16.1	43.0	29.9	0.2	100.0	1,943
1-2	57.3	39.4	3.1	0.2	100.0	8.0	13.4	46.4	32.0	0.1	100.0	1,344
3-4	54.2	42.8	2.8	0.2	100.0	8.2	11.5	41.4	38.6	0.2	100.0	1,238
5+	51.1	46.6	2.3	0.0	100.0	11.1	10.7	40.2	37.5	0.4	100.0	1,013
Residence												
Urban	55.6	35.2	9.0	0.1	100.0	12.4	13.9	43.3	30.3	0.1	100.0	1,381
Rural	46.6	44.9	8.3	0.1	100.0	8.7	13.2	42.9	34.9	0.3	100.0	4,158
Region												
Banteay Mean Chey	48.9	40.2	10.9	0.0	100.0	8.7	12.1	33.4	45.8	0.0	100.0	184
Kampong Cham	62.5	33.5	4.0	0.0	100.0	4.9	25.4	37.7	31.6	0.4	100.0	597
Kampong Chhnang	32.2	59.3	8.3	0.3	100.0	0.5	11.8	72.0	15.6	0.1	100.0	423
Kampong Spueu	44.3	41.6	14.1	0.0	100.0	0.3	2.2	42.3	55.2	0.0	100.0	338
Kampong Thum	38.5	46.3	15.2	0.0	100.0	5.7	30.2	44.2	19.9	0.0	100.0	387
Kandal	32.4	62.7	4.9	0.0	100.0	28.8	1.6	31.4	38.2	0.0	100.0	837
Kaoh Kong	38.2	49.1	12.5	0.2	100.0	0.7	8.9	70.6	19.5	0.3	100.0	57
Phnom Penh	62.4	30.0	7.5	0.0	100.0	11.0	12.1	35.3	41.6	0.1	100.0	1,072
Prey Veang	43.6	42.3	14.1	0.0	100.0	3.5	14.2	28.5	50.4	3.5	100.0	128
Pousat	49.5	35.3	15.2	0.0	100.0	11.1	11.1	52.0	25.7	0.0	100.0	98
Svay Rieng	41.4	41.2	16.4	0.9	100.0	3.0	16.5	40.4	40.1	0.0	100.0	110
Takaev	45.9	44.4	9.8	0.0	100.0	2.8	14.8	59.1	23.3	0.0	100.0	164
Bat Dambang/Krong Pailin	41.6	55.2	3.2	0.0	100.0	3.3	16.9	59.1	20.3	0.3	100.0	414
Kampot/Krong Kaeb/Krong Preah Sihanouk	59.1	30.9	10.0	0.0	100.0	11.8	18.5	52.8	16.9	0.0	100.0	333
Preah Vihear/Stueng	64.3	21.5	13.0	1.2	100.0	11.0	22.9	36.1	28.8	1.2	100.0	98
Traeng/Kracheh	56.4	36.8	5.1	1.7	100.0	10.8	15.5	55.6	16.4	1.7	100.0	25
Mondol Kiri/Rotanak Kiri	63.6	25.0	10.6	0.8	100.0	4.8	6.6	34.6	53.3	0.8	100.0	275
Siem Reab/Otdar Mean Chey												
Education												
No education	49.9	42.1	7.9	0.1	100.0	9.4	11.2	35.3	43.9	0.1	100.0	1,315
Primary	47.8	43.7	8.3	0.1	100.0	10.1	13.2	44.8	31.6	0.4	100.0	2,967
Secondary and higher	50.2	40.2	9.5	0.1	100.0	8.6	16.3	46.8	28.2	0.1	100.0	1,257
Total	48.9	42.5	8.5	0.1	100.0	9.6	13.4	43.0	33.8	0.3	100.0	5,539

Figure 4.2 Distribution of Women Receiving Cash Earnings by the Proportion of Household Expenditures Met by Those Earnings



CDHS 2000

There is no clear pattern in terms of household expenditures met by earnings by either age or number of living children. Those who are widowed, divorced, or separated are most likely to support their household expenditures on their income alone (42 percent), while never-married and currently married women are more similar in terms of covering all household expenditures with their earnings (31 and 34 percent, respectively). Rural women are more likely than urban women to contribute the funds for all household expenditures (35 percent compared with 30 percent), and urban women are somewhat more likely than rural women to contribute the smallest proportion to household expenditures (12 percent compared with 9 percent). Women in Kampong Spueu and Siem Reab/Otdar Mean Chey are the most likely to cover all household expenditures with their earnings (55 percent and 53 percent, respectively), while women in Kampong Chhnang and Mondol Kiri/Rotanak Kiri are the least likely (16 percent).

Notably, an increase in education predicts a decrease in the amount of household expenditures a woman's earnings pay for. Seventy-nine percent of women with no education pay for half or more of their family's expenditures, 76 percent of women with primary education only pay for half or more, and 75 percent of women with secondary education or higher pay for half or more of the household expenditures. The pattern is even more pronounced when considering only the women who pay for all of the household needs: 44 percent of women with no education, 32 percent of women with primary education, and 28 percent of women with secondary or higher education pay for all household expenditures.

Table 4.9 rearranges the features of Table 4.8, showing the percent distribution of women who receive cash earnings by person who decides how earnings are used, and marital status, according to the proportion of household expenditures met by women's earnings. Overall, married women are about equally likely to decide money matters for themselves (48 percent) as they are to make a joint decision about their income with their husband (47 percent). Rarely do married women decide jointly with someone else or do their husband or another person decide alone what will be done with the woman's earnings (5 percent in total).

Women decide solely how their earnings will be spent more than 50 percent of the time if they meet all of the family's expenditures or less than half of the household expenditures. However, if they earn half or more (but less than all) of the money used for household expenditures, they are more likely to decide jointly with their husband how their money should be spent.

Women who are not married are likely to be found in the youngest age group (15-19) because most women marry around the age of 20 in Cambodia (see Table 8.2 and 8.3). Even so, 51 percent of these women decide for themselves how their money will be spent, being even more likely to have sole control over their income when they meet smaller proportions of household expenditures (57 percent). Thirty-three percent of unmarried women decide jointly with someone else how their earnings will be spent (probably a parent), and the earnings of 16 percent of women are decided by someone else only (again, probably a parent).

Table 4.9 Control over earnings according to contribution to household expenditures

Percent distribution of women who receive cash earnings by person who decides how earnings are used and marital status, according to perceived proportion of household expenditures met by earnings, Cambodia 2000

Proportion of household expenditures met by earnings	Married or separated					Not married						
	Self only	Jointly with:		Some-one else only	Total	Number of women	Self only	Jointly with someone else	Some-one else only	Total	Number of women	
		Husband	Some-one else									Husband only
Almost none	52.4	44.7	1.1	1.0	0.8	100.0	289	57.2	23.8	19.0	100.0	244
Less than half	59.7	33.3	1.9	3.3	1.8	100.0	418	57.3	26.8	15.9	100.0	326
Half or more	38.1	56.4	1.7	2.7	1.0	100.0	1,461	48.3	37.5	14.1	100.0	919
All	54.5	40.4	2.7	1.4	1.0	100.0	1,112	49.1	32.9	17.9	100.0	757
Total	47.5	47.1	2.0	2.2	1.1	100.0	3,289	50.8	33.0	16.2	100.0	2,250

Note: Total includes 9 married and 5 unmarried women for whom information on proportion of household expenditures met by earnings is not available.

Fertility is an important component of population dynamics and plays a large role in changing the size and structure of the population of a given area. Cambodia is a country in which population size and structure were severely impacted during the reign of the Khmer Rouge (1975-1979), both in terms of excess mortality and reduced fertility. The CDHS 2000 generates detailed information on fertility and fertility patterns over time that will be useful for the formulation of policies and the design of programs.

Current fertility levels, trends and differentials in fertility, cumulative fertility, birth intervals, age at first birth, and adolescent fertility are examined in this chapter. The fertility indicators presented in this chapter are based on information obtained from women age 15-49. All women who were interviewed in the CDHS 2000 survey were asked to report on the total number of daughters and sons to whom they had ever given birth in their lifetime. To encourage complete reporting, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was then obtained, including information on the sex, date of birth,¹ and survival status of each child, and the age at death for dead children.

5.1 CURRENT FERTILITY

The current level of fertility refers to data on live births occurring in the five-year period preceding the survey, which were obtained from the birth history data. From this information, reported measures of fertility were computed and presented in Table 5.1. The reported summary measures include age-specific fertility rates (ASFRs),² total fertility rates (TFRs) for women age 15-44 and 15-49, the general fertility rate (GFR), and the crude birth rate (CBR). The ASFRs represent the number of live births per 1,000 women in the age group. The TFR is the number of children a woman would have by the end of her reproductive years if she experienced the current rate of childbearing at each age of her childbearing years assuming that she survived to the end of her reproductive age. The GFR is defined as the annual number of births per 1,000 women age 15-44, and the CBR refers to the total number of births occurring in a given year per 1,000 population.

¹ During the data collection, interviewers only recorded Gregorian month and year of birth. However, when the respondent only knew the Khmer month and year of birth, the interviewers used a chart specially designed for the CDHS survey, allowing conversion of the Khmer dates into Gregorian dates.

² Numerators of the ASFRs are calculated by summing the number of live births that occurred in the period 1-60 months preceding the survey (determined by the date of interview and the date of birth of the child) and classifying them by age (in five-year groups) of the mother at the time of birth (determined by the mother's birth date). The denominators of the rates are the number of woman-years lived in each of the specified five-year age groups during the 1-60 months preceding the survey.

Cambodian women will give birth to 1.2 children by age 25 and 2.2 children by age 30.³ An examination of the age-specific fertility rates by urban-rural residence indicates that the age pattern of fertility shows little variation, with rates higher in every age group for rural women, compared with urban women (Figure 5.1). In the age group 15-19, fertility rates are low in urban and rural areas (respectively, 38 and 54 per 1,000 women). Rates then increase drastically to reach a maximum of 171 per 1,000 urban women and 210 per 1,000 rural women in the age group 25-29. Above the age of 29, rates decline slowly but regularly in both urban and rural areas.

Table 5.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the five years preceding the survey, by residence, Cambodia 2000

Age group	Residence		Total
	Urban	Rural	
15-19	38	54	51
20-24	159	198	191
25-29	171	210	203
30-34	136	171	165
35-39	78	125	118
40-44	27	60	55
45-49	3	18	15
TFR 15-49	3.1	4.2	4.0
TFR 15-44	3.1	4.1	3.9
GFR	99	135	129
CBR	23.9	28.3	27.7

Note: Rates are for the period 1-60 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.

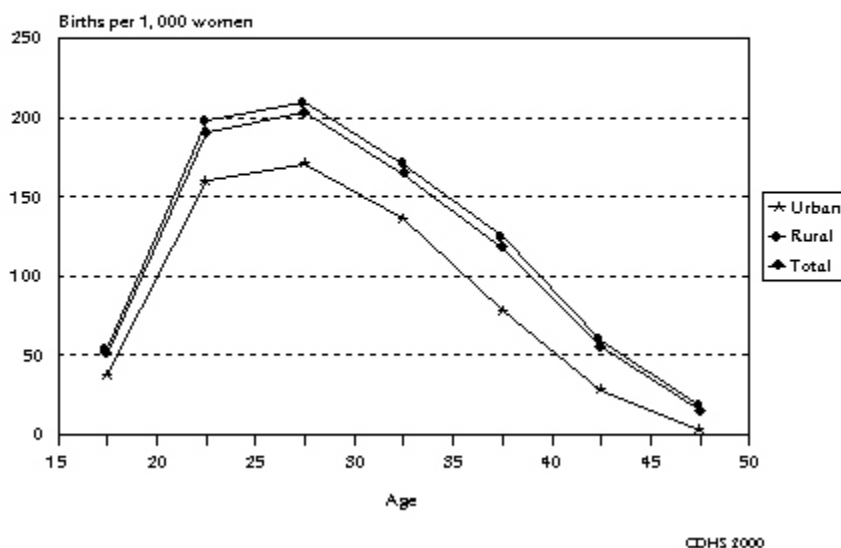
TFR: Total fertility rate for ages 15-49 expressed per woman

GFR: General fertility rate (births ÷ no. of women 15-44) expressed per 1,000 women

CBR: Crude birth rate expressed per 1,000 population

ASFR: Age-specific fertility rate expressed per 1,000 women

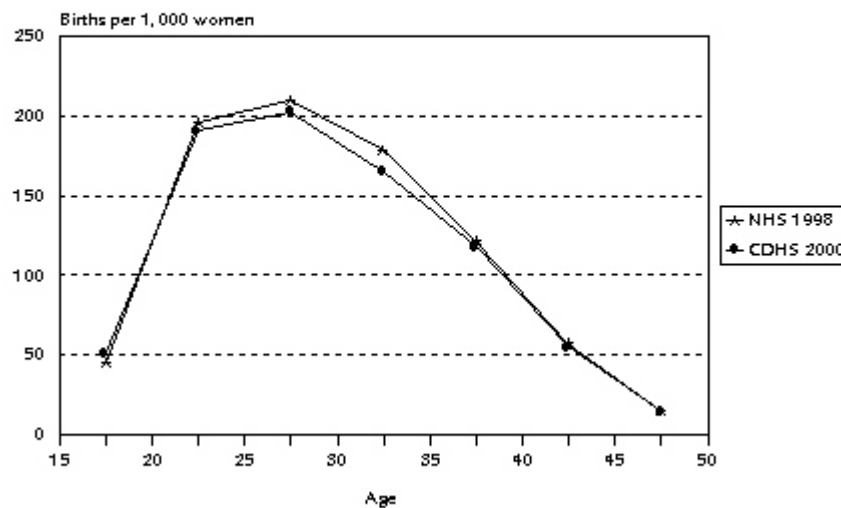
Figure 5.1 Age-Specific Fertility Rates by Urban-Rural Residence



³Calculated as the age-specific fertility rate for women 15-19 plus the age-specific fertility rate for women 20-24, times 5 (to take into account the five-year age group), divided by 1,000.

Figure 5.2 presents the total fertility rate and age-specific fertility rates from the CDHS 2000 along with results from the 1998 National Health Survey. The ASFRs from the two surveys are consistent, and the TFRs are almost identical (4.1 in 1998 versus 4.0 in 2000). Although the comparison of the two surveys is not useful in terms of looking at trends over time, the fact that the data are highly consistent between the two different data collection efforts lends support to the validity of the CDHS 2000.

**Figure 5.2 Age-Specific Fertility Rates
NHS 1998 and CDHS 2000**



The CBR, also presented in Table 5.1, is 27.7 per 1,000 population and the the GFR is 129 per 1,000 women age 15-44 for the five years prior to the survey. Like the TFR, the GFR and CBR also vary by urban-rural residence. Thus, with a GFR of 135 per 1,000, the average annual number of births to rural women is one-third higher than that for urban women (99 per 1,000). The CBR in the rural areas (28.3 per 1,000) is somewhat higher than the CBR in the urban areas (23.9 per 1,000).

5.2 FERTILITY DIFFERENTIALS

Table 5.2 presents differentials in fertility by urban-rural residence, region, and education. The figures show large differences in the level of fertility among regions. Fertility is lowest in Phnom Penh, the capital city, at 2.1 children per woman and highest in Mondol Kiri/Rotanak Kiri at 6.3 children per woman. For the remaining 15 designated regions, fertility ranges between 3.5 and 4.6. Female education is known to be inversely related to fertility, although the effect of education on fertility is variable. With a TFR of 4.5, a woman with no education has only about 0.5 children more than a woman with primary education (4.0), and about 1.5 children more than a woman with at least some secondary education (2.9).

The mean number of children ever born to women by the end of their reproductive period, age 40-49, is a measure of the average completed fertility (Table 5.2). If fertility remained constant in the recent past and the reported data on both children ever born and births during the five years preceding the survey are reasonably accurate, the average completed fertility should be equal to the total fertility rate. Comparison of the mean number of children ever born to women age 40-49 with the TFR suggests a decline of about 1.5 children per woman in Cambodia over the past 10 to 15 years. Fertility has declined both in urban and rural areas at approximately the same pace: the difference between the level of completed and current fertility is almost the same in urban areas (1.4) as in rural areas (1.3). The largest declines in fertility are observed in Phnom Penh and Prey Veang, with a decrease of almost 2 children per woman, while Mondol Kiri/Rotanak Kiri actually demonstrates an increase in fertility of about half a child per woman.

Table 5.2 also shows the percentage of women who reported being pregnant at the time of the survey. This percentage may be underreported since women may not be aware of a pregnancy, especially at the very early stages, and some women who are early in the pregnancy may not want to reveal that they are pregnant. Six percent of women reported that they were pregnant at the time of the survey. As for the TFR, the proportion of pregnant women is lower in urban areas (5 percent)

Table 5.2 Fertility by background characteristics

Total fertility rate for the five years preceding the survey, percentage currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Cambodia 2000

Background characteristic	Total fertility rate	Percentage currently pregnant ¹	Mean number of children ever born to women age 40-49
Residence			
Urban	3.1	5.0	4.5
Rural	4.2	6.7	5.5
Region			
Banteay Mean Chey	4.3	7.1	5.4
Kampong Cham	4.2	6.3	5.7
Kampong Chhnang	5.2	7.8	5.1
Kampong Spueu	4.6	8.2	5.6
Kampong Thum	4.3	6.6	5.6
Kandal	3.8	5.7	5.3
Kaoh Kong	4.3	9.6	5.2
Phnom Penh	2.1	3.8	4.0
Prey Veang	3.5	6.2	5.4
Pousat	4.9	9.1	5.5
Svay Rieng	3.5	5.5	4.9
Takaev	4.1	5.8	5.8
Bat Dambang/Krong Pailin	4.5	6.6	5.8
Kampot/Krong Kaeb/Krong Preah Sihanouk	4.1	5.8	5.6
Preah Vihear/Stueng Traeng/Kracheh	4.6	7.7	5.6
Mondol Kiri/Rotanak Kiri	6.3	11.4	5.7
Siem Reab/Otdar Mean Chey	4.6	7.4	5.7
Education			
No education	4.5	7.4	5.6
Primary	4.0	6.2	5.4
Secondary and higher	2.9	5.2	3.9
Specific project area			
CDCP	3.8	6.2	5.3
BHSP	4.0	6.2	5.5
Total	4.0	6.4	5.4

¹ Women age 15-49 years

than in rural areas (7 percent). Phnom Penh has the lowest proportion currently pregnant (4 percent), whereas the highest proportion pregnant is reported in Mondol Kiri/Rotanak Kiri (11 percent). For differentials in current pregnancy status by level of education, the pattern is similar to that observed for the TFR.

5.3 TRENDS IN FERTILITY

Table 5.3 shows the reported ASFRs for five-year periods preceding the CDHS 2000. Data on age-specific fertility rates provide further evidence of a decline in fertility, as already noticed in the NHS 1998, and supporting findings to that effect from Table 5.2.⁴

Using a cross-sectional perspective, it is observed that fertility is low among those age 15-19, and peak fertility is achieved at age 25-29 for each of the five-year periods represented in the table. Fertility declines are proportionately greater for women age 25 and older than for younger women. This pattern is common in populations experiencing a fertility decline. It occurs during a fertility transition when older women, who may be more likely to have reached their desired family size, make a greater effort to limit their births than do younger women, who are likely to have not yet achieved their desired family size. Looking at the fertility of the women born in 1970-1974 (now age 30-34) from a cohort perspective, the age-specific fertility rates are significantly lower than those of women born in 1964-1969 (now age 35-39), particularly when comparing women in the 30-34 age group: those born between 1965 and 1969 had an ASFR of 239, while those born between 1970 and 1974 had an ASFR of 165.

5.4 CHILDREN EVER BORN AND LIVING

The level of lifetime fertility is based on information about the total number of children ever born. From this information, the mean number of children born per woman (average parity) in a given age is computed to measure the cumulative experience from the beginning of the reproductive time to the age at the time of the survey. Table 5.4 shows the percent distribution of women by the number of children ever born and the mean number of children ever born and living, by five-year age groups, for all women and currently married women. The mean number of children ever born increases with women's age. From an average of 0.06 children among adolescents, the average parity is 2.0 children among women in their late twenties and 5.6 children among those at the end of their reproductive years.

Table 5.3 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, Cambodia 2000

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	51	90	71	82
20-24	191	243	232	276
25-29	203	271	281	307
30-34	165	239	261	[290]
35-39	118	187	[226]	-
40-44	55	[98]	-	-
45-49	[15]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

⁴ In Table 5.3, figures in brackets represent partial fertility rates due to truncation. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey because these women were 50 years and older at the time of the survey and were not interviewed.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born (CEB), and mean number of children ever born and mean number of living children, according to age group, Cambodia 2000

Age	Number of children ever born											Total	Number	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	94.4	5.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,618	0.06	0.06
20-24	56.2	21.7	15.8	5.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,982	0.73	0.65
25-29	20.4	16.8	26.5	20.9	10.8	3.4	0.9	0.2	0.0	0.0	0.0	100.0	2,118	2.00	1.77
30-34	12.1	8.6	17.3	20.5	19.1	11.7	7.1	2.5	0.6	0.2	0.3	100.0	2,195	3.10	2.74
35-39	8.1	6.5	7.6	13.7	15.8	15.1	14.3	9.8	4.9	2.3	1.8	100.0	2,168	4.35	3.74
40-44	7.6	4.3	7.6	9.6	11.8	12.1	12.0	12.2	10.7	5.7	6.4	100.0	1,847	5.17	4.38
45-49	8.2	4.0	5.5	6.8	9.3	13.1	11.4	13.2	11.5	8.5	8.7	100.0	1,425	5.61	4.53
Total	36.9	9.3	10.8	10.2	8.8	6.9	5.7	4.5	3.1	1.8	1.9	100.0	15,351	2.58	2.21
CURRENTLY MARRIED WOMEN															
15-19	57.5	38.7	3.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	438	0.47	0.42
20-24	20.2	38.3	29.6	10.0	1.9	0.1	0.0	0.0	0.0	0.0	0.0	100.0	1,009	1.35	1.21
25-29	4.5	18.0	32.3	25.8	13.5	4.3	1.2	0.3	0.0	0.0	0.0	100.0	1,612	2.45	2.19
30-34	2.8	6.9	18.3	23.4	22.2	13.7	8.4	2.9	0.7	0.3	0.3	100.0	1,797	3.53	3.13
35-39	1.7	4.7	7.3	13.7	16.7	16.9	16.5	11.4	5.9	2.8	2.2	100.0	1,764	4.87	4.19
40-44	2.1	2.6	5.9	8.4	13.0	12.7	13.3	14.3	12.9	6.7	8.1	100.0	1,427	5.83	4.97
45-49	2.1	1.8	4.2	6.5	8.6	13.2	14.3	15.3	12.8	10.3	11.0	100.0	1,024	6.35	5.20
Total	7.3	12.2	15.7	15.1	13.3	10.3	8.8	6.8	4.8	2.8	3.0	100.0	9,071	3.89	3.35

The distribution of women by the number of children ever born shows that childbearing in Cambodia starts around the age of marriage (median age at first marriage is 20; see Table 8.3). It is also evident that there is little extramarital childbearing: among all teenage women, only 6 percent have given birth to at least one child, while among currently married teenage women, 43 percent have begun childbearing; if rates of extramarital childbearing were high, higher rates of childbearing among all teenage women would be expected.

The CDHS results also indicate that childlessness decreases with increasing age, particularly for those who are married. Among teenage women, 94 percent of all women and 58 percent of currently married women are childless. However, among women in their late twenties, the proportion decreases to 20 percent for all women and only 5 percent for currently married women. The percentage childless among currently married women at the end of the reproductive period (age 45-49) is a rough estimate of primary infertility: married women with no live births are likely to be unable to bear children at all. The results indicate that primary infertility among currently married women is low (2 percent).

5.5 BIRTH INTERVALS

Longer birth intervals contribute to improved health status of both mother and child. Infants born within two years of the birth of a previous child experience a higher risk of health problems. Table 5.5 shows the distribution of second and higher order births that occurred in the five years preceding the survey by the number of months since the previous birth, according to background variables.

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, according to demographic and background characteristics, Cambodia 2000

Characteristic	Months since preceding birth					Total	Median number of months since preceding birth	Number
	7-17	18-23	24-35	36-47	48+			
Age								
15-19	*	*	*	*	*	*	*	19
20-29	10.1	16.1	35.0	21.1	17.7	100.0	31.3	2,244
30-39	7.6	11.6	33.6	21.4	25.9	100.0	34.9	3,327
40-49	7.1	9.5	29.6	21.6	32.2	100.0	37.3	1,022
Birth order								
2-3	8.8	13.2	31.5	20.7	25.8	100.0	34.7	2,956
4-6	7.2	12.4	34.5	22.2	23.6	100.0	34.1	2,393
7 +	9.8	12.7	35.9	20.9	20.7	100.0	32.7	1,262
Sex of preceding birth								
Male	9.0	13.3	33.6	20.8	23.3	100.0	33.8	3,384
Female	7.8	12.4	33.2	21.7	24.9	100.0	34.5	3,228
Survival of preceding birth								
Dead	23.3	19.4	30.1	11.6	15.6	100.0	25.6	875
Living	6.1	11.8	33.9	22.7	25.3	100.0	35.2	5,736
Residence								
Urban	6.7	15.4	32.8	20.6	24.5	100.0	33.8	812
Rural	8.7	12.5	33.5	21.4	24.0	100.0	34.2	5,800
Region								
Banteay Mean Chey	9.4	12.2	29.7	19.9	28.8	100.0	35.2	335
Kampong Cham	9.5	9.5	31.6	22.3	27.1	100.0	35.6	928
Kampong Chhnang	11.3	17.6	37.2	17.4	16.5	100.0	29.5	333
Kampong Spueu	5.2	13.1	32.3	25.4	24.1	100.0	35.8	389
Kampong Thum	5.8	14.8	35.1	22.1	22.3	100.0	33.7	363
Kandal	8.0	9.1	35.6	24.3	23.0	100.0	35.1	564
Kaoh Kong	7.1	12.8	29.5	23.7	27.0	100.0	36.3	76
Phnom Penh	6.1	10.8	29.9	14.9	38.3	100.0	37.7	309
Prey Veang	7.6	8.3	28.4	24.9	30.9	100.0	37.6	455
Pousat	11.1	14.3	33.7	20.7	20.2	100.0	32.5	238
Svay Rieng	9.5	13.7	33.9	18.7	24.2	100.0	32.7	263
Takaev	7.3	13.3	32.6	22.6	24.2	100.0	34.7	475
Bat Dambang/Krong Pailin	10.2	13.1	35.1	21.4	20.1	100.0	32.4	520
Kampot/Krong Kaeb/ Krong Preah Sihanouk	8.2	13.2	39.1	16.6	22.9	100.0	32.9	430
Preah Vihear/Stueng Traeng/ Kracheh	7.1	15.4	32.4	21.6	23.6	100.0	34.3	310
Mondol Kiri/Rotanak Kiri	11.8	19.8	33.7	19.7	15.0	100.0	29.3	117
Siem Reap/Otdar Mean Chey	8.7	18.8	35.9	20.4	16.2	100.0	30.5	507
Education								
No education	8.9	12.7	33.8	21.8	22.8	100.0	33.8	2,274
Primary	8.4	12.7	34.1	20.9	23.9	100.0	34.1	3,561
Secondary and higher	7.2	13.5	29.3	21.3	28.6	100.0	36.0	777
Specific project area								
CDCP	7.7	13.5	34.5	21.2	23.1	100.0	33.8	3,372
BHSP	9.0	11.6	32.2	21.8	25.5	100.0	34.8	2,454
Total	8.4	12.8	33.4	21.3	24.0	100.0	34.1	6,612

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

In Cambodia, 21 percent of non-first births occur less than 24 months after the preceding birth, with 8 percent occurring less than 18 months after the preceding birth. Forty-five percent of women give birth at least 36 months after the previous birth. The overall median birth interval is 34 months. This means that half of the births in Cambodia occur close to three years after the previous birth. Data also indicate that birth intervals increase with increasing age of women. Twenty-six percent of births to women age 20-29 occurred within two years of the previous birth,

compared with only 17 percent of births among women age 40 and above. The median birth interval rises from 31.3 months among women age 20-29 to 37.3 months among women age 40 and above. Birth intervals do not seem to vary much by birth order, sex of the preceding child, or urban-rural residence. However, the birth interval does vary markedly by the survival status of the preceding birth. Nearly four times as many births occurred within an 18-month interval when the preceding child had died than when it was still alive. The median birth interval is 35.2 months if the previous child is living, but falls to 25.6 months if the preceding child is dead. Median birth intervals are shortest in Mondol Kiri/Rotanak Kiri (29.3) and Kampong Chhnang (29.5) and are significantly longer in Phnom Penh and Prey Veang (37.7 and 37.6, respectively). Mothers with more education have slightly longer birth intervals: those with no education have a median birth interval of 33.8 months, while those with secondary and higher levels of education have a median birth interval of 36.0 months. These results are consistent with the level of fertility: birth intervals are shorter when the TFR is high and longer when the TFR is low.

5.6 AGE AT FIRST BIRTH

Early age at childbearing has a detrimental effect on the health of both mother and child. It also indicates a longer reproductive span and higher level of fertility. Table 5.6 presents the distribution of women by age at first birth and median age at first birth according to age at the time of the survey.

As previously noted, childbearing in Cambodia generally begins around the time of marriage; the median age at first marriage for Cambodian women is 20 years (please see Table 8.3). The median age at first birth is 21.5 years for the youngest cohort (age 25-29) for whom a median could be computed and varies between 21 and 22 for the older cohorts, with no discernible pattern in variation.

Current age	No birth	Age at first birth						Total	Number	Median age at first birth
		<15	15-17	18-19	20-21	22-24	25+			
15-19	94.4	0.1	2.8	2.6	NA	NA	NA	100.0	3,618	a
20-24	56.2	0.5	11.6	16.6	11.3	3.8	NA	100.0	1,982	a
25-29	20.4	0.5	9.9	22.1	22.2	17.6	7.2	100.0	2,118	21.5
30-34	12.1	0.5	8.1	18.0	20.7	24.2	16.4	100.0	2,195	22.3
35-39	8.1	0.3	9.7	22.7	21.7	17.6	19.9	100.0	2,168	21.6
40-44	7.6	0.5	9.3	11.9	24.3	27.8	18.7	100.0	1,847	22.4
45-49	8.2	0.8	14.2	22.3	17.8	13.6	23.1	100.0	1,425	21.4

NA = Not applicable
^a Omitted in populations where less than 50 percent of the women in the age group \times to $\times + 4$ have had a birth by age \times

Of particular interest in this table are the ages at first birth for women in the 40-44 and 45-49 age groups. Women who were age 40-44 at the time of the survey were between the ages of 15 and 20 during the Khmer Rouge rule. Their age at first birth was apparently deferred from age 18 or 19 (at which age only 12 percent of women had their first birth, compared with other cohorts in which 16 to 22 percent of first births took place at this age) to the age of 20-24, at which age they are overrepresented in terms of age at first birth compared with other cohorts. The same

phenomenon is apparent for women who were age 45-49 at the time of the CDHS 2000. These women were also at their prime childbearing age during the reign of the Khmer Rouge (age 20-25). Although some of the women from this cohort were able to begin childbearing by age 18-19, this cohort's fertility was interrupted at age 20-24. Only 18 percent of this cohort had their first birth at age 20-21, and even fewer (14 percent) had their first birth at age 22-24; these proportions are significantly different than those of other cohorts. Again, it is likely that many of the women of this cohort deferred their first birth until older ages: they are overrepresented among those who had their first birth at age 25 or above (23 percent).

Table 5.7 presents the median age at first birth by background characteristics and age at the time of the survey. The median age at first birth is higher in urban areas than in rural areas, with a difference of one year among women age 25-49. Phnom Penh (lowest TFR) has the highest median age at first birth (23.1), while Mondol Kiri/Rotanak Kiri (highest TFR) has the lowest median age at first birth (21.0). There is a positive relationship between educational attainment and median age at first birth, but there is only a difference when a woman has secondary or higher

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	22.3	23.3	21.9	22.9	21.4	22.6
Rural	21.4	22.1	21.5	22.3	21.4	21.7
Region						
Banteay Mean Chey	21.0	21.1	21.4	22.9	21.2	21.4
Kampong Cham	21.5	22.3	21.3	21.3	20.4	21.4
Kampong Chhnang	21.6	22.8	22.5	23.4	22.3	22.6
Kampong Spueu	21.1	22.3	21.2	22.7	22.1	21.9
Kampong Thum	21.1	22.5	21.5	22.2	21.9	21.8
Kandal	22.2	22.4	21.2	22.5	22.4	22.2
Kaoh Kong	20.8	21.4	21.8	23.2	22.2	21.6
Phnom Penh	22.6	24.0	23.3	23.2	21.7	23.1
Prey Veang	21.0	21.8	21.3	22.2	20.5	21.4
Pousat	21.6	22.3	21.9	23.3	21.9	22.2
Svay Rieng	21.2	21.6	21.3	22.5	20.6	21.4
Takaev	22.2	22.4	21.5	22.1	21.1	21.9
Bat Dambang/Krong Pailin	23.4	23.2	22.2	22.2	21.5	22.5
Kampot/Krong Kaeb/ Krong Preah Sihanouk	21.0	21.3	20.9	22.7	20.5	21.3
Preah Vihear/Stueng Traeng/ Kracheh	20.8	22.1	22.7	22.1	22.1	21.8
Mondol Kiri/Rotanak Kiri	20.8	20.6	21.0	21.2	23.2	21.0
Siem Reab/Otdar Mean Chey	21.8	22.3	21.5	21.8	20.8	21.8
Education						
No education	20.8	21.9	21.4	22.5	21.2	21.6
Primary	21.6	21.9	21.4	22.2	21.4	21.7
Secondary and higher	22.2	23.7	25.4	23.4	23.1	23.3
Specific project area						
CDCP	21.8	22.5	21.7	22.6	21.7	22.1
BHSP	21.5	22.2	21.4	22.0	20.8	21.6
All women	21.5	22.3	21.6	22.4	21.4	21.9

education; there is no difference in age at first birth between women with no education and women with primary education. Comparing the median age at first birth for all women across age groups, it is again apparent that the cohort that is currently age 40-44 deferred its median age at first birth when compared with those women born in the previous and later cohorts. These women, who were age 15-20 during the Khmer Rouge rule, have a median age at first birth that is about one year older (median age 22.4) than cohorts age 35-39 (median age 21.6) and 45-49 (median age 21.4) at the time of the survey.

5.7 TEENAGE PREGNANCY AND MOTHERHOOD

In addition to the relatively higher level of pregnancy complications among young mothers, due to physiological immaturity, inexperience with child care practices also influences maternal and infant health. Moreover, an early start to childbearing greatly reduces the educational and employment opportunities of women and is associated with higher levels of fertility. Table 5.8 presents the proportion of women age 15-19 (teenagers) who are mothers or pregnant with their first child, by background characteristics.

A small percentage of women age 15-19 have become mothers or are currently pregnant with their first child (8 percent). The percentage of women who have begun childbearing increases with age, from less than 1 percent among women age 15 to 22 percent among women age 19. There is a small difference (1 percentage point) between urban and rural girls, with 7 percent of urban girls beginning childbearing in their teens and 8 percent of rural girls also beginning their childbearing under the age of 20. Disaggregation by level of education does show significant differences, where 13 percent of uneducated girls have begun childbearing, compared with 9 percent of girls who have a primary school education and 6 percent of girls with secondary or higher education. It seems that in the Cambodian context, any education is associated with lower proportions of early childbearing. Childbearing among young women is lowest in Phnom Penh (4 percent) and highest in Mondol Kiri/Rotanak Kiri (20 percent).

Table 5.8 Teenage pregnancy and motherhood

Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Cambodia 2000

Background characteristic	Percentage who are:		Percentage who have begun child-bearing	Number
	Mothers	Pregnant with first child		
Age				
15	0.3	0.5	0.7	764
16	1.0	0.7	1.7	765
17	2.5	3.0	5.6	734
18	9.2	4.1	13.2	695
19	16.5	5.5	22.0	660
Residence				
Urban	5.2	2.0	7.2	754
Rural	5.7	2.8	8.5	2,863
Region				
Banteay Mean Chey	10.3	4.0	14.3	158
Kampong Cham	4.6	3.3	7.8	368
Kampong Chhnang	5.1	2.4	7.5	147
Kampong Spueu	10.5	2.9	13.4	133
Kampong Thum	3.0	2.5	5.4	173
Kandal	4.1	4.0	8.1	370
Kaoh Kong	9.9	4.4	14.3	30
Phnom Penh	2.3	1.9	4.2	465
Prey Veaeang	7.7	3.3	10.9	274
Pousat	6.0	1.8	7.8	102
Svay Rieng	6.1	3.1	9.1	147
Takaev	6.4	1.8	8.2	253
Bat Dambang/Krong Pailin	6.2	2.1	8.4	280
Kampot/Krong Kaeb/ Krong Preah Sihanouk	5.6	3.3	8.9	273
Preah Vihear/Stueng				
Traeng/Kracheh	5.8	1.4	7.1	131
Mondol Kiri/Rotanak Kiri	14.5	5.2	19.8	33
Siem Reab/Otdar Mean Chey	5.5	1.1	6.5	280
Education				
No education	9.6	3.7	13.3	679
Primary	4.9	2.6	7.5	2,048
Secondary and higher	4.0	1.9	5.9	890
Specific project area				
CDCP	4.4	2.5	6.9	2,092
BHSP	5.9	2.8	8.7	1,190
Total	5.6	2.7	8.2	3,618

In many countries in the developing world, there are very few data on the practice of abortion. It is illegal in a number of countries, has negative social connotations, and is often considered against religious principles. The practice of abortion was liberalized in Cambodia in 1997. Prior to 1997, abortion was legal only for the purpose of saving the life of the woman (United Nations, 1992). According to the 1997 law, abortions can be conducted only by medical doctors, medical practitioners, or midwives authorized by the Ministry of Public Health and can only be carried out in a hospital, health center, health clinic, or maternity ward. Abortions can only be legally conducted before the 12th week of pregnancy unless one of a number of specific conditions are met, which permit later abortions (Kram [legal decree] dated November 12, 1997 on abortion).

To better understand abortion, questions on the practice were integrated into the reproductive section of the CDHS 2000 questionnaire. The results present an estimation of the frequency of abortion over women's lifetimes, and of the frequency of abortion in the past five years. In general, because of the stigma associated with abortion, the number of abortions reported are considered to be underestimates. In Cambodia, it is socially unacceptable for an unmarried woman to admit to having sexual intercourse. For this reason, any cases of abortion in unmarried women were most likely not recorded. The percentage of women age 15-19 and of unmarried women who have had an abortion is considered to be an underestimation. Women age 15-19 represent almost 25 percent of the sample of women interviewed. If there were a significant number of unreported abortions in this age group, this would bias the overall estimate of frequency of abortion in the population. This is another reason the prevalence of abortion in the CDHS 2000 can be considered an underestimate.

6.1 NUMBER OF INDUCED ABORTIONS

Table 6.1 presents the percent distribution of women by the number of induced abortions over a lifetime by background characteristics. In Cambodia, 5 percent of women age 15-49 reported one or more abortions in their lifetime. Ninety-five percent of women have never had an abortion. Less than 1 percent of women had missing information on induced abortion.

The occurrence of abortion increases with the age of the woman. No women age 15-19 reported an abortion. The rate of women who report having an abortion increases to 4 percent of women age 25-29 years. Seven percent of women aged 30 to 34 report having had an abortion, and 8 percent of women age 35-49 years have had an abortion. Abortion is found to be more common among women with more living children. Almost no women without children reported having an abortion. Seven percent of women with two living children have had an abortion. For those who had four or more children, the percentage of women who had an abortion ranged between 8 and 9 percent.

Table 6.1 Number of induced abortions

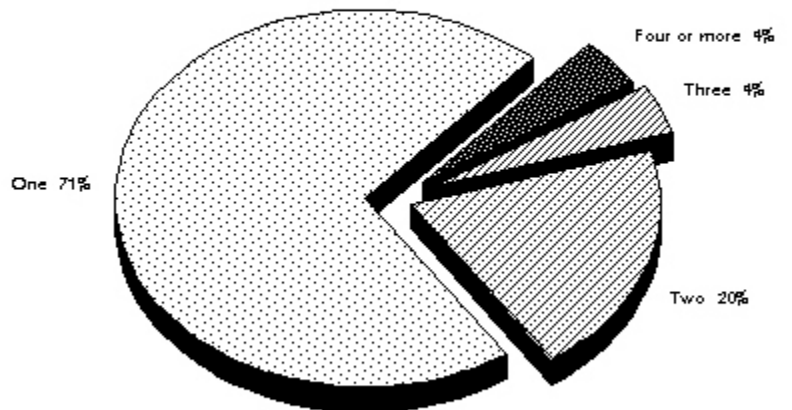
Percent distribution of women by number of induced abortions during their lifetime, according to background characteristics, Cambodia 2000

Background characteristic	No abortion	Number of abortions					Total	Number
		1	2	3	4+	Missing		
Age								
15-19	100.0	0.0	0.0	0.0	0.0	0.0	100.0	3,618
20-24	98.4	1.5	0.1	0.0	0.0	0.0	100.0	1,982
25-29	95.8	3.0	0.6	0.1	0.0	0.4	100.0	2,118
30-34	92.8	5.3	0.9	0.1	0.2	0.6	100.0	2,195
35-39	90.9	5.6	1.7	0.2	0.5	1.1	100.0	2,168
40-44	91.0	5.2	1.8	0.9	0.3	0.8	100.0	1,847
45-49	91.3	4.7	1.7	0.7	0.4	1.2	100.0	1,425
Number of living children (including current pregnancy)								
0	99.8	0.2	0.1	0.0	0.0	0.0	100.0	5,576
1	96.0	3.3	0.6	0.0	0.0	0.1	100.0	1,648
2	93.3	5.0	1.2	0.1	0.0	0.2	100.0	1,972
3	92.0	4.7	1.5	0.2	0.4	1.1	100.0	1,783
4	89.6	6.3	1.5	0.8	0.4	1.4	100.0	1,437
5	91.1	5.4	1.8	0.4	0.4	0.9	100.0	1,130
6+	91.0	5.4	1.5	0.6	0.4	1.2	100.0	1,805
Residence								
Urban	94.4	3.4	0.9	0.3	0.3	0.7	100.0	2,692
Rural	95.2	3.2	0.9	0.2	0.1	0.5	100.0	12,659
Region								
Banteay Mean Chey	95.3	2.6	0.8	0.0	0.1	1.2	100.0	672
Kampong Cham	93.8	4.5	1.2	0.1	0.1	0.2	100.0	1,961
Kampong Chhnang	97.4	1.6	0.5	0.2	0.2	0.1	100.0	583
Kampong Spueu	99.3	0.4	0.1	0.0	0.0	0.1	100.0	725
Kampong Thum	98.8	0.5	0.0	0.0	0.0	0.7	100.0	777
Kandal	95.3	3.6	0.2	0.5	0.1	0.2	100.0	1,469
Kaoh Kong	96.0	2.9	0.2	0.1	0.1	0.7	100.0	147
Phnom Penh	93.3	4.8	1.0	0.4	0.2	0.3	100.0	1,657
Prey Veang	96.1	2.7	0.5	0.4	0.1	0.2	100.0	1,272
Pousat	95.2	3.2	0.9	0.1	0.0	0.6	100.0	433
Svay Rieng	89.7	6.6	1.5	0.1	0.5	1.6	100.0	688
Takaev	96.7	2.3	0.3	0.1	0.0	0.5	100.0	1,107
Bat Dambang/Krong Pailin	90.0	6.1	2.7	0.5	0.6	0.0	100.0	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	95.7	1.6	0.9	0.1	0.0	1.7	100.0	999
Preah Vihear/Stueng								
Traeng/Kracheh	94.9	2.9	1.2	0.5	0.1	0.4	100.0	582
Mondol Kiri/Rotanak Kiri	98.0	1.0	0.2	0.2	0.3	0.4	100.0	161
Siem Reap/Otdar Mean Chey	96.6	1.5	0.8	0.0	0.4	0.7	100.0	1,036
Education								
No education	95.4	2.8	1.0	0.2	0.2	0.4	100.0	4,338
Primary	94.4	3.7	0.8	0.2	0.2	0.7	100.0	8,376
Secondary and higher	96.2	2.6	0.6	0.4	0.1	0.0	100.0	2,637
Specific project area								
CDCP	95.2	3.0	0.9	0.3	0.2	0.4	100.0	8,319
BHSP	94.8	3.6	0.8	0.2	0.2	0.5	100.0	5,610
Total	95.0	3.2	0.9	0.2	0.2	0.5	100.0	15,351

The practice of abortion does not vary by urban-rural residence, although it does vary by region. The lowest percentages of women reporting having an abortion are in Kampong Spueu and Kampong Thum (1 percent each). The highest percentages of women having abortions were found in Svay Rieng (9 percent) and Bat Dambang/Krong Pailin (10 percent). There are slight variations in the rates of abortion by level of education but these differences are not significant.

Figure 6.1 presents the distribution of women who report at least one induced abortion by the number of abortions. It is evident that the majority of women who have had an abortion report only one. Seventy-one percent of women who have ever had an abortion report having had only one induced abortion. Twenty percent of women report having two abortions. Four percent report three abortions, and 4 percent report having four or more induced abortions.

Figure 6.1 Distribution of Number of Abortions for Women Who Report Having an Induced Abortion



CDHS 2000

6.2 ABORTION IN THE PAST FIVE YEARS

To obtain information on the recent practice of abortion and to avoid interviewing women about events in the distant past when recall can be difficult, the detailed questions about abortion were asked only of those women who have had an abortion since 1995.

Table 6.2 shows that 2 percent of women report having an abortion in the past five years. Similar relationships are found in the data from the past five years compared with data during the lifetime. The percentage of women who have had an abortion increases with age and number of living children. There is no significant difference by urban-rural residence or by education in the past five years compared with the data from the lifetime.

The other data presented in Table 6.2 and in the next tables refers only to the most recent abortion of women who have had at least one abortion in the past five years. The number of cases is relatively small, so the categories of the background variables were regrouped. The outcomes for educational level, for example, were collapsed into categories of no education and primary education and higher. Despite these changes, the percentages expressed according to different sociodemographic variables are not always statistically significant and should be interpreted with care.

Table 6.2 Pregnancy duration at the time of abortion

Percentage of women who had at least one induced abortion in the past five years and percent distribution of the last abortion during the past five years by pregnancy duration at the time of abortion, according to background characteristics, Cambodia 2000

Background characteristic	Percentage with at least one abortion	Total number of women	Pregnancy duration at the time of last abortion			Number of women with abortion in the past 5 years
			<2 months	2-4 months	5+ months	
Age group						
15-34	1.5	9,912	20.2	69.9	10.0	146
35-49	2.6	5,439	17.0	75.0	8.0	144
Number of living children (including current pregnancy)						
0-2	1.1	9,197	22.0	69.1	8.9	98
3-4	3.1	3,220	22.8	67.4	9.8	100
5+	3.1	2,934	10.4	81.4	8.1	93
Residence						
Urban	2.1	2,692	17.3	78.9	3.8	57
Rural	1.8	12,659	18.9	70.9	10.2	234
Education						
No education	1.8	4,338	20.3	67.4	12.3	78
Primary and higher	1.9	11,013	17.9	74.3	7.8	212
Total	1.9	15,351	18.6	72.5	9.0	290

Pregnancy duration at the time of abortion

Table 6.2 also presents information on the pregnancy duration at the time of abortion. This time is measured from the estimated date of conception. The majority of women who had an abortion in the last five years had that abortion between the second and fourth month of pregnancy (73 percent). Nineteen percent of women had the abortion within the first two months of pregnancy. Only 9 percent of women had the abortion at five months or more of pregnancy. The differences in pregnancy duration at the time of abortion are evident between the number of living children, residence, and educational level of the woman. Women with five or more children were less likely to have an abortion in the first two months (10 percent), compared with women with 0-2 children and 3-4 children (22 percent and 23 percent, respectively). More rural women have abortions at five months of pregnancy or later (10 percent) than urban women (4 percent). More educated women have abortions slightly earlier (74 percent) in the second to fourth month of pregnancy than less educated women (67 percent). This finding is supported by a lower percentage of educated women having abortions in the fifth month or later, compared with uneducated women (12 percent and 8 percent, respectively).

Abortion procedure

From women who reported having at least one abortion in the past five years, information was collected on the type of procedure used for the last abortion (Table 6.3). The most common methods were dilation and curettage (41 percent) and vacuum aspiration (35 percent). Traditi-

Table 6.3 Abortion procedure

Percent distribution of the last abortion during the past five years by procedure used, according to background characteristics, Cambodia 2000

Background characteristic	Type of procedure					Total	Number of women with abortion in the past 5 years
	Dilation and curettage	Aspiration	Caesarean section	Traditional method	Other/ don't know/ missing		
Age group							
15-34	31.0	47.2	0.0	8.8	13.0	100.0	146
35-49	51.9	23.4	0.8	9.6	14.2	100.0	144
Pregnancy duration at the time of last abortion							
<2 months	32.8	49.6	0.0	3.7	13.9	100.0	54
2-4 months	45.8	34.3	0.0	10.5	9.5	100.0	210
5+ months	(24.1)	(14.9)	(4.6)	(10.0)	(46.4)	100.0	26
Residence							
Urban	40.4	46.3	0.0	6.2	7.0	100.0	57
Rural	41.7	32.7	0.5	9.9	15.2	100.0	234
Education							
No education	41.0	26.2	1.5	14.5	16.7	100.0	78
Primary and higher	41.6	38.7	0.0	7.2	12.5	100.0	212
Total	41.4	35.4	0.4	9.2	13.6	100.0	290

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

tional methods were used in only 9 percent of the cases. Other/don't know/missing was the third most common response (14 percent). This presents a small but significant gap in information on abortion procedures. The most obvious difference in types of procedures used and background variables is between dilation and curettage and vacuum aspiration and the age of the woman. Older women are more likely to use the dilation and curettage method (52 percent) than younger women (31 percent), and younger women more commonly use the vacuum aspiration method (47 percent) than older women (23 percent).

Women with no education and rural women are more likely to use traditional methods (15 percent and 10 percent, respectively) than more educated women (7 percent) and urban women (6 percent).

Place of abortion

Women who had an abortion in the past 5 years were asked where the most recent abortion was initiated in order to determine whether it occurred in a health facility (Table 6.4). Forty-one percent of the abortions occurred in a private health facility. The second most common location was the public health facility (27 percent). This shows that two-thirds of abortion procedures in the past five years occurred in a health facility. The remaining one-third of abortions took place in the respondent's home (23 percent) and other homes (7 percent). It is twice as common for women with no education to have the abortion procedure in their home (38 percent) than women with a primary or higher educational level (17 percent).

Table 6.4 Place of abortion

Percent distribution of the last abortion during the past five years by place of abortion, according to background characteristics, Cambodia 2000

Background characteristic	Place of abortion					Total	Number of women with abortion in the past 5 years
	Public health facility	Private health facility	Respondent's home	Other home	Other/missing		
Age group							
15-34	26.9	47.2	18.9	4.6	2.3	100.0	146
35-49	26.1	35.2	26.9	9.0	2.8	100.0	144
Pregnancy duration at the time of last abortion							
<2 months	7.5	57.4	23.6	9.7	1.8	100.0	54
2-4 months	27.3	39.6	23.4	6.7	3.1	100.0	210
5+ months	(59.8)	(21.2)	(17.3)	(1.7)	(0.0)	100.0	26
Procedure							
Dilation and curettage	31.1	48.3	14.3	5.7	0.6	100.0	120
Aspiration	29.6	54.1	6.0	4.6	5.7	100.0	103
Traditional method	(0.0)	(9.4)	(64.9)	(22.9)	(2.8)	100.0	27
Other/don't know/missing	(22.5)	(9.3)	(63.4)	(4.8)	(0.0)	100.0	41
Residence							
Urban	10.6	71.6	13.2	4.2	0.4	100.0	57
Rural	30.4	33.9	25.2	7.4	3.1	100.0	234
Education							
No education	25.3	30.4	37.9	6.1	0.3	100.0	78
Primary and higher	27.0	45.3	17.3	7.0	3.4	100.0	212
Total	26.5	41.3	22.9	6.8	2.5	100.0	290

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

Persons who helped with the abortion

The last question on abortion asked of women having abortions in the past five years recorded the person(s) who helped with the last abortion. In cases in which different types of persons helped with the abortion, only the most qualified is presented in Table 6.5. Eighty-two percent of women stated that they had received help from a doctor, a midwife, or other health worker. Eight percent received help from a traditional birth attendant or Kru Khmer, and 9 percent did not receive help from anyone during the procedure. Urban women were more likely to have help from a trained professional (89 percent), compared with rural women (80 percent). Rural women were more likely to have help from no one (10 percent) during their abortion, compared with urban women (4 percent).

Table 6.5 Persons who helped with abortion

Percent distribution of the last abortion during the past five years by the most qualified person who helped with the abortion, according to background characteristics, Cambodia 2000

Background characteristic	Persons who helped with last abortion					Total	Number of women with abortion in the past 5 years
	Doctor/ midwife/ other health worker	Traditional birth attendant/ Kru Khmer	Relative/ friends/ other	No one	Missing		
Age group							
15-34	82.5	9.0	1.3	6.4	0.7	100.0	146
35-49	80.9	5.9	0.8	12.3	0.0	100.0	144
Pregnancy duration at the time of last abortion							
<2 months	79.0	2.4	2.4	16.2	0.0	100.0	54
2-4 months	81.1	8.7	0.8	8.8	0.5	100.0	210
5+ months	(92.1)	(7.9)	(0.0)	(0.0)	(0.0)	100.0	26
Procedure							
Dilation and curettage	96.9	0.5	1.0	0.8	0.9	100.0	120
Aspiration	98.0	0.0	1.3	0.7	0.0	100.0	103
Traditional method	(9.4)	(67.4)	(2.2)	(21.0)	(0.0)	100.0	27
Other/don't know/missing	(43.1)	(7.9)	(0.0)	(49.0)	(0.0)	100.0	41
Residence							
Urban	89.0	5.4	0.0	3.7	1.9	100.0	57
Rural	79.9	8.0	1.3	10.8	0.0	100.0	234
Education							
No education	68.9	15.0	3.9	10.8	1.4	100.0	78
Primary and higher	86.4	4.7	0.0	8.8	0.0	100.0	212
Total	81.7	7.5	1.1	9.4	0.4	100.0	290

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

Information on knowledge of family planning methods provides a measure of the level of awareness of contraception in the population and indicates the success of information, education, and communication (IEC) programs. In addition, knowledge of at least one method and a positive attitude toward contraception is a prerequisite for the use of contraception.

Information collected in the CDHS 2000 on the levels and trends of ever use and current use of family planning are presented in this chapter, as well as information on knowledge, behavior, and attitudes toward family planning methods. Exposure to media messages about family planning is also discussed.

7.1 KNOWLEDGE OF CONTRACEPTION

The level of knowledge of contraception was measured in two ways. Respondents were first asked to mention all the methods of contraception that they had heard of. When a respondent failed to mention a particular method spontaneously, the interviewer described the method to see whether the respondent recognized it. Thus, in the CDHS survey, those who have ever heard of a contraceptive method include those who spontaneously report having heard of a method and those who acknowledge having heard about a method after probing.

Information was collected for 12 modern methods—the daily pill, the monthly pill, the IUD, injectables, implants, vaginal methods (including diaphragm/cervical cap and foam/jelly), male and female condoms, female and male sterilization, and emergency contraception—and three traditional methods—lactational amenorrhea method (LAM), periodic abstinence, and withdrawal. In addition, provision was made in the questionnaire to record any other methods mentioned spontaneously, such as folk methods.

Table 7.1 shows the percentage of all women, currently married women, sexually active and inactive unmarried women, and unmarried women with no sexual experience, who have heard about specific contraceptive methods. Although the table presents findings for all married and unmarried women, this report pays particular attention to currently married women since they have the greatest level of exposure to the risk of pregnancy.

Knowledge of contraceptive methods in Cambodia is high, with 92 percent of all women age 15-49 knowing at least one method of family planning. Knowledge is slightly higher among currently married women (96 percent) than among all women. Most women are primarily aware of modern methods, with only 24 percent mentioning traditional methods and almost no one referencing folk methods. Currently married women are the most knowledgeable about contraceptive methods, while unmarried women who have never had sex are the least knowledgeable, although with 85 percent mentioning knowledge of modern methods, they are still a relatively well-informed group.

The daily pill and injectables are the most widely known modern methods, with 90 percent of currently married women having heard of each method. Interestingly, although the same proportion of married women have heard of both methods, data on current method use suggests that among married women, injectables are more popular than the daily pill (7 percent compared with 5 percent; see Table 7.4), making them the most widely used current method of contraception in Cambodia. The next most widely known modern method among currently married women is the IUD (83 percent), followed by the male condom, which is known by 79 percent of married women. Woman-controlled methods are the least recognized modern methods, with female condoms mentioned by 5 percent of married women, emergency contraceptive pills mentioned by 2 percent, and the diaphragm/cervical cap and foam/jelly recognized by less than 1 percent of married women.

Table 7.1 Knowledge of contraceptive methods

Percentage of all women, of currently married women, of sexually active unmarried women, of sexually inactive unmarried women, and of women with no sexual experience who know any contraceptive method, by specific method, Cambodia 2000

Contraceptive method	All women	Cur- rently married women	Unmarried women: ever had sex		Un- married women: never had sex
			Sexually active ¹	Not sexually active ²	
Any method	91.9	95.5	(89.3)	93.4	84.9
Any modern method	91.7	95.1	(89.3)	93.4	84.9
Daily pill	85.0	89.7	(69.5)	88.3	75.5
Monthly pill	70.7	76.5	(49.4)	73.7	59.1
IUD	77.3	83.3	(57.4)	82.5	64.7
Injectables	84.4	89.7	(78.1)	87.1	73.9
Diaphragm/cervical cap	0.4	0.4	(0.0)	0.7	0.3
Foam/jelly	0.4	0.5	(0.0)	0.6	0.2
Female condom	5.0	5.3	(9.8)	5.3	4.4
Male condom	76.1	79.3	(83.3)	78.4	69.3
Female sterilization	56.4	64.0	(49.1)	63.0	40.4
Male sterilization	39.9	47.2	(33.7)	43.3	25.4
Implants	50.0	54.4	(41.5)	51.1	41.6
Emergency contraception	1.7	2.2	(0.0)	2.3	0.5
Any traditional method	24.0	32.5	(27.7)	25.3	7.7
Lactational amenorrhea method	6.8	9.1	(0.0)	7.9	2.2
Periodic abstinence	19.5	26.1	(13.6)	20.8	6.9
Withdrawal	12.9	18.6	(27.7)	15.3	1.5
Folk method	0.3	0.6	(0.0)	0.0	0.0
Mean no. of methods known	5.9	6.5	(5.1)	6.2	4.7
Number	15,351	9,071	23	1,391	4,866

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

¹ Unmarried women who have had sexual intercourse in the one month preceding the survey

² Unmarried women who have ever had sexual intercourse but have *not* had sexual intercourse in the one month preceding the survey

One form of contraception that is rather well known across all groups of women (mentioned by 71 percent of respondents) in Cambodia, but is little known in Western countries, is the monthly pill. This monthly pill is a form of hormonal contraception of Chinese origin and is taken once a month. Few clinical tests or other research have been done on the use or side effects of this pill; however, what little literature there is in English on the monthly pill (most of the scarce literature is in Chinese) suggests that the side effects are significantly worse than those of the daily pill (Fauveau & Phimmason, 1994).

Traditional methods are less widely known than modern methods. Nearly one-third of currently married women reported that they know of at least one traditional method. The most widely known traditional method is periodic abstinence, which is recognized by more than one-fourth of currently married women (26 percent), followed by withdrawal (19 percent) and LAM (9 percent).

The mean number of methods known for all women is 5.9, with currently married women knowing the most methods (6.5), and unmarried women who have never had sexual relations knowing the fewest (4.7).

Table 7.2 shows the percentage of currently married women who know of at least one method of contraception according to background characteristics. The percentage of women who know of at least one modern method is high among all age groups in Cambodia, with a total of 95 percent of all women knowing at least one modern method. Differentials in knowledge of a method by age are not very large; only the youngest group is significantly less knowledgeable than the others.

Differences in method awareness by urban and rural residence are surprisingly small, with 98 percent of urban women and 95 percent of rural women knowing a modern method. Correspondingly, knowledge of methods by region is also generally high, ranging from 91 (Kampong Cham) to 100 percent (Phnom Penh) of women knowing a modern method. Three exceptions include Preah Vihear/Stueng Traeng/Kracheh (84 percent), Banteay Mean Chey (81 percent), and Mondol Kiri/Rotanak Kiri, with the least modern method awareness (56 percent).

Table 7.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women who know at least one contraceptive method and who know at least one modern method, by selected background characteristics, Cambodia 2000

Background characteristic	Knows any method	Knows any modern method	Number
Age			
15-19	89.7	88.9	438
20-24	94.8	94.4	1,009
25-29	94.6	94.1	1,612
30-34	96.9	96.4	1,797
35-39	96.7	96.4	1,764
40-44	96.3	95.9	1,427
45-49	94.5	94.3	1,024
Residence			
Urban	97.9	97.5	1,413
Rural	95.1	94.6	7,658
Region			
Banteay Mean Chey	86.2	81.4	451
Kampong Cham	91.7	90.6	1,212
Kampong Chhnang	99.2	99.2	326
Kampong Spueu	93.1	93.1	469
Kampong Thum	97.3	97.3	435
Kandal	99.8	99.8	832
Kaoh Kong	93.6	93.5	105
Phnom Penh	99.8	99.8	822
Prey Veang	98.6	98.4	769
Pousat	99.4	99.4	276
Svay Rieng	97.2	97.2	436
Takaev	99.8	99.8	676
Bat Dambang/Krong Pailin	98.2	98.2	627
Kampot/Krong Kaeb/Krong Preah Sihanouk	98.5	98.5	586
Preah Vihear/Stueng Traeng/Kracheh	84.3	84.3	358
Mondol Kiri/Rotanak Kiri	56.2	56.1	113
Siem Reab/Otdar Mean Chey	93.5	93.5	578
Education			
No education	92.0	91.3	2,798
Primary	96.6	96.3	4,960
Secondary and higher	98.9	98.4	1,314
Specific project area			
CDCP	96.8	96.8	4,699
BHSP	96.3	95.8	3,419
Total	95.5	95.1	9,071

Table 7.3. Ever use of contraception
 Percentage of all women, and of currently married women who have ever used a contraceptive method, by specific method and for women, by age, Cambodia 2000

Age	Modern method						Traditional method					Number				
	Any method	Any modern method	Daily pill	Monthly pill	IUD	Injectables	Condom	Female sterilization	Other modern method	Any traditional method	LAM		Periodic abstinence	Withdrawal	Folk method	Any trad. or folk method
ALL WOMEN																
15-19	1.7	1.3	0.2	0.3	0.0	0.5	0.2	0.0	0.0	0.5	0.1	0.1	0.3	0.0	0.5	3,618
20-24	13.3	11.5	4.6	2.7	0.4	4.5	0.8	0.0	0.2	2.7	0.4	1.6	1.3	0.1	2.8	1,982
25-29	30.1	25.9	9.6	5.0	2.4	11.3	1.2	0.4	0.5	7.3	0.8	4.1	4.3	0.1	7.3	2,118
30-34	38.7	33.6	10.8	6.4	3.3	16.5	2.0	1.0	0.3	9.9	1.2	5.8	4.8	0.6	10.5	2,195
35-39	39.3	35.4	11.4	6.7	4.1	17.7	2.0	2.2	0.6	8.6	0.8	5.1	4.5	0.2	8.7	2,168
40-44	33.1	28.1	7.8	4.1	3.3	13.7	1.7	2.6	0.5	7.1	0.6	4.0	3.8	0.1	7.1	1,847
45-49	17.7	15.2	4.0	1.6	2.9	6.4	1.3	1.0	0.6	4.1	0.3	3.0	1.6	0.2	4.3	1,425
Total	23.0	19.9	6.4	3.6	2.1	9.4	1.2	0.9	0.3	5.3	0.6	3.1	2.8	0.2	5.5	15,351
CURRENTLY MARRIED WOMEN																
15-19	12.8	9.4	1.9	2.9	0.3	3.7	0.8	0.0	0.0	3.9	1.1	1.0	2.5	0.0	3.9	438
20-24	25.2	21.8	8.9	5.4	0.8	8.8	1.0	0.0	0.3	5.2	0.7	2.9	2.6	0.2	5.4	1,009
25-29	38.4	32.9	12.1	6.2	2.8	14.6	1.5	0.3	0.6	9.2	1.0	5.3	5.4	0.1	9.3	1,612
30-34	46.2	40.2	13.0	7.7	3.9	20.0	2.3	1.1	0.4	11.8	1.3	6.9	5.8	0.7	12.5	1,797
35-39	46.0	41.4	13.3	7.7	4.8	20.8	2.3	2.8	0.7	10.0	1.0	5.8	5.2	0.3	10.0	1,764
40-44	41.4	35.1	9.7	5.1	3.8	17.2	2.2	3.4	0.7	8.9	0.7	5.0	4.8	0.1	9.0	1,427
45-49	22.5	19.3	4.9	2.1	3.6	8.4	1.6	1.1	0.9	5.3	0.4	3.9	1.9	0.3	5.6	1,024
Total	37.4	32.4	10.5	5.9	3.3	15.4	1.8	1.5	0.6	8.7	0.9	5.1	4.5	0.3	8.9	9,071

LAM = Lactational amenorrhea method

Knowledge of modern contraceptive methods increases with education, up to 98 percent among those with secondary or higher education, but is still high among those with no education (91 percent).

7.2 EVER USE OF CONTRACEPTION

Respondents who reported that they had heard of a method of family planning were further asked whether they had ever used a method to avoid or delay pregnancy. Table 7.3 shows the percentage of all women and currently married women who have ever used specific methods of contraception. Twenty-three percent of all women and 37 percent of currently married women age 15-49 reported using a contraceptive method at some time. Modern method use is correspondingly high, with 20 percent of all women and 32 percent of currently married women having used a modern method. Ever use of traditional methods is relatively low: 6 percent of all women and 9 percent of currently married women.

Among currently married women, the most commonly used modern method is injectables (15 percent), followed by the daily and monthly pills (11 percent and 6 percent, respectively). The most commonly used traditional method is periodic abstinence (5 percent), followed closely by withdrawal (5 percent).

Ever use of any method among currently married women rises from 13 percent among the youngest cohort to 46 percent among women age 30-39 and falls slightly to 41 percent among women age 40-44 and 23 percent among women age 45-49. Injectables are the most commonly used method among women regardless of age group, although among those age 20-24, the daily pill is equally used, perhaps due to the desire on the part of women to have greater control over their fertility in these prime childbearing years. Periodic abstinence and withdrawal are the least popular methods among the two youngest age groups and among women age 45-49.

7.3 CURRENT USE OF CONTRACEPTIVE METHODS

This section focuses on the levels, differentials, and trends in the current use of family planning methods. The contraceptive prevalence rate (CPR) for currently married women who are currently using a method of family planning is 24 percent for Cambodia (Table 7.4). The CPR for modern methods is 19 percent, while only 5 percent of currently married women are using traditional methods (Figure 7.1).

There is a marked discrepancy between ever use and current use of family planning. Whereas 37 percent of married women have used a method of family planning at some time, only 24 percent are currently using a method. The difference between ever use and current use is highest for injectables and the daily pill, implying a high discontinuation among the users of these methods.

The most widely used modern methods among currently married women are injectables and daily pills (7 percent and 5 percent, respectively). Condom use was negligible (less than 1 percent) among both currently married women and all women. Periodic abstinence is the most commonly practiced traditional method, used by 3 percent of currently married women, followed by withdrawal at 2 percent.

Table 7.4 Current use of contraception

Percentage of all women, and of currently married women who are currently using a contraceptive method, by specific method and for women, by age, Cambodia 2000

Age	Modern method										Traditional method					Total	Number
	Any method	Any modern method	Daily pill	Monthly pill	IUD	Injectables	Condom	Female sterilization	Other modern method	Any traditional method	LAM	Periodic abstinence	Withdrawal	Folk method	Not currently using		
ALL WOMEN																	
15-19	1.1	0.8	0.1	0.2	0.0	0.4	0.1	0.0	0.0	0.4	0.1	0.0	0.2	0.0	98.9	100.0	3,618
20-24	8.2	6.3	1.8	1.3	0.2	2.4	0.6	0.0	0.0	1.9	0.3	0.8	0.8	0.0	91.8	100.0	1,982
25-29	18.1	14.3	4.4	2.2	1.1	5.4	0.5	0.4	0.3	3.8	0.2	1.9	1.7	0.1	81.9	100.0	2,118
30-34	25.3	19.2	4.9	2.5	1.2	8.5	0.9	1.0	0.2	5.9	0.3	3.2	2.4	0.2	74.7	100.0	2,195
35-39	25.2	20.7	4.6	3.2	1.6	8.1	0.9	2.2	0.1	4.5	0.1	2.1	2.3	0.0	74.8	100.0	2,168
40-44	20.8	15.7	3.0	1.9	1.0	6.1	0.8	2.6	0.1	5.0	0.0	2.9	2.1	0.0	79.2	100.0	1,847
45-49	7.5	5.6	0.9	0.6	0.7	1.4	0.6	1.0	0.4	1.9	0.0	1.5	0.4	0.0	92.5	100.0	1,425
Total	14.2	11.0	2.7	1.6	0.7	4.4	0.6	0.9	0.1	3.1	0.2	1.6	1.3	0.0	85.8	100.0	15,351
CURRENTLY MARRIED WOMEN																	
15-19	8.9	6.0	0.9	1.5	0.0	3.0	0.6	0.0	0.0	3.0	1.1	0.3	1.6	0.0	91.1	100.0	438
20-24	15.5	11.9	3.6	2.6	0.3	4.7	0.6	0.0	0.1	3.7	0.6	1.5	1.6	0.0	84.5	100.0	1,009
25-29	23.4	18.4	5.7	2.9	1.4	7.1	0.7	0.3	0.4	4.9	0.3	2.4	2.2	0.1	76.6	100.0	1,612
30-34	30.8	23.4	6.0	3.1	1.5	10.4	1.1	1.1	0.2	7.2	0.4	3.9	2.9	0.3	69.2	100.0	1,797
35-39	30.9	25.4	5.7	3.9	1.9	9.9	1.1	2.8	0.2	5.5	0.1	2.6	2.8	0.0	69.1	100.0	1,764
40-44	26.8	20.3	3.9	2.4	1.3	7.9	1.1	3.4	0.2	6.5	0.1	3.7	2.7	0.1	73.2	100.0	1,427
45-49	10.2	7.5	1.3	0.9	1.0	1.9	0.8	1.1	0.5	2.7	0.0	2.1	0.6	0.0	89.8	100.0	1,024
Total	23.8	18.5	4.5	2.7	1.3	7.4	0.9	1.5	0.2	5.3	0.3	2.7	2.3	0.1	76.2	100.0	9,071

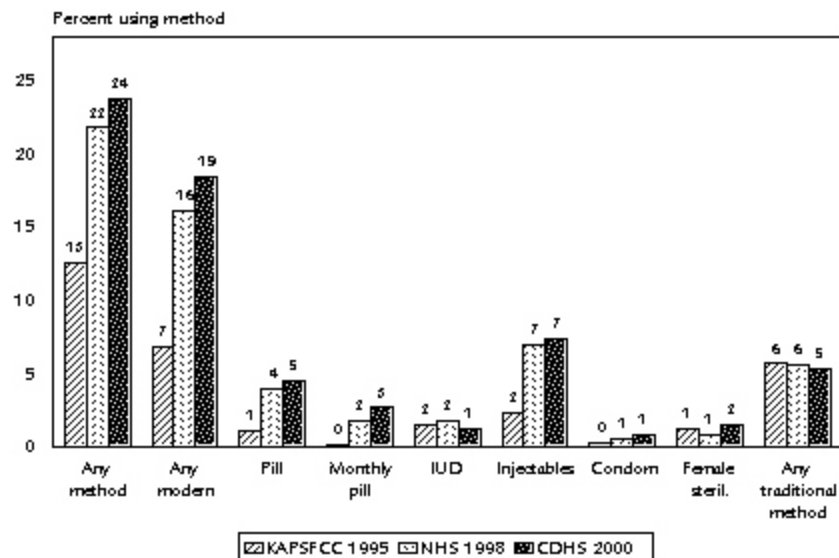
Note: If more than one method is used, only the most effective method is considered in this table.

LAM = Lactational amenorrhea method

Current use varies by women's age and is lowest among currently married women in the youngest and oldest age groups (9 to 10 percent), and the highest among women age 30-39 (31 percent). Injectables are the most popular among women at every age group. Traditional methods, especially periodic abstinence, are most used by women in the age range of 30-44 (6 to 7 percent).

It is possible to observe upward trends in contraceptive use even over a short period in Cambodia. Figure 7.1 shows a comparison of contraceptive use among currently married women age 15-49 at three points in time (data are from KAPSFCC 1995, NHS 1998, and CDHS 2000 survey). The figure demonstrates a large increase in contraceptive method use between 1995 and 1998 and even between 1998 and 2000. Most of the increase is in modern method use, particularly use of injectables and contraceptive pills.

**Figure 7.1 Trends in Contraceptive Use
(Currently Married Women 15-49)**



There are marked differences in current use of contraception by background characteristics among currently married women (Table 7.5 and Figure 7.2). Currently married women in urban areas are 32 percent more likely to use a modern method and twice as likely to use a traditional method as their rural counterparts. Use of any method is highest in Phnom Penh (43 percent), while modern method use is the highest among women in Bat Dambang/Krong Pailin (29 percent), Banteay Mean Chey (29 percent), and Phnom Penh (27 percent) and is the lowest among women in Mondol Kiri/Rotanak Kiri (9 percent).

Education has a positive influence on women's contraceptive use, with use of modern methods increasing with an increase in the level of education. The lowest level of use of any method (19 percent) was observed among uneducated women, and the highest was observed among women with secondary or higher education (35 percent). In general, modern contraceptive use increases with an increase in the number of living children from 1 percent among women with no children to 23 percent among women with three children.

Table 7.5 Current use of contraception by background characteristics

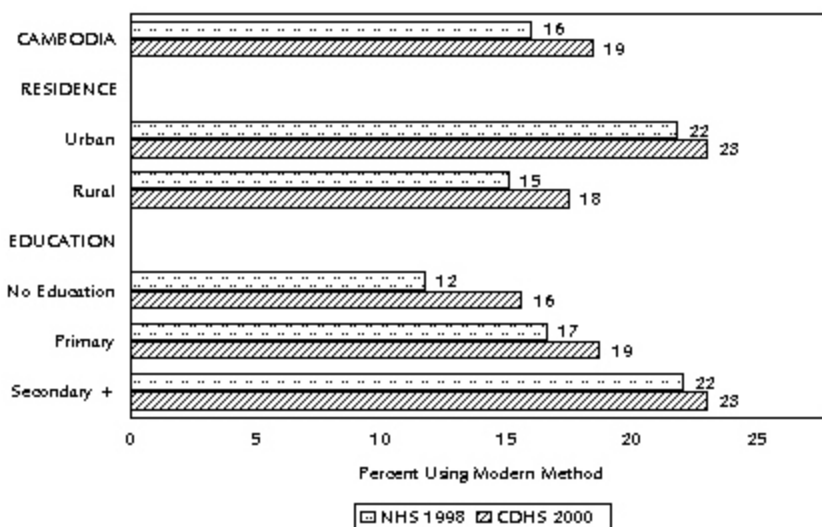
Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Cambodia 2000

Background characteristic	Modern method						Traditional method						Total	Number				
	Any modern method	Daily pill	Monthly pill	IUD	Injectables	Condom	Female sterilization	Other modern method	Any traditional method	LAM	Periodic abstinence	Withdrawal			Other methods	Not currently using		
Residence																		
Urban	32.7	23.2	6.2	3.1	5.3	2.0	3.2	0.5	9.5	0.5	7.3	1.7	0.1	67.3	100.0	1,413		
Rural	22.2	17.6	4.2	0.9	7.7	0.7	1.2	0.2	4.5	0.2	1.9	2.4	0.1	77.8	100.0	7,658		
Region																		
Banteay Mean Chey	36.1	28.9	9.7	5.2	10.1	1.0	1.9	0.6	7.0	4.2	1.0	1.8	0.2	63.9	100.0	451		
Kampong Cham	18.6	13.6	2.0	3.0	5.9	0.8	1.0	0.2	4.7	0.0	2.0	2.6	0.4	81.4	100.0	1,212		
Kampong Chhnang	17.0	14.5	1.7	2.3	7.5	0.3	1.6	0.2	2.5	0.0	0.9	1.7	0.0	83.0	100.0	326		
Kampong Speu	10.9	10.1	1.8	1.4	4.7	0.2	1.5	0.0	0.8	0.0	0.2	0.6	0.0	89.1	100.0	469		
Kampong Thum	19.5	17.8	4.5	1.4	10.2	0.2	0.6	0.6	1.8	0.0	1.6	0.2	0.0	80.5	100.0	435		
Kandal	28.2	16.5	3.5	1.6	7.0	0.8	1.6	0.0	11.7	0.2	2.8	8.7	0.0	71.8	100.0	832		
Kaoh Kong	16.7	14.8	4.8	3.5	3.1	0.5	0.7	0.8	1.8	0.2	0.3	1.4	0.0	83.3	100.0	105		
Phnom Penh	43.3	27.4	6.5	3.0	4.6	3.8	4.1	0.3	15.9	0.0	10.0	5.9	0.0	56.7	100.0	822		
Prey Veaseng	16.9	15.5	3.2	2.3	8.3	0.2	0.8	0.0	1.4	0.0	0.6	0.8	0.0	83.1	100.0	769		
Pousat	17.6	15.1	1.5	4.4	7.6	0.7	0.5	0.1	2.5	0.3	0.4	1.8	0.0	82.4	100.0	276		
Svay Rieng	26.5	22.1	7.7	2.2	8.9	0.9	1.4	0.2	4.3	0.0	3.7	0.6	0.2	73.5	100.0	436		
Takaev	22.5	20.1	6.5	1.6	9.7	0.7	0.7	0.2	2.4	0.0	2.0	0.3	0.0	77.5	100.0	676		
Bat Dambang/ Krong Pailin	35.0	29.0	8.8	5.1	8.1	0.6	3.4	0.8	6.0	0.4	4.6	1.0	0.0	65.0	100.0	627		
Kampot/Krong Kaeb/ Krong Preah	25.0	20.6	5.0	3.8	9.8	0.8	0.8	0.2	4.4	0.2	3.4	0.8	0.0	75.0	100.0	586		
Sihanouk Preah Vihear/Stueng	14.3	12.1	2.8	1.6	5.3	0.6	0.7	0.0	2.2	0.0	1.8	0.4	0.0	85.7	100.0	358		
Traeng/Kracheh Mondol Kiri/ Rotanak Kiri	10.3	9.2	3.0	1.1	3.4	0.0	0.4	0.0	0.8	0.0	0.7	0.1	0.3	89.7	100.0	113		
Siem Reab/Oldar Mean Chey	16.7	14.0	2.6	2.5	7.0	0.5	0.4	0.3	2.6	0.0	1.7	0.9	0.0	83.3	100.0	578		
Education																		
No education	19.3	15.7	3.7	3.1	7.0	0.1	1.0	0.1	3.6	0.5	1.2	1.8	0.1	80.7	100.0	2,798		
Primary	23.4	18.8	4.6	2.7	7.8	0.9	1.5	0.3	4.4	0.2	2.3	2.0	0.1	76.6	100.0	4,960		
Secondary and higher	35.0	23.1	5.8	2.2	6.7	2.5	2.6	0.5	11.9	0.1	7.6	4.2	0.1	65.0	100.0	1,314		
No. of living children																		
0	2.5	1.4	0.6	0.2	0.3	0.2	0.1	0.0	1.0	0.0	0.9	0.2	0.0	97.5	100.0	743		
1	15.3	11.1	2.8	2.1	4.2	0.6	0.4	0.2	4.1	0.6	1.9	1.6	0.1	84.7	100.0	1,285		
2	27.7	18.7	5.2	2.6	6.6	1.0	1.2	0.4	8.8	0.5	4.7	3.6	0.1	72.3	100.0	1,644		
3	30.5	23.3	5.5	3.3	9.2	1.2	2.2	0.3	7.0	0.2	3.4	3.3	0.2	69.5	100.0	1,545		
4+	26.4	22.2	5.1	3.2	9.3	1.0	1.9	0.2	4.2	0.1	2.2	1.9	0.0	73.6	100.0	3,854		
Specific project area																		
CDCP	25.6	18.9	4.3	2.5	7.0	1.1	1.8	0.3	6.8	0.1	3.6	3.1	0.0	74.4	100.0	4,699		
BHSP	19.9	16.5	3.9	2.4	7.7	0.6	1.0	0.1	3.2	0.0	1.8	1.4	0.2	80.1	100.0	3,419		
Total	23.8	18.5	4.5	2.7	7.4	0.9	1.5	0.2	5.3	0.3	2.7	2.3	0.1	76.2	100.0	9,071		

Note: If more than one method is used, only the most effective method is considered in this table.
LAM = Lactational amenorrhea method

Figure 7.2 looks at change over time in current use of modern contraceptive methods by selected background characteristics of women. This figure indicates some unusual changes in contraceptive use that occurred between 1998 and 2000. Not only has there been an increase in modern contraceptive use over a short period, but women from rural areas and uneducated women have also contributed the most to the observed increase.

Figure 7.2 Current Use of Modern Contraceptive Methods by Selected Background Characteristics (Currently Married Women 15-49), NHS 1998 and CDHS 2000



7.4 NUMBER OF CHILDREN AT FIRST USE OF FAMILY PLANNING

Family planning methods may be used for either spacing or limiting births to avoid mistimed or unwanted pregnancies. The 2000 Cambodia DHS survey included questions on the number of living children a woman had when she first used contraception. Table 7.6 shows the percent distribution of ever-married women by number of living children at first use of contraception.

About half of women who had ever used contraception (17 percent of all women) started using when they had one to three children, indicating that they could be using for purposes of spacing or limiting. Half of women who had ever used contraception (16 percent of all women) began using a method when high parity (four or more children) was reached, suggesting an attempt to limit their births.

Few women (1 percent of all women) begin using contraception at parity zero, which would indicate an intention to delay one's first birth. However, the youngest cohort shows an increase in the percentage of women who start using contraception at parities of zero and one. Although these young women are too young to have reached a high parity, this could be a sign of an increasing tendency to delay first births and to practice birth spacing. Another indication of changing patterns of contraceptive use over time can be seen when comparing the mean number of children a given cohort has had when they first began using contraception. The oldest cohorts (age 40-49) of ever-married women report first use after they had a median of five living children, compared with less than one living child among the younger cohorts (age 15-24).

Table 7.6 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at the time of first use of contraception and median number of children at first use, according to current age, Cambodia 2000

Current age	Never used contraception	Number of living children at time of first use of contraception					Total	Number	Median number of children at first use of contraception
		0	1	2	3	4+			
15-19	87.3	3.7	8.3	0.8	0.0	0.0	100.0	467	0.3
20-24	76.5	2.9	10.1	7.8	2.5	0.2	100.0	1,100	0.9
25-29	64.1	1.0	10.8	12.2	7.9	3.8	100.0	1,773	1.5
30-34	57.5	0.9	4.6	9.3	9.8	17.8	100.0	1,996	2.7
35-39	58.1	0.5	2.9	4.4	5.9	28.0	100.0	2,029	3.9
40-44	65.0	0.5	0.8	2.4	3.6	27.7	100.0	1,748	5.0
45-49	81.4	0.1	0.7	1.6	1.9	14.3	100.0	1,354	5.1
Total	66.4	1.0	4.9	6.2	5.4	16.0	100.0	10,467	2.9

7.5 KNOWLEDGE OF FERTILE PERIOD

A basic knowledge of the mechanisms of reproduction is especially useful for the successful practice of coitus-related methods such as periodic abstinence. All women in the CDHS 2000 were asked about their knowledge of a woman's fertile period. The results are presented in Table 7.7 for users and nonusers of periodic abstinence. More than one in two users of periodic abstinence correctly stated that a woman is most likely to become pregnant halfway between two periods. However, a sizable proportion of those reporting use of periodic abstinence (27 percent) stated that they do not know when a woman is most vulnerable to pregnancy, and 11 percent stated that there is no specific time. Of all women, 73 percent did not know when a woman is most susceptible to becoming pregnant, and only 6 percent answered correctly by saying that a woman is most likely to get pregnant halfway between two periods, indicating that there is still a significant need for educating women about their physiology.

Table 7.7 Knowledge of fertile period

Percent distribution of women who use periodic abstinence, of women who do not use periodic abstinence, and of all women, by knowledge of the fertile period during the ovulatory cycle, Cambodia 2000

Perceived fertile period	Users of periodic abstinence	Nonusers of periodic abstinence	All women
During her period	0.0	0.1	0.1
Right after her period has ended	4.5	2.2	2.2
Halfway between two periods	56.0	4.8	5.6
Just before her period begins	1.1	0.5	0.6
No specific time	11.4	19.0	18.9
Don't know	26.9	73.2	72.5
Total	100.0	100.0	100.0
Number	247	15,104	15,351

7.6 SOURCE OF FAMILY PLANNING METHODS

Information on sources of modern contraceptives is useful for family planning managers and implementers. Women who reported using a modern method of contraception at the time of the survey were asked where they obtained the method.

Table 7.8 shows the percent distribution of women currently using modern contraceptive methods according to the source from which they obtained the method. The source of contraceptive varies greatly depending on the type of method. For example, for 92 percent of those who are sterilized, the procedure took place in the public sector, usually in a provincial hospital, whereas only 7 percent were sterilized by a private provider. In contrast, women obtain IUDs¹ in approximately the same proportion from both the public sector and the private medical sector (44 percent and 47 percent, respectively). Those who use injectables, the most widely used method, obtain their injections predominantly in formal settings, from both public (57 percent) and private medical sectors (37 percent). There is little distribution of the injectable methods from other private sources that are more informal.

Table 7.8 Source of contraception

Percent distribution of women currently using modern contraceptive methods by source, according to specific methods, Cambodia 2000

Source of supply	Female sterilization	First source of IUD when started using since 1995	Last source of method			
			Daily pill	Monthly pill	Injectables	Condom
Public sector	92.0	43.8	38.2	13.0	56.6	26.9
Provincial hospital ¹	87.0	17.4	4.0	0.7	3.8	12.2
District hospital	5.0	9.4	7.7	2.4	11.3	2.5
Health center	0.0	11.1	16.4	3.4	24.7	6.9
Khum clinic	0.0	0.0	7.6	3.1	11.8	3.1
Health worker	0.0	0.0	1.5	1.9	1.5	0.0
Midwife	0.0	2.2	0.5	0.3	1.6	0.0
Other public	0.0	3.7	0.4	1.2	1.9	2.2
Private medical sector	3.8	46.9	17.5	16.8	36.6	4.8
Private hospital	2.1	1.7	1.5	0.1	1.4	0.0
Private clinic	1.7	41.5	7.0	10.6	9.7	2.8
Home of trained health worker/nurse	0.0	1.8	7.0	3.6	16.9	0.5
Visit of trained health worker/nurse	0.0	0.0	0.8	1.1	6.0	0.0
Other private medical	0.0	1.8	1.3	1.4	2.6	1.5
Other private	2.7	9.3	43.7	69.5	5.4	64.6
Dedicated drug store	0.0	0.0	16.6	20.3	1.3	36.3
Shop selling drugs/market	0.0	0.0	26.1	45.9	1.3	18.4
Friends/relatives	0.0	2.0	0.4	2.4	0.2	0.0
Other place	2.7	7.3	0.6	0.9	2.7	10.0
Don't know/missing	1.5	0.0	0.6	0.7	1.4	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	141	77	410	248	668	90

¹ Includes Central Hospital in Phnom Penh

However, women do tend to rely significantly on other private sources for the remaining three modern methods: the daily pill (44 percent), the monthly pill (70 percent), and condoms (65 percent). The Chinese monthly pill is particularly interesting, in that it is possible to discern its informal status as a contraceptive method by the source of its distribution. Not only is the monthly pill not often distributed by the public sector (13 percent) or the private medical sector (16 percent), the primary private source of distribution for the pill is from shops that sell drugs or

¹ Source of IUD is the first source, limited to women who started using IUD since 1995.

the market (46 percent), whereas the more formal dedicated drug stores distribute only 20 percent of women's supply. Condoms, one of the less-used methods, are also distributed primarily from other private sources (65 percent), usually obtained from dedicated drug stores (36 percent). The daily pill is more evenly distributed from public-sector and other private-sector sources (38 percent and 44 percent, respectively), with 18 percent of women obtaining their daily pills from the private medical sector.

7.7 INTENTION TO USE FAMILY PLANNING AMONG NONUSERS

An important indicator of the changing demand for family planning is the extent to which nonusers of contraception plan to use family planning in the future. Currently married respondents who were not using contraception at the time of the survey were asked whether they intend to use family planning methods in the future. The results are presented in Table 7.9.

Nearly half (42 percent) of currently married women who were not using any contraception at the time of the survey said that they intend to use family planning methods at some time in the future. More (45 percent) say they do not intend to use, while 13 percent are unsure of their intentions to use. Those with four children or more are most likely to say they do not intend to use (53 percent), while those with one child are most likely to intend to use (50 percent).

Intention	Number of living children ¹					Total
	0	1	2	3	4+	
Intends to use	40.2	49.8	46.7	46.1	36.7	42.3
Does not intend to use	42.7	33.5	38.9	42.5	52.5	44.7
Unsure	17.1	16.6	14.4	11.3	10.7	12.9
Missing	0.0	0.0	0.0	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	508	1,090	1,234	1,120	2,961	6,912

¹ Includes current pregnancy

7.8 REASONS FOR NONUSE

An understanding of the reasons that people do not like to use family planning methods is critical in designing programs that could improve the quality of services or lead to the design of more woman-friendly methods. Table 7.10 presents the main reasons for not intending to use family planning as given by currently married nonusers who do not intend to use a contraceptive method in the future. Health concerns and side effects were the most frequently cited reasons (32 percent), while difficulty getting pregnant was cited by 24 percent of women. The desire for more children was cited by only 10 percent of women as a reason for not intending to use contraception.

The reported reasons for nonuse differ somewhat by age of respondents. Younger women under age 30 are more likely to cite side effects and health concerns than older women age 30-49 (40 percent versus 30 percent). Interestingly, women age 15-29 are twice as likely to be opposed to family planning as women age 30-49 (14 percent versus 7 percent). As would be expected, women age 30-49 were more likely than women age 15-29 to cite menopause or hysterectomy as reasons for not intending to use contraception (7 percent versus less than 1 percent), as well as difficulty getting pregnant (27 percent versus 14 percent).

7.9 PREFERRED METHODS OF CONTRACEPTION FOR FUTURE USE

Future demand for specific methods of family planning can be assessed by asking nonusers who intend to use in the future which methods they would prefer to use. Table 7.11 presents information on method preference among currently married women who are not using a contraceptive method but who say they intend to use in the future.

The majority (34 percent) of women who intend to use in the future would prefer injectables, followed by the daily pill (26 percent). The monthly pill ranked third in preference among women, with 15 percent citing it as the method they would choose for future use. Female sterilization was the least preferred of all methods, both modern and traditional, with less than 1 percent of women intending to use this method. Distribution of methods for future use is identical to the distribution of method currently used.

7.10 EXPOSURE TO FAMILY PLANNING MESSAGES

Radio and television are vehicles for the communication of ideas related to the advantages of family planning. Information on the level of exposure to such media is important for programmers and planners to effectively target population subgroups for information, education, and communication campaigns. In the CDHS 2000, respondents were asked whether they had heard any family planning messages on the radio or seen them on television in the few months preceding the interview.

Table 7.12 shows that the level of exposure to family planning messages through radio and television is high in

Table 7.10 Reason for not intending to use contraception

Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Cambodia 2000

Reason	Age		All ages
	15-29	30-49	
Wants children	14.4	8.5	9.8
Side effects	7.9	5.7	6.2
Health concerns	32.1	24.2	25.9
Lack of knowledge	2.0	1.4	1.6
Opposed to family planning	14.3	7.4	8.9
Others opposed	1.2	1.0	1.1
Infrequent sex/no sex	2.7	9.9	8.3
Difficult to get pregnant	14.3	26.6	23.9
Menopausal/hysterectomy	0.4	6.7	5.3
Other reasons	3.5	5.9	5.4
Don't know/missing	7.3	2.6	3.7
Total	100.0	100.0	100.0
Number	673	2,419	3,092

Table 7.11 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, Cambodia 2000

Preferred method	Intend to use
Daily pill	25.6
Monthly pill	14.7
IUD	3.6
Injectables	33.6
Condom	2.3
Female sterilization	0.8
Implants	2.2
Other modern	0.1
Periodic abstinence	2.4
Withdrawal	1.1
Other traditional/folk	1.0
Missing	12.6
Total	100.0
Number of women	2,926

Cambodia, with 64 percent of women having heard family planning messages on both radio and television; only 21 percent of women had never heard family planning messages from either of these sources. One reason for such wide reception of family planning messages is that access to electronic mass media is comparatively high, with 42 percent of all households owning a radio and 33 percent owning a television (see Table 2.9).

Whereas there is little variation by age among those who have heard family planning messages (about 20 percent in each age group had not heard family planning messages from either television or radio), there is greater contrast in access to family planning messages observed between urban and rural residents. Twenty-two percent of rural women have not heard a family planning message through the electronic media in the few months prior to the survey, compared with 14 percent of urban women.

Table 7.12 Exposure to family planning messages on radio and television

Percent distribution of women by whether or not they have heard a radio or television message about family planning in the last few months prior to the interview, according to background characteristics, Cambodia 2000

Background characteristic	Heard family planning message on radio or television				Total	Number
	Both	Radio only	Television only	Neither		
Age						
15-19	65.0	8.1	5.8	21.1	100.0	3,618
20-24	63.8	10.7	5.2	20.3	100.0	1,982
25-29	63.0	11.8	3.1	22.1	100.0	2,118
30-34	63.4	10.9	4.4	21.4	100.0	2,195
35-39	63.6	9.9	5.3	21.2	100.0	2,168
40-44	63.7	10.8	4.6	20.9	100.0	1,847
45-49	67.8	10.4	4.5	17.1	100.0	1,425
Residence						
Urban	73.0	6.6	6.4	14.0	100.0	2,692
Rural	62.4	10.9	4.5	22.2	100.0	12,659
Region						
Banteay Mean Chey	50.8	4.5	9.8	34.7	100.0	672
Kampong Cham	46.8	16.0	4.3	33.0	100.0	1,961
Kampong Chhnang	55.3	16.5	5.2	23.0	100.0	583
Kampong Spueu	70.1	5.0	5.1	19.8	100.0	725
Kampong Thum	32.2	35.4	1.8	30.5	100.0	777
Kandal	85.6	3.3	5.0	6.1	100.0	1,469
Kaoh Kong	48.1	6.4	9.1	36.2	100.0	147
Phnom Penh	80.9	2.0	10.0	7.1	100.0	1,657
Prey Veang	71.5	1.2	1.9	25.4	100.0	1,272
Pousat	53.2	11.7	5.9	29.2	100.0	433
Svay Rieng	48.1	29.8	3.3	18.8	100.0	688
Takaev	93.1	3.7	1.4	1.8	100.0	1,107
Bat Dambang/Krong Pailin	80.6	6.2	5.9	7.4	100.0	1,084
Kampong Speu/Krong Kracheh	59.8	13.6	4.3	22.2	100.0	999
Preah Vihear/Stueng	23.0	21.9	6.2	48.8	100.0	582
Traeng/Kracheh	21.3	6.4	2.2	70.2	100.0	161
Mondul Kiri/Rotanak Kiri	68.9	6.0	2.0	23.1	100.0	1,036
Siem Reap/Otdar Mean Chey						
Education						
No education	53.8	11.2	4.6	30.3	100.0	4,338
Primary	64.7	10.7	4.6	20.0	100.0	8,376
Secondary and higher	80.1	6.4	5.8	7.6	100.0	2,637
Total	64.2	10.1	4.8	20.8	100.0	15,351

The proportion of respondents who have been exposed to family planning messages on the radio or television varies most significantly across regions. Exposure to the electronic media is highest in Takaev, where 98 percent of women had heard or seen family planning messages on either the radio or television, whereas in Mondol Kiri/Rotanak Kiri, only 30 percent of women had heard these messages.

Education of respondents is closely correlated with media exposure. Thirty percent of women with no formal education had neither heard nor seen family planning messages on the radio or television. Conversely, among women with some secondary education, only 8 percent of women were not exposed to family planning messages on radio or television.

7.11 EXPOSURE TO FAMILY PLANNING MESSAGES THROUGH THE PRINT MEDIA

The survey also collected information on respondents' exposure to family planning messages through the print media. Respondents were asked whether they had been exposed to family planning messages through newspaper or magazine articles, posters, or leaflets during the few months prior to the interview. The results are presented in Table 7.13.

Forty percent of women reported that they had been exposed to family planning messages through the print media. Exposure was not significantly different among the various age groups; however, there is a marked difference in exposure to the print media by place of residence. Women residing in urban areas were 64 percent more likely to have been exposed than their rural counterparts (59 percent versus 36 percent).

As expected, women living in Phnom Penh (70 percent) and Takaev (63 percent) are more likely to have seen family planning messages in the print media than women in the other regions. It is also interesting to note that although women living in Prey Veang have a high level of exposure to electronic media (75 percent; see Table 7.12), they have the lowest level of exposure to family planning messages in print media (12 percent).

Unlike the electronic media, exposure to print media requires a threshold of education, and hence, education has a strong relationship with exposure to the print media. Exposure to family planning messages through the print media increases from a low of 28 percent among women with no formal education to 62 percent among women with secondary education or higher.

Table 7.13 Exposure to family planning messages in print media

Percent distribution of women by whether they saw a message about family planning in the print media (newspaper or magazine, posters, leaflets) in the last few months prior to the interview, according to background characteristics, Cambodia 2000

Background characteristic	Saw family planning message in print media		Total	Number
	Yes	No		
Age				
15-19	41.7	58.3	100.0	3,618
20-24	39.7	60.2	100.0	1,982
25-29	41.2	58.8	100.0	2,118
30-34	38.2	61.8	100.0	2,195
35-39	39.0	60.9	100.0	2,168
40-44	37.3	62.6	100.0	1,847
45-49	41.7	58.2	100.0	1,425
Residence				
Urban	58.9	41.1	100.0	2,692
Rural	35.9	64.0	100.0	12,659
Region				
Banteay Mean Chey	28.0	71.9	100.0	672
Kampong Cham	24.9	75.1	100.0	1,961
Kampong Chhnang	29.4	70.6	100.0	583
Kampong Spueu	44.7	55.3	100.0	725
Kampong Thum	18.5	81.4	100.0	777
Kandal	49.4	50.6	100.0	1,469
Kaoh Kong	39.2	60.7	100.0	147
Phnom Penh	70.0	30.0	100.0	1,657
Prey Veang	12.0	88.0	100.0	1,272
Pousat	33.6	66.4	100.0	433
Svay Rieng	22.5	77.4	100.0	688
Takaev	63.0	37.0	100.0	1,107
Bat Dambang/Krong Pailin	72.1	27.9	100.0	1,084
Kampot/Krong Kaeb/Krong Preah Sihanouk	18.0	81.8	100.0	999
Preah Vihear/Stueng Traeng/Kracheh	18.9	81.0	100.0	582
Mondol Kiri/Rotanak Kiri	18.7	81.3	100.0	161
Siem Reab/Otdar Mean Chey	60.1	39.9	100.0	1,036
Education				
No education	28.0	71.9	100.0	4,338
Primary	39.2	60.8	100.0	8,376
Secondary and higher	62.1	37.9	100.0	2,637
Total	40.0	60.0	100.0	15,351

7.12 DISCUSSION OF FAMILY PLANNING BETWEEN SPOUSES

Spousal communication is an important intermediate step toward eventual adoption and use of contraceptive methods. It is also an indication of the acceptability of family planning. Table 7.14 indicates that one-third of currently married women who know of a contraceptive method did not discuss family planning with their husband in the 12 months prior to the interview.

However, more than half of women had discussed family planning once or twice, while 12 percent said they had talked more often. Women between the ages of 25 and 39 are relatively more likely to have discussed family planning with their husband than other women, with teens and women age 45-49 the least likely to have discussed family planning with their spouse in the past year (52 percent and 55 percent, respectively, have never discussed family planning with their spouse).

Table 7.14 Discussion of family planning with husband

Percent distribution of currently married women who know a contraceptive method by the number of times family planning was discussed with their husband in the past year, according to current age, Cambodia 2000

Age	Number of times family planning was discussed with husband				Total	Number
	Never	Once or twice	Three or more times	Missing		
15-19	52.2	39.2	7.7	0.9	100.0	393
20-24	35.6	52.7	10.8	0.9	100.0	957
25-29	29.0	56.1	13.8	1.1	100.0	1,525
30-34	24.7	59.2	15.5	0.7	100.0	1,741
35-39	28.6	55.8	14.8	0.9	100.0	1,705
40-44	35.1	52.6	10.5	1.7	100.0	1,374
45-49	55.2	37.8	5.7	1.4	100.0	967
Total	33.7	52.9	12.3	1.1	100.0	8,663

7.13 ATTITUDES TOWARD FAMILY PLANNING

Use of effective contraceptive methods is facilitated when couples have a positive attitude toward family planning. Attitudinal data were collected by asking women whether they approve of couples using family planning and what they perceived as their husband's attitude toward family planning. This information is useful in the formulation of family planning policies, since it indicates the extent to which further education and publicity are needed to increase acceptance of family planning. Widespread disapproval of contraception can be a barrier to the adoption of methods. However, in Cambodia, acceptance of family planning is already high.

Table 7.15 shows the percent distribution of currently married women who know of a contraceptive method by attitude toward family planning and perception about their husband's approval. Most women in Cambodia approve of family planning (82 percent), and according to the women's reports, the majority of husbands also approve (70 percent). Sixty-eight percent of women reported that both they and their husband approve of the use of family planning. Eleven percent of women reported that they did not know about their husband's attitude, and another 9 percent were unsure of their own stand on the matter.

Table 7.15 Women's approval of family planning

Percent distribution of currently married women who know of a method of family planning by approval of family planning and their perception of their husband's attitude toward family planning, according to background characteristics, Cambodia 2000

Background characteristic	Both approve	Respondent approves of family planning		Respondent disapproves of family planning		Both disapprove	Respondent unsure	Total	Percentage of respondents who approve	Percentage of husbands who approve	Number
		Husband disapproves	Husband's attitude unknown	Husband approves	Husband's attitude unknown						
Age											
15-19	50.9	7.8	16.7	1.1	2.0	7.7	13.6	100.0	75.5	53.9	393
20-24	63.7	4.9	13.2	0.7	1.0	5.6	10.9	100.0	81.7	64.8	957
25-29	71.1	3.5	8.5	0.9	1.6	6.0	8.4	100.0	83.1	73.1	1,525
30-34	73.7	4.7	6.6	0.6	0.9	5.4	8.0	100.0	85.0	75.7	1,741
35-39	71.1	4.6	8.3	0.7	1.0	5.6	8.5	100.0	84.1	73.2	1,705
40-44	69.5	5.1	8.9	1.0	1.1	5.0	9.4	100.0	83.5	71.7	1,374
45-49	56.2	4.1	14.7	1.6	3.2	9.0	11.3	100.0	74.9	58.8	967
Residence											
Urban	71.9	3.8	9.6	0.8	1.6	6.4	5.9	100.0	85.3	74.0	1,384
Rural	67.2	4.8	9.8	0.9	1.4	5.9	10.0	100.0	81.8	69.3	7,279
Region											
Banteay Mean Chey	67.1	3.2	7.7	1.4	1.6	9.9	8.9	100.0	78.1	68.5	388
Kampong Cham	49.1	8.9	5.4	1.5	0.9	15.2	19.0	100.0	63.4	53.2	1,112
Kampong Chhnang	50.0	9.3	13.8	2.4	3.0	10.0	11.4	100.0	73.1	54.8	323
Kampong Spueu	69.5	3.9	12.9	0.6	1.9	3.2	8.0	100.0	86.2	70.1	436
Kampong Thum	75.9	5.8	7.4	1.0	1.6	6.8	1.4	100.0	89.2	77.1	424
Kandal	87.4	3.4	6.3	0.2	0.7	2.0	0.0	100.0	97.2	87.6	831
Kaoh Kong	37.7	12.6	2.0	3.1	1.9	10.3	32.4	100.0	52.3	43.7	98
Phnom Penh	76.3	1.3	11.1	0.7	0.7	7.3	2.6	100.0	88.7	77.2	821
Prey Veang	87.9	3.0	6.3	0.2	0.2	0.0	2.4	100.0	97.2	88.9	759
Pousat	59.4	6.8	13.5	2.8	5.0	8.0	4.6	100.0	79.7	64.1	274
Svay Rieng	60.5	1.5	11.7	1.1	4.3	5.9	15.2	100.0	73.7	63.5	424
Takaev	63.2	4.3	12.5	0.2	1.6	3.9	14.4	100.0	80.0	64.6	674
Bat Dambang/ Krong Pailin	77.9	2.0	11.1	0.6	0.2	1.7	6.5	100.0	91.0	80.1	615
Kampot/Krong Kaeb/ Krong Preah Sihanouk Preah Vihear/Stueng	70.4	5.7	12.0	0.8	2.4	5.5	3.2	100.0	88.1	71.6	577
Traeng/Kracheh Mondol Kiri/ Rotanak Kiri	54.6	3.4	16.8	0.4	1.9	3.0	19.9	100.0	74.8	56.2	302
Siem Reab/Otdar Mean Chey	58.8	2.8	7.9	0.5	1.4	7.0	21.7	100.0	69.5	61.1	64
Mean Chey	56.3	6.2	12.0	0.9	0.6	4.1	20.0	100.0	74.4	60.2	540
Education											
No education	63.7	4.4	10.8	0.9	1.6	7.0	11.6	100.0	78.9	65.5	2,574
Primary	68.0	5.0	9.6	1.1	1.5	5.7	9.2	100.0	82.5	70.4	4,789
Secondary and higher	76.4	3.7	8.4	0.2	0.6	5.1	5.6	100.0	88.5	77.8	1,300
Total	68.0	4.6	9.7	0.9	1.4	6.0	9.3	100.0	82.3	70.0	8,663

There appears to be little disagreement between spouses on the matter of family planning; however, when there is a perceived disagreement, it is more common for the wife to report that her husband disapproves of family planning and she approves (5 percent) than that the husband approves and she disapproves (1 percent). Kaoh Kong is the only region in which men are much more likely to disapprove of family planning even though the woman approves (13 percent); this region has the lowest proportion of mutual approval of family planning (38 percent).

Urban couples are somewhat more likely to approve of family planning than their rural counterparts, with 72 percent of urban couples approving, compared with 67 percent of rural couples approving. There is also a discernible variation in attitude between regions, although in each region, fewer than 15 percent of women report that both they and their husband disapprove of family planning. Couple disapproval of family planning was highest in Kampong Cham (15 percent), Kaoh Kong (10 percent) and Kampong Chhnang (10 percent). Rates of couple approval were highest in Prey Veang (88 percent), Kandal (87 percent), and Bat Dambang/Krong Pailin (78 percent).

Women's education varies positively with their attitude toward family planning. In instances in which a woman had no formal education, she was least likely to report that both she and her husband approved of family planning; however, the rate of couple approval is nevertheless high at 64 percent. Women with secondary or higher levels of education are most likely to report mutual approval of family planning (76 percent). The more education a woman has, the less likely she is to report that she is unsure of her stance on family planning.

This chapter examines the principal factors, other than contraception, that affect a woman's chances of becoming pregnant. These factors include marriage (including consensual unions), postpartum amenorrhea, abstinence from sexual relations, and termination of exposure to pregnancy. Marriage and sexual relations relate to childbearing, postpartum amenorrhea and abstinence affect the intervals between births, and menopause marks the end of childbearing. More specifically, in this chapter, an in-depth look will be taken at more direct measures of the timing and level of exposure to the risk of pregnancy, that is, the age at first sexual intercourse and the frequency of intercourse. Marriage is a primary indicator, and in most societies marks the beginning of regular exposure of women to the risk of pregnancy. Populations in which the age at first marriage is low also tend to experience early childbearing and high fertility. Furthermore, measures of the onset of menopause are important since the probability of becoming pregnant decreases as women approach the end of their reproductive years and increasing proportions become infecund. Collectively, the above-mentioned factors determine the duration and pace of reproductive activity and hence are important in understanding fertility.

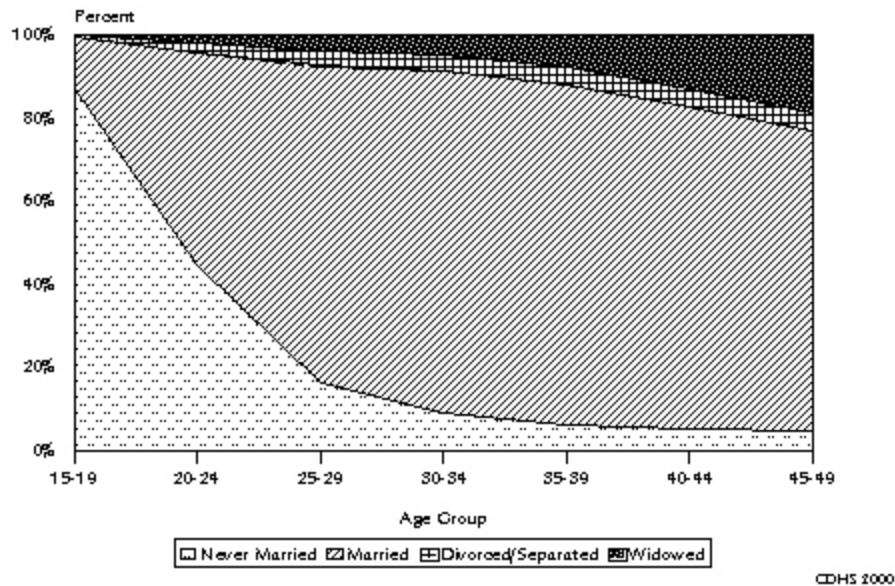
8.1 MARITAL STATUS

Table 8.1 shows the distribution of all women age 15-49 by current marital status. The data broadly indicate that 32 percent of Cambodian women of reproductive age have never been married, and 59 percent are currently married. Divorced and separated women constitute 3 percent of the sample, and 6 percent of the women are widows.

Age	Marital status					Total	Number
	Never married	Married	Widowed	Divorced	Separated		
15-19	87.1	12.1	0.2	0.5	0.1	100.0	3,618
20-24	44.5	50.9	2.1	2.3	0.2	100.0	1,982
25-29	16.3	76.1	4.0	2.6	1.0	100.0	2,118
30-34	9.0	81.9	4.9	3.8	0.3	100.0	2,195
35-39	6.4	81.4	7.8	3.5	1.0	100.0	2,168
40-44	5.4	77.3	13.0	3.7	0.6	100.0	1,847
45-49	5.0	71.8	18.9	3.4	0.9	100.0	1,425
All ages	31.8	59.1	6.0	2.6	0.5	100.0	15,351

Table 8.1 also shows that the proportion of women who have never married decreases predictably with age, to only 5 percent of women having never been married by age 45-49, suggesting near-universal marriage in this society. Consequently, the proportion of currently married women increases with age up to age 30-39 (81 percent) and declines thereafter due to increasing levels of widowhood (Figure 8.1). The high rates of widowhood at the two oldest age groups likely indicates not only expected increases in widowhood due to increased exposure to the risk of widowhood but is probably also attributable in part to the excessive mortality experienced by the male population during the reign of the Khmer Rouge.

Figure 8.1 Current Marital Status by Age



8.2 AGE AT FIRST MARRIAGE

In many societies, age at first marriage marks the point in a woman’s life when childbearing becomes socially acceptable. Women who marry early will on average have a longer exposure to the risk of pregnancy; therefore, early age at first marriage would imply early age at childbearing and a higher level of fertility for the society. Information on age at first marriage was obtained by asking all ever-married respondents the month and year they started living together with their first spouse, or if they could not remember the month and year, the age at which they started living with their first spouse. This information is presented in Table 8.2.

Table 8.2 Age at first marriage
Percentage of women who were first married by specified exact ages and median age at first marriage, according to current age, Cambodia 2000

Current age	Percentage first married by exact age:					Percentage who had never married	Number	Median age at first marriage
	15	18	20	22	25			
15-19	1.1	NA	NA	NA	NA	87.1	3,618	a
20-24	3.3	24.8	41.1	NA	NA	44.5	1,982	a
25-29	3.6	27.5	51.1	67.6	78.5	16.3	2,118	19.9
30-34	3.5	25.6	46.6	64.2	81.0	9.0	2,195	20.4
35-39	1.9	29.1	53.4	68.7	81.6	6.4	2,168	19.7
40-44	3.7	22.8	45.0	67.9	83.8	5.4	1,847	20.4
45-49	2.7	37.3	58.7	69.4	81.5	5.0	1,425	19.1
Women 25-49	3.1	28.0	50.5	67.4	81.2	8.7	9,751	20.0

NA = Not applicable
^a Omitted when less than 50 percent of respondents in the age group x to $x+5$ have married by age x

The median age at first marriage among women in Cambodia has remained stable over the last two decades at about 20 years of age. Only the oldest cohort had a mean age at first marriage of 19 years. Further evidence has shown that there has been a recent sharp decline in the proportion of women married in their early teens, dropping from an average of 3 percent for preceding cohorts to 1 percent for the youngest cohort. Half of Cambodian women are married by age 20, and 81 percent were married by age 25.

Table 8.3 shows the median age at first marriage for women age 25-49 by current age and selected background characteristics. No discernible pattern can be seen between the age at first marriage of urban (median of 20.6) versus rural women (median of 19.9). There is some variation in age at first marriage according to region, ranging from 19.1 in Prey Veang to 20.7 in Phnom Penh. One consistent pattern of difference in age at first marriage among Cambodian women is with regard to education: women who have attained a high school education or higher marry on the average one year later than their less-educated counterparts.

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	20.7	21.5	20.0	20.8	18.7	20.6
Rural	19.7	20.2	19.6	20.3	19.2	19.9
Region						
Banteay Mean Chey	19.3	19.7	19.6	20.1	18.6	19.5
Kampong Cham	20.4	20.7	19.7	19.8	18.7	20.0
Kampong Chhnang	19.7	20.6	20.2	21.4	18.9	20.3
Kampong Speu	19.3	20.6	19.3	20.5	19.8	19.9
Kampong Thum	19.5	20.5	19.2	20.3	20.3	19.9
Kandal	20.6	20.6	19.0	20.4	19.7	20.1
Kaoh Kong	18.7	19.3	19.6	20.5	19.5	19.4
Phnom Penh	20.5	21.9	20.6	21.3	18.8	20.7
Prey Veang	19.0	19.1	18.9	20.0	18.4	19.1
Pousat	19.9	20.8	20.0	20.9	19.7	20.3
Svay Rieng	19.7	19.8	18.9	20.4	18.3	19.4
Takaev	20.8	21.1	19.7	20.2	19.0	20.2
Bat Dambang/Krong Pailin	21.3	21.5	20.1	20.4	19.4	20.5
Kampot/Krong Kaeb/Krong Preah Sihanouk	19.3	19.2	19.1	20.5	17.9	19.4
Preah Vihear/Stueng Traeng/Kracheh	18.9	20.1	20.5	20.3	20.5	20.0
Mondol Kiri/Rotanak Kiri	19.2	19.1	19.0	19.8	20.2	19.4
Siem Reab/Otdar Mean Chey	20.3	20.5	19.8	20.4	19.5	20.2
Education						
No education	19.0	19.9	19.5	20.4	18.9	19.7
Primary	19.9	20.0	19.5	20.3	19.2	19.8
Secondary and higher	20.5	22.0	23.3	21.5	19.6	21.4
All women	19.9	20.4	19.7	20.4	19.1	20.0

8.3 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is usually used as a proxy for the onset of women's exposure to sexual intercourse and risk to pregnancy. However, since some women are sexually active before marriage, it is also important to measure the impact of age at first sexual intercourse on fertility. The CDHS 2000 collected data on the age at which women first engaged in sexual intercourse, and the results are presented in Tables 8.4 and 8.5.

If one compares the percentage of women who had first sexual intercourse by exact age 15-25 (Table 8.4) with the percentage of women first married by exact age 15-25 (Table 8.2), one finds little variation, indicating that women rarely engage in sexual activity prior to marriage. The percentage of women never having had intercourse is 9 percent, the same as the proportion of women who never married (9 percent). The median age at first intercourse is the same as the median age at first marriage: 20 years of age.

Current age	Percentage who had first sexual intercourse by exact age:					Percentage never having intercourse	Number	Median age at first intercourse
	15	18	20	22	25			
15-19	1.0	NA	NA	NA	NA	87.1	3,618	a
20-24	3.3	24.8	40.4	NA	NA	44.2	1,982	a
25-29	3.5	28.0	50.8	65.8	75.8	16.3	2,118	19.9
30-34	3.4	26.0	46.5	63.2	79.4	9.0	2,195	20.4
35-39	2.1	30.2	54.0	68.4	80.6	6.1	2,168	19.6
40-44	3.7	22.5	45.6	67.2	82.2	5.1	1,847	20.4
45-49	3.7	38.4	58.8	68.7	80.2	4.9	1,425	19.1
25-49	3.2	28.5	50.7	66.5	79.5	8.6	9,751	19.9

NA = Not applicable
^a Omitted when less than 50 percent of women in the age group x to $x + 5$ have had intercourse by age x

Table 8.5 shows differentials in the median age at first sexual intercourse by background characteristics. Again, the lack of pattern seen in the differentials for age at first marriage is repeated here for age at first sex, with no meaningful variation by age, little variation by region, and a one-year difference in the median age at first sexual intercourse between those who have secondary or higher education (21 years old) and those who have less education (20 years old).

Table 8.5 Median age at first sexual intercourse

Median age at first sexual intercourse among women age 25-49 years, by current age and selected background characteristics, Cambodia 2000

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	20.6	21.5	19.9	20.8	18.7	20.6
Rural	19.8	20.2	19.6	20.3	19.1	19.8
Region						
Banteay Mean Chey	19.5	19.6	19.6	20.1	18.4	19.5
Kampong Cham	21.0	21.3	19.7	19.6	18.5	20.0
Kampong Chhnang	19.7	20.5	20.1	21.3	18.9	20.2
Kampong Spueu	19.2	20.6	19.2	20.4	19.3	19.8
Kampong Thum	19.6	20.5	19.2	20.4	20.3	19.9
Kandal	20.5	20.5	19.0	20.4	19.6	20.1
Kaoh Kong	18.7	19.4	19.6	20.5	19.7	19.5
Phnom Penh	20.5	21.9	20.5	21.2	18.9	20.7
Prey Veaeang	19.1	19.1	18.9	20.0	18.4	19.1
Pousat	19.9	20.7	19.8	21.1	19.5	20.1
Svay Rieng	19.8	19.7	18.9	20.5	18.4	19.4
Takaev	20.6	20.7	19.6	20.5	19.0	20.1
Bat Dambang/ Krong Pailin	21.3	20.7	19.9	20.2	19.3	20.2
Kampot/Krong Kaeb/ Krong Preah Sihanouk	19.3	19.4	19.1	20.7	17.9	19.5
Preah Vihear/Stueng Traeng/Kracheh	19.0	20.1	20.4	20.2	20.3	19.9
Mondol Kiri/ Rotanak Kiri	19.2	18.7	19.1	19.2	20.7	19.2
Siem Reab/Otdar Mean Chey	20.5	20.7	19.8	20.5	19.7	20.3
Education						
No education	19.1	19.9	19.6	20.3	18.8	19.7
Primary	19.9	20.0	19.3	20.3	19.2	19.8
Secondary and higher	20.5	22.0	23.1	21.2	19.7	21.3
All women	19.9	20.4	19.6	20.4	19.1	19.9

8.4 RECENT SEXUAL ACTIVITY

In addition to age at first sexual intercourse, in the absence of effective contraception, exposure to pregnancy depends on the pattern of sexual activity. The most important factors are frequency of intercourse, postpartum abstinence, and abstinence for reasons other than being postpartum. Information on recent sexual activity, therefore, can be used to refine measures of exposure to pregnancy. Table 8.6 shows the pattern of sexual activity in the four weeks preceding the survey by background characteristics.

About one-half (48 percent) of all women were sexually active during the four weeks preceding the survey, 5 percent were postpartum abstaining, and 14 percent were abstaining for other reasons. The remaining 32 percent had never had sexual intercourse. The proportion of women who were sexually active in the four weeks prior to the survey increases with age up to age 30-39 and declines thereafter. The proportion sexually active in the past four weeks varies by a maximum of 5 percentage points between all marital durations (averaging about 73 percent), with the exception of those married for 25 years or more: 59 percent were sexually active. As previously stated, the percentage of never-married women who had ever had sexual intercourse is as low as 0.4 percent. A higher proportion of rural women (49 percent) were sexually active than urban

Table 8.6 Recent sexual activity

Percent distribution of women by sexual activity in the four weeks preceding the survey, and among those not sexually active, the duration of abstinence and whether postpartum or not postpartum abstaining, according to background characteristics, Cambodia 2000

Background characteristic/ contraceptive method	Sexually active in last 4 weeks	Not sexually active in last four weeks				Missing	Never had sexual intercourse	Total	Number
		Postpartum abstaining		Not postpartum abstaining					
		0-1 years	2+ years	0-1 years	2+ years				
Current age									
15-19	9.7	1.5	0.0	1.4	0.2	0.0	87.1	100.0	3,618
20-24	41.5	5.6	1.2	5.6	0.9	0.9	44.2	100.0	1,982
25-29	61.0	6.6	1.7	9.4	3.1	1.8	16.3	100.0	2,118
30-34	68.1	4.9	1.5	9.7	4.8	2.1	9.0	100.0	2,195
35-39	67.5	5.0	1.2	10.0	8.5	1.7	6.1	100.0	2,168
40-44	63.8	2.9	0.8	11.1	13.6	2.8	5.1	100.0	1,847
45-49	55.4	0.1	0.3	16.3	20.0	2.8	4.9	100.0	1,425
Marriage duration (years)									
Never married	0.1	0.0	0.0	0.0	0.2	0.0	99.6	100.0	4,884
0-4	72.9	10.6	1.7	11.7	2.1	1.0	0.0	100.0	1,576
5-9	73.2	7.9	2.3	10.3	4.0	2.4	0.0	100.0	1,946
10-14	74.1	5.7	1.5	10.9	5.7	2.1	0.0	100.0	2,057
15-19	71.7	4.4	1.1	10.2	10.4	2.3	0.0	100.0	1,605
20-24	69.2	2.8	0.8	12.1	12.7	2.4	0.0	100.0	1,933
25+	59.4	0.8	0.4	16.4	19.9	3.0	0.0	100.0	1,351
Residence									
Urban	42.7	2.6	0.8	8.4	6.4	1.2	37.9	100.0	2,692
Rural	49.3	4.0	0.9	7.9	5.9	1.6	30.4	100.0	12,659
Region									
Banteay Mean Chey	57.7	4.2	0.4	6.1	4.2	1.1	26.4	100.0	672
Kampong Cham	48.8	4.5	1.8	7.7	5.7	3.1	28.4	100.0	1,961
Kampong Chhnang	45.1	4.3	0.9	9.6	5.9	1.0	33.1	100.0	583
Kampong Spueu	51.2	6.6	1.7	8.3	6.7	1.6	23.9	100.0	725
Kampong Thum	45.1	4.6	0.8	8.3	6.7	0.8	33.8	100.0	777
Kandal	48.1	3.6	0.7	5.5	7.9	0.5	33.7	100.0	1,469
Kaoh Kong	48.2	4.7	0.7	17.9	4.5	2.7	21.3	100.0	147
Phnom Penh	37.3	1.8	0.4	11.6	6.7	0.7	41.5	100.0	1,657
Prey Veang	51.7	3.3	0.7	6.1	7.0	1.7	29.6	100.0	1,272
Pousat	46.7	4.3	0.9	11.4	5.3	3.4	28.0	100.0	433
Svay Rieng	49.3	2.8	1.0	10.8	6.2	2.6	27.3	100.0	688
Takaev	54.6	2.9	0.2	5.6	4.4	1.2	31.0	100.0	1,107
Bat Dambang/Krong Pailin	48.2	3.7	0.2	7.3	5.0	0.9	34.7	100.0	1,084
Kampot/Krong Kaeb/Krong Preah Sihanouk	46.0	3.8	0.9	10.0	5.6	2.4	31.3	100.0	999
Preah Vihear/Stueng Traeng/Kracheh	52.6	3.8	1.6	5.7	4.5	1.1	30.8	100.0	582
Mondol Kiri/Rotanak Kiri	58.1	5.0	0.7	10.0	5.3	1.5	19.4	100.0	161
Siem Reab/Otdar Mean Chey	46.6	3.9	1.4	6.5	5.9	0.8	34.9	100.0	1,036
Education									
No education	52.6	4.4	1.2	8.5	7.5	2.1	23.7	100.0	4,338
Primary	48.1	3.6	1.0	8.2	6.0	1.4	31.6	100.0	8,376
Secondary and higher	40.9	3.1	0.1	6.6	3.4	0.7	45.2	100.0	2,637
Current contraceptive method									
No method	41.2	4.2	1.0	8.0	7.0	1.7	36.9	100.0	13,173
Daily pill	89.0	0.5	0.0	10.3	0.0	0.3	0.0	100.0	410
Monthly pill	92.9	0.6	0.0	6.4	0.0	0.0	0.0	100.0	248
Injectables	93.2	0.6	0.0	5.8	0.0	0.3	0.0	100.0	668
Periodic abstinence	86.0	1.2	1.0	11.8	0.0	0.0	0.0	100.0	247
Other	88.7	2.2	0.0	7.4	0.5	1.2	0.0	100.0	605
Total	48.2	3.7	0.9	8.0	6.0	1.5	31.7	100.0	15,351

women (43 percent). Recent sexual activity is inversely related to education: the proportion falls from 53 percent among women with no education to 41 percent among women with secondary education or higher. However, this variation may be attributed to the confounding association between education and age: younger women are more likely to be more educated than older women, and the more educated tend to be concentrated in urban areas. Recent sexual activity ranges from a low of 37 percent in Phnom Penh to a high of 58 percent in Mondol Kiri/Rotanak Kiri.

The proportion of women abstaining postpartum rises to a high of 7 percent among women age 25-29 and then declines thereafter. Women who have been married for four years or less are the most likely to be postpartum abstaining (12 percent), and rural women are more likely than urban women to abstain postpartum, with women in Mondol Kiri/Rotanak Kiri abstaining more than women in other regions (6 percent). Abstinence unrelated to childbirth rises with age and marital duration but is lower among rural women than among urban women, is lowest in Takaev, and surprisingly (since this group is also the least likely to have been sexually active in the past four weeks) is lowest among women with secondary and higher education.

8.5 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhea refers to the interval between childbirth and the resumption of ovulation,¹ a period during which a woman is temporarily infecund. The length and intensity of breastfeeding influences the duration of postpartum amenorrhea, as has been shown in various studies. Women are considered insusceptible if they are not exposed to the risk of pregnancy, either because they are amenorrheic or are abstaining from sexual intercourse after a birth. Table 8.7 shows the percentage of births in the three years prior to the survey after which mothers are amenorrheic, abstaining from sex, and insusceptible, by the number of months since birth.

Survey results indicate that in Cambodia, the period of postpartum amenorrhea is considerably longer than the period of postpartum abstinence and is the major determinant of postpartum insusceptibility to pregnancy. Cambodian women are insusceptible for a median period of 9.6 months, amenorrheic for a median pe-

Table 8.7 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 durations, Cambodia 2000

Months since birth	Percentage of births for which the mother is:			Number
	Amenorrheic	Abstaining	Insusceptible	
<2	98.5	93.6	99.9	243
2-3	87.1	61.3	91.7	320
4-5	77.7	20.6	80.7	302
6-7	62.0	16.4	66.9	287
8-9	53.2	6.8	54.9	288
10-11	41.5	9.1	44.7	270
12-13	30.1	6.2	34.4	262
14-15	21.1	2.9	22.9	241
16-17	15.5	4.6	18.3	208
18-19	10.2	5.9	13.4	200
20-21	8.7	3.3	12.0	213
22-23	5.1	2.8	7.9	214
24-25	4.6	6.2	10.5	292
26-27	3.6	3.4	7.0	287
28-29	1.3	5.2	6.0	247
30-31	2.0	1.5	3.5	236
32-33	1.2	5.1	6.3	215
34-35	0.6	5.2	5.4	274
Total	31.4	15.3	34.9	4,599
Median	9.0	3.0	9.6	-
Mean	10.7	5.5	12.0	-

¹Estimated during the survey through resumption of menstruation.

riod of 9 months, and abstaining only for a median duration of 3 months. The proportion of women insusceptible to pregnancy falls from nearly 100 percent during the first 2 months after birth to 45 percent by 10 to 11 months and further reduces to 8 percent by 22 to 23 months after birth. Within the first two months after a birth, virtually all women are insusceptible to pregnancy due to both amenorrhea and abstinence. However, with the resumption of sexual relations, the contribution of abstinence to insusceptibility is greatly reduced.

Table 8.8 shows variations in the median duration of postpartum amenorrhea, abstinence, and insusceptibility by various background characteristics. Women younger than 30 years are insusceptible for the same duration than women 30 years and older, although they tend to be amenorrheic for a month longer and abstain for a month less than older women. Rural women remain amenorrheic for about two months longer than urban women, possibly due to longer duration of breastfeeding (see Table 13.3), but are insusceptible for about the same amount of time as urban women. The median duration of postpartum amenorrhea and insusceptibility falls as women's education increases.

Table 8.8 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by background characteristics, Cambodia 2000

Background characteristic	Median duration of postpartum:			Number
	Amenorrhea	Abstinence	Insusceptibility	
Age				
15-29	9.2	2.8	9.6	2,246
30-49	8.6	3.4	9.6	2,352
Residence				
Urban	7.4	3.3	9.3	593
Rural	9.1	3.0	9.6	4,005
Education				
No education	9.3	3.0	9.9	1,507
Primary	9.2	2.9	9.8	2,435
Secondary and higher	6.9	3.4	7.6	658
Total	9.0	3.0	9.6	4,599

Note: Medians are based on current status.

8.6 TERMINATION OF EXPOSURE TO PREGNANCY

The risk of childbearing declines as age increases. The term infecundity denotes a process rather than a well-defined event. 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 8.9 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 and over.

A woman is considered menopausal if she is not pregnant, not postpartum amenorrheic, and did not have a menstrual period for at least six months before the survey. Eleven percent of Cambodian women age 30-49 are menopausal. As expected, the proportion of women who reached menopause increases with age, particularly after age 45. It rises from 15 percent among women age 44-45 to 45 percent among women at the end of their reproductive years (age 48-49).

Table 8.9 Menopause

Percentage of women age 30-49 who are menopausal, Cambodia 2000

Age	Percentage menopausal ¹	Number
30-34	4.4	1,656
35-39	5.5	1,785
40-41	6.8	691
42-43	10.2	679
44-45	15.0	633
46-47	23.5	597
48-49	44.8	469
30-49	11.3	6,512

¹ Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months before the survey (excludes other women who report that they are menopausal).

FERTILITY PREFERENCE

The CDHS 2000 collected information on fertility preferences to measure the overall attitudes of women toward childbearing and the general course of future fertility. Data on fertility preferences are also useful for assessing the unmet need for family planning and the number of unwanted or mistimed births in the population. These, together with data on contraceptive prevalence, provide an estimation of the demand for family planning.

9.1 DESIRE FOR MORE CHILDREN

Currently married women in Cambodia were asked whether they want to have another child, and if so, how soon. Table 9.1 presents fertility preferences among currently married women by number of living children. Twenty-four percent of currently married women state that they want to have another child, but only 9 percent want another child within two years. Thirteen percent prefer to wait for two years or more to have another child, and 37 percent want no more children or have been sterilized. This leaves a large proportion of women who are unsure of whether or not they would like to have another child (28 percent). The proportion of women who are undecided about having another child remains stable across parities, ranging from 24 percent to 29 percent for parities zero through five. The information presented in Table 9.1 indicates that of those women who would like to have another child, many prefer to space their pregnancies, and are potentially in need of family planning for that purpose.

Table 9.1 Fertility preferences by number of living children

Percent distribution of currently married women by desire for more children, according to number of living children, Cambodia 2000

Desire for children	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
Have another soon ²	50.1	20.1	9.2	4.9	2.8	1.4	0.4	9.0
Have another later ³	11.8	39.4	22.6	11.1	4.7	1.7	0.7	13.4
Have another, undecided when	5.6	4.1	3.5	1.7	0.5	0.3	0.5	2.0
Undecided	25.8	24.2	28.9	28.6	26.3	26.5	32.2	28.0
Want no more	2.8	7.3	26.8	41.8	49.1	48.9	50.0	35.2
Sterilized	0.2	0.4	1.5	2.3	2.4	2.2	1.6	1.6
Declared infecund ⁴	3.7	4.2	7.3	9.5	14.2	18.9	14.5	10.6
Missing	0.0	0.3	0.2	0.1	0.0	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	526	1,286	1,689	1,591	1,282	1,022	1,675	9,071

¹ Includes current pregnancy

² Wants next birth within two years

³ Wants to delay next birth for two or more years

⁴ This refers to women's reporting themselves as being infecund.

The proportion of currently married women who want no more children is relatively large (35 percent) overall, showing increases with increasing number of living children, from 3 percent among married women with no living children to 50 percent among women with six or more living children. There are particularly significant increases in the proportion of women wanting no more children between parities one and two (a difference of 20 percentage points) and parities two and three (a difference of 15 percentage points). The large proportion of women indicating a desire to have no more children at parities two and three may indicate the existence of an ideal family size of two to three children, based on women's future desires, rather than on the basis of their retrospective desires as presented in Table 9.5.

Table 9.2 presents data on the fertility desires of women by desire for more children, according to age. The desire for no more children increases steadily with age. Among women in the early reproductive ages (15-19 years), only 5 percent want no more children, compared with 49 percent of women in the oldest age group (45-49 years). It can be concluded that the potential need for family planning is positively related to the current age of women when the desire is to limit childbearing. On the other hand, the desire to space births, according to women's stated desire to delay their next birth for two or more years, declines from 39 percent among the youngest age groups to less than 1 percent among the oldest.

Table 9.2 Fertility preferences by age

Percent distribution of currently married women by desire for more children, according to age, Cambodia 2000

Desire for children	Current age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon ¹	21.1	14.5	11.4	9.6	7.3	4.2	3.2	9.0
Have another later ²	38.5	36.6	21.4	13.0	4.6	0.8	0.5	13.4
Have another/undecided when	7.1	3.6	3.2	2.1	1.0	0.5	0.2	2.0
Undecided	25.9	28.7	29.3	27.7	29.0	30.5	21.2	28.0
Want no more	5.4	13.6	28.0	36.9	43.7	45.1	49.2	35.2
Sterilized	0.0	0.0	0.4	1.3	2.9	3.6	1.7	1.6
Declared infecund ³	2.1	2.6	6.1	9.2	11.5	15.2	23.9	10.6
Missing	0.0	0.4	0.1	0.2	0.1	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	438	1,009	1,612	1,797	1,764	1,427	1,024	9,071

¹ Wants next birth within two years
² Wants to delay next birth for two or more years
³ This refers to women's reporting themselves as being infecund.

Table 9.3 displays the percentage of currently married women who want no more children¹ by number of living children and background characteristics. At a parity of zero, urban women are more likely than rural women to desire no more children; however, at parity one and two, rural women indicate a greater intention to have no more children. In total, no consistent urban-rural pattern emerges for women's desires to have no more children, although overall, rural women are somewhat more likely to not want any more children. The proportion of respondents in Pousat who desire no more children (67 percent of women) is higher than in all other regions, although use of contraception is rather limited in this region (18 percent; see Table 7.5). The desire to limit child-

¹Including women who are sterilized.

Table 9.3 Desire to limit childbearing by background characteristics

Percentage of currently married women who want no more children by number of living children and background characteristics, Cambodia 2000

Background characteristic	Number of living children ¹						Total	
	0	1	2	3	4	5		6+
Residence								
Urban	5.5	6.9	27.5	49.3	49.4	48.1	50.5	34.9
Rural	2.5	8.0	28.5	43.1	51.9	51.5	51.7	37.2
Region								
Banteay Mean Chey	*	11.5	30.9	51.9	54.6	66.3	50.0	41.9
Kampong Cham	(3.4)	7.7	39.5	60.0	59.5	46.1	51.4	42.8
Kampong Chhnang	(0.0)	6.8	19.6	40.0	57.5	57.3	54.6	39.0
Kampong Spueu	*	1.2	1.3	3.5	2.2	5.4	6.2	3.4
Kampong Thum	*	0.0	3.2	11.1	25.9	(16.7)	17.4	12.6
Kandal	(0.0)	3.0	30.5	51.2	61.9	55.8	69.7	45.6
Kaoh Kong	(12.7)	9.1	37.6	45.3	55.6	78.2	65.0	45.1
Phnom Penh	(3.8)	9.0	35.4	46.2	58.6	(48.5)	(60.1)	37.1
Prey Veang	(0.8)	13.3	38.2	46.6	66.0	54.5	55.2	39.9
Pousat	(17.8)	21.4	45.5	81.9	82.0	86.6	93.4	67.4
Svay Rieng	(3.0)	10.4	27.9	54.9	56.3	62.8	60.3	41.4
Takaev	(0.0)	2.6	14.1	25.7	28.0	36.1	32.2	21.1
Bat Dambang/Krong Pailin	*	9.1	36.4	60.6	64.5	78.6	77.2	53.2
Kampot/Krong Kaeb/ Krong Preah Sihanouk	(3.0)	8.4	22.4	38.5	42.8	47.7	55.2	34.8
Preah Vihear/Stueng Traeng/ Kracheh	(0.0)	6.8	20.7	28.9	49.3	45.7	47.1	32.0
Mondol Kiri/Rotanak Kiri	(3.8)	12.7	34.3	41.5	49.3	62.2	63.2	38.8
Siem Reab/Otdar Mean Chey	(0.0)	5.9	17.4	35.1	46.6	53.8	48.4	33.3
Education								
No education	3.0	10.2	26.9	42.0	44.8	50.2	44.6	36.2
Primary	4.0	9.1	30.1	44.7	54.9	52.3	57.4	39.8
Secondary and higher	0.1	2.1	25.9	45.8	50.5	44.2	50.3	26.9
Total	3.0	7.8	28.3	44.1	51.5	51.0	51.6	36.8

Note: Women who have been sterilized are considered to want no more children. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

¹ Includes current pregnancy

bearing is exceptionally low in Kampong Spueu (3 percent). In most regions, 50 percent or more of women have expressed a desire to cease childbearing by parity three or four. Contrary to expectation, among all women regardless of parity, those with the most education are the least likely to report that they want no more children. In addition, there is no consistent pattern by education according to parity.

9.2 NEED FOR FAMILY PLANNING SERVICES

Women who are currently married and who say either they want no more children or want to wait at least two years before having another child, but are not using contraception, are considered to have an *unmet need* for family planning. Women who are currently using family planning methods are said to have a *met need* for family planning. The sum of women with unmet need and met need constitutes the *total demand* for family planning.

Table 9.4 presents the demand for family planning services by background characteristics. Thirty-three percent of currently married women have an unmet need for family planning, with 17 percent having an unmet need for spacing and 15 percent having an unmet need for limiting. More women have an unmet need than a met need for family planning in Cambodia: 24 percent

Table 9.4 Need for family planning

Percentage of currently married women with unmet need for family planning, and with met need for family planning, and the total demand for family planning, by background characteristics, Cambodia 2000

Background characteristic	Unmet need for family planning ¹			Met need for family planning ² (currently using)			Total demand for family planning ³			Percentage of demand satisfied	
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	satisfied	Number
Age											
15-19	34.2	2.9	37.1	7.7	1.3	8.9	41.9	4.1	46.1	19.4	438
20-24	28.8	7.4	36.1	12.4	3.2	15.5	41.1	10.5	51.7	30.1	1,009
25-29	23.6	13.6	37.2	12.7	10.7	23.4	36.3	24.2	60.6	38.6	1,612
30-34	16.4	18.6	35.1	13.2	17.6	30.8	29.7	36.2	65.9	46.8	1,797
35-39	13.3	20.8	34.1	7.8	23.1	30.9	21.1	43.9	65.0	47.6	1,764
40-44	11.9	18.7	30.6	7.0	19.8	26.8	18.9	38.5	57.4	46.7	1,427
45-49	5.5	10.6	16.1	1.5	8.7	10.2	7.0	19.3	26.3	38.7	1,024
Residence											
Urban	14.3	12.4	26.8	13.5	19.2	32.7	27.8	31.7	59.5	55.0	1,413
Rural	17.9	15.8	33.7	8.7	13.5	22.2	26.6	29.3	55.9	39.7	7,658
Region											
Banteay Mean Chey	12.3	14.7	26.9	19.0	17.2	36.1	31.2	31.8	63.1	57.3	451
Kampong Cham	17.8	16.8	34.6	7.7	10.9	18.6	25.5	27.7	53.2	35.0	1,212
Kampong Chhnang	25.2	24.5	49.7	5.9	11.1	17.0	31.1	35.6	66.7	25.5	326
Kampong Spueu	36.9	4.7	41.6	9.1	1.9	10.9	46.0	6.6	52.6	20.8	469
Kampong Thum	23.3	10.6	33.9	12.7	6.8	19.5	36.0	17.4	53.4	36.6	435
Kandal	7.0	17.4	24.4	7.1	21.1	28.2	14.2	38.4	52.6	53.6	832
Kaoh Kong	15.9	16.4	32.3	6.2	10.4	16.7	22.1	26.9	49.0	34.0	105
Phnom Penh	10.0	8.9	18.9	20.7	22.6	43.3	30.7	31.5	62.2	69.6	822
Prey Veaeng	16.2	15.3	31.5	3.1	13.8	16.9	19.3	29.1	48.4	34.9	769
Pousat	14.1	29.7	43.8	3.2	14.4	17.6	17.3	44.1	61.4	28.6	276
Svay Rieng	9.8	13.8	23.5	6.2	20.4	26.5	16.0	34.1	50.1	53.0	436
Takaev	25.1	9.0	34.1	11.1	11.4	22.5	36.2	20.4	56.6	39.8	676
Bat Dambang/Krong Pailin	12.6	19.3	31.9	13.0	22.0	35.0	25.6	41.4	66.9	52.3	627
Kampot/Krong Kaeb/Krong Preah Sihanouk Preah Vihear/Stueng	14.8	17.8	32.5	6.0	19.0	25.0	20.8	36.8	57.5	43.5	586
Traeng/Kracheh	19.8	18.5	38.3	6.1	8.1	14.3	25.9	26.7	52.6	27.2	358
Mondol Kiri/Rotanak Kiri	21.1	18.8	39.9	2.7	7.6	10.3	23.9	26.4	50.2	20.5	113
Siem Reab/Otdar Mean Chey	26.9	16.9	43.8	8.1	8.6	16.7	35.0	25.5	60.4	27.6	578
Education											
No education	18.2	16.6	34.8	7.3	12.0	19.3	25.5	28.6	54.1	35.7	2,798
Primary	16.7	16.5	33.2	8.0	15.3	23.4	24.7	31.9	56.6	41.3	4,960
Secondary and higher	18.2	7.6	25.8	19.2	15.8	35.0	37.4	23.4	60.8	57.6	1,314
Total	17.4	15.2	32.6	9.4	14.4	23.8	26.8	29.6	56.4	42.2	9,071

¹ Unmet need for *spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children.

² Using for *spacing* 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.

³ Pregnant and amenorrhoeic women whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need (they need a better method of contraception) but are included in total demand for contraception (since they would have been using had their method not failed).

percent of women are currently successful in fulfilling their need for family planning. If all currently married women who say that they want to space or limit their children were to use family planning methods, the contraceptive prevalence rate would increase from 24 percent to 56 percent (the sum of the met and unmet need or total demand). Less than half (42 percent) of the family planning needs of currently married women are being met.

The level of unmet need for spacing decreases with age, while the opposite is true for unmet need for limiting when older women have a greater unmet need than younger women do, except at the oldest age group. The total unmet need for family planning varies little by age group among women younger than 45 years but falls markedly for women age 45-49. The demand for family planning is highest among women age 25-39 (ranging from 60 to 65 percent).

Unmet need is higher among rural women than among urban women (34 percent and 27 percent, respectively). The overall unmet need for family planning is the highest in Kampong Chhnang (50 percent) and the lowest in Phnom Penh (19 percent). Whereas the unmet need for spacing remains about the same as the level of education increases, the unmet need for limiting is the least among women with secondary or higher education. Women with the highest levels of education have both the highest demand for family planning (61 percent) and the highest percentage of demand satisfied (58 percent).

9.3 IDEAL FAMILY SIZE

Information on the ideal family size was collected in two ways. Respondents who had no living children were asked how many children they would like to have if they could choose the number of children to have. Respondents with children were asked how many children they would like to have if they could go back to the time when they did not have any children and could choose exactly the number of children to have. Even though these questions are based on hypothetical situations, they give an idea of the total number of children women who have not started childbearing will have in the future, while among older and high parity women, these data provide a measure of the level of unwanted fertility.

Table 9.5 shows that the majority of respondents were able to provide a numeric response to these questions. Seven percent of women gave nonnumeric responses such as “any number,” “depends on fate,” or “do not know.” Almost three in ten women favor an ideal family size of four children, while 43 percent of women favor two or three children. Only 20 percent of women favor five or more children, while less than 2 percent of women want only one child or do not want any children at all. The average ideal family size among all women who gave numeric responses is 3.6 children, while it is 3.9 children among currently married women.

The mean ideal family size shows a positive association with the number of living children for both women and men (Table 9.5). It increases from 3.1 children among childless women to 4.7 children among women with 6 or more children. The observed positive association between the ideal family size and the number of living children may arise for several possible reasons. First, women may tend to rationalize their family size by reporting their actual number of children as their ideal number, or second, they may have achieved their preferred number of children. A third possibility is that there has been a decrease of ideal family size in the youngest cohorts.

Table 9.5 Ideal and actual number of children

Percent distribution of all women by mean ideal number of children and mean ideal number of children for all women and for currently married women, according to number of living children, Cambodia 2000

Ideal number of children	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
0	0.3	0.0	0.0	0.2	0.1	0.1	0.2	0.2
1	1.3	6.9	0.6	0.3	0.4	0.2	0.2	1.4
2	33.3	31.5	31.6	6.2	5.7	4.7	6.0	21.8
3	20.6	25.4	21.2	39.5	7.7	15.7	15.1	21.2
4	22.3	23.0	30.3	30.8	59.2	21.6	24.5	28.1
5	7.0	8.4	11.7	15.8	16.0	39.5	19.4	13.5
6+	1.9	3.0	2.8	4.9	8.1	12.0	27.3	6.8
Non-numeric response	13.3	1.8	1.8	2.2	2.9	6.2	7.3	7.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,576	1,648	1,972	1,783	1,437	1,130	1,805	15,351
Mean ideal number for:								
All women	3.1	3.1	3.3	3.7	4.2	4.5	4.7	3.6
Number	4,834	1,618	1,936	1,744	1,396	1,059	1,672	14,260
Currently married women	3.1	3.1	3.3	3.8	4.2	4.5	4.8	3.9
Number	507	1,273	1,662	1,559	1,245	960	1,557	8,763

Note: The means exclude women who gave nonnumeric responses.
¹ Includes current pregnancy

The mean ideal number of children for all women by five-year age groups and background variables is shown in Table 9.6. The mean ideal number of children increases with increasing age, from 3.1 children for women age 15-19 to 4.3 children for women age 45-49. The mean ideal number of children among rural women is only somewhat higher than among their urban counterparts. Women in Phnom Penh and Svay Rieng have the lowest mean ideal number of children (3.1 and 3.2, respectively), but it is only an average of one child fewer than the regions with the highest mean ideal number of children (Mondol Kiri/Rotanak Kiri with 4.2 children and Kampong Spueu with 4.3 children). The mean ideal family size varies negatively with education but by no more than half a child.

Table 9.6 Mean ideal number of children by background characteristics

Mean ideal number of children for all women, by age and background characteristics, Cambodia 2000

Background characteristic	Current age							Total women
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	2.8	2.9	3.1	3.3	3.7	3.9	4.0	3.3
Rural	3.1	3.3	3.4	3.7	4.0	4.2	4.4	3.7
Region								
Banteay Mean Chey	2.9	3.0	3.3	3.6	4.3	4.6	(4.3)	3.6
Kampong Cham	3.7	3.5	3.4	3.7	4.1	4.5	4.6	3.9
Kampong Chhnang	3.4	3.3	3.9	4.0	4.1	4.4	4.5	3.9
Kampong Spueu	3.7	3.8	4.0	4.1	4.6	5.0	(5.2)	4.3
Kampong Thum	3.3	3.6	3.6	3.8	4.2	4.3	4.7	3.8
Kandal	3.0	3.0	3.6	3.8	4.1	4.0	4.1	3.6
Kaoh Kong	2.8	3.1	3.5	3.9	4.0	4.1	4.4	3.6
Phnom Penh	2.6	2.8	2.9	3.1	3.5	3.6	3.8	3.1
Prey Veang	2.9	2.8	3.0	3.4	3.8	4.0	4.3	3.4
Pousat	2.7	3.4	3.4	3.6	3.7	3.8	3.8	3.4
Svay Rieng	2.4	2.5	2.8	3.5	3.5	3.6	4.2	3.2
Takaev	3.0	3.1	3.4	3.7	3.9	4.2	4.4	3.5
Bat Dambang/Krong Pailin	3.0	3.1	3.1	3.5	3.9	4.0	4.2	3.5
Kampot/Krong Kaeb/ Krong Preah Sihanouk	3.3	3.3	3.5	3.8	4.1	4.1	4.4	3.7
Preah Vihear/Stueng Traeng/ Kracheh	3.5	3.6	3.6	4.1	4.3	4.5	4.6	3.9
Mondol Kiri/Rotanak Kiri	3.7	3.9	4.0	4.4	4.5	4.8	4.5	4.2
Siem Reab/Otdar Mean Chey	3.2	3.4	3.4	3.7	4.1	4.2	4.2	3.6
Education								
No education	3.2	3.4	3.7	3.7	4.1	4.2	4.4	3.8
Primary	3.1	3.2	3.4	3.7	3.9	4.2	4.3	3.6
Secondary and higher	2.8	3.0	3.1	3.3	3.6	3.7	4.0	3.1
All women	3.1	3.2	3.4	3.7	4.0	4.2	4.3	3.6

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

9.4 FERTILITY PLANNING

The CDHS 2000 provides an opportunity to estimate levels of unwanted fertility. Unwanted fertility can be estimated in one of two ways. Women were asked a series of questions about each of their children born in the five years preceding the survey, as well as any current pregnancy, to determine whether the pregnancy was wanted *then* (planned), wanted *later* (mistimed), or *not* wanted (unplanned) at the time of conception. This information may in fact underestimate unplanned childbearing since women may rationalize unplanned births and declare them as planned once they occur. Another way of measuring unwanted fertility utilizes the data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size.

Table 9.7 shows that 24 percent of births in the five years preceding the survey were not wanted, while 9 percent were mistimed (wanted later). In general, the proportion of unwanted births rises with birth order. The percentage of unwanted births more than doubles from 3 percent among first order births to 9 percent among second order births, doubles again to 17 percent among third order births, and makes the largest jump between third and fourth and higher order births, at which parity, 41 percent of births are unwanted. The same patterns observed when comparing differentials between planning statuses by parity emerges when making comparisons by age: the percentage of unwanted births rises with mother's age.

Table 9.7 Fertility planning status						
Percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Cambodia 2000						
Birth order and mother's age at birth	Planning status of birth				Total	Number
	Wanted then	Wanted later	Not wanted	Missing		
Birth order						
1	89.0	7.0	3.2	0.8	100.0	1,758
2	80.3	10.0	8.6	1.1	100.0	1,795
3	70.8	11.4	16.9	0.9	100.0	1,528
4+	49.6	8.2	41.4	0.8	100.0	4,071
Age at birth						
<15	83.3	10.0	5.7	0.9	100.0	840
15-19	79.7	10.0	9.4	0.9	100.0	1,970
20-24	71.2	10.2	17.8	0.7	100.0	2,482
25-29	60.6	7.9	30.6	1.0	100.0	1,992
30-34	49.5	5.9	43.6	1.0	100.0	1,311
35-39	37.9	7.9	53.8	0.5	100.0	506
40-44	41.7	6.1	52.2	0.0	100.0	52
45-49						
Total	66.7	8.9	23.5	0.9	100.0	9,152

Table 9.8 shows *wanted fertility rates* calculated using the second approach to measuring unwanted fertility. The wanted fertility rate is computed in the same way as the total fertility rate, except that unwanted births are excluded from the numerator. In this case, unwanted births are those that exceed the number mentioned as ideal by the respondent. This rate represents the level of fertility that would have prevailed in the five years preceding the survey if all unwanted births had been prevented.

The overall total wanted fertility rate is 3.1 children and is a child lower than the actual total fertility rate of 4.0 children in the country. Overall, the gap between wanted and observed fertility is larger when the total fertility rate is still high, as can be observed by comparing regional figures. The gap between wanted and observed fertility rates is greater among women living in rural areas than in urban areas, likely indicating that women in rural areas have the desire to limit their births but may not have sufficient access to contraceptive technology. The difference between the two

rates is lowest among women with secondary and higher education and highest among women with no education, a finding that likely indicates an urbanization effect: women are more likely to be educated in urban areas, and women are also more likely to have access to modern contraceptive methods in urban areas, thus producing an association between education and greater propensity toward achieving desired fertility. The gap between wanted and actual fertility is widest in Siem Reab/Otdar Mean Chey (a difference of 1.5 children) and in Mondol Kiri/Rotanak Kiri (a difference of 1.3 children). Women in Phnom Penh and Banteay Mean Chey come closest to attaining their ideal fertility, with differences between wanted fertility rates and actual fertility rates of 0.3 and 0.5 children, respectively.

Table 9.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the five years preceding the survey, by background characteristics, Cambodia 2000

Background characteristic	Total wanted fertility rates	Total fertility rates
Residence		
Urban	2.5	3.1
Rural	3.2	4.2
Region		
Banteay Mean Chey	3.8	4.3
Kampong Cham	3.6	4.2
Kampong Chhnang	4.0	5.2
Kampong Spueu	3.9	4.6
Kampong Thum	3.2	4.3
Kandal	2.9	3.8
Kaoh Kong	3.4	4.3
Phnom Penh	1.8	2.1
Prey Veaeng	2.6	3.5
Pousat	3.4	4.9
Svay Rieng	2.6	3.5
Takaev	3.3	4.1
Bat Dambang/Krong Pailin	3.4	4.5
Kampot/Krong Kaeb/ Krong Preah Sihanouk	3.1	4.1
Preah Vihear/Stueng Traeng/ Kracheh	3.8	4.6
Mondol Kiri/Rotanak Kiri	5.0	6.3
Siem Reab/Otdar Mean Chey	3.1	4.6
Mother's education		
No education	3.4	4.5
Primary	3.2	4.0
Secondary and higher	2.6	2.9
Total	3.1	4.0

Note: Rates are calculated based on births to women age 15-49 in the period 1-60 months preceding the survey. The total fertility rates are those presented in Table 5.2.

Since the launch of the Safe Motherhood Initiative in 1987, attention to reproductive health has increased worldwide and so has the need to provide reliable countrywide estimates of maternal deaths. In response to this increased interest, DHS surveys began collecting maternal mortality data through a series of questions designed to gather information and obtain a direct measure of maternal mortality. These questions were included in the CDHS 2000.

Maternal mortality estimates need a comprehensive and accurate reporting of maternal deaths. Such estimates can be obtained through vital registration, longitudinal studies of pregnant women, or repeated household surveys. The CDHS 2000 is the first population-based national survey to incorporate questions on maternal mortality. Therefore, the estimates presented in this chapter will play a vital role in filling the vacuum for a reliable national estimate of maternal mortality. Nevertheless, it is important for users of this information to understand the inherent problems associated with measuring maternal mortality in order to avoid serious misinterpretation of the results of the survey.

Direct estimates of maternal mortality use data on the age of surviving sisters of survey respondents, the age at death of sisters who have died, and the number of years since the death of sisters. Interviewers in the CDHS were asked to list all the brothers and sisters born to the natural mother of female respondents in chronological order starting with the first. Information was then obtained on the survivorship of each of the siblings, the ages of surviving siblings, the year of death or years since death of deceased siblings, and the age at death of deceased siblings. For each sister who died at age 12 or over, the respondent was asked additional questions to determine whether the death was maternity related, that is, whether the sister was pregnant when she died, and if so, whether the sister died during childbirth, and if not, whether the sister died within two months of the termination of a pregnancy or childbirth. Listing all siblings in chronological order of their birth is believed to result in better reporting of events than would be the case if only information on sisters were sought. Moreover, the information collected also allows the direct estimation of adult male and female mortality.

10.1 DATA QUALITY ISSUES

The estimation of adult and maternal mortality requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number that have died, and the number of sisters who died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. Table 10.1 shows the number of siblings reported by respondents and the completeness of the reported data on current age, age at death, and years since death. Almost all respondents (99 percent) reported the survival status of siblings. The sex ratio¹ of dead siblings (number of brothers per 100 sisters: 9,582 brothers who died compared with 6,699 sisters who died) was 143, which is very high and may be the consequence of the higher male mortality during the Khmer Rouge period. Furthermore,

¹ Sex ratio is defined as number of males per 100 females.

in the post-Khmer Rouge period, fighting continued until 1993, when the Paris Peace Accord was signed. This fighting, conducted primarily by men, also likely contributed to this high sex ratio of dead siblings. Overall, the data on siblings is nearly complete with 99.9 percent of complete information on age for living siblings and 98.7 percent of complete information on age at death and years since death for dead siblings, with little difference between brothers and sisters. Rather than exclude siblings with missing information from the analysis, the information on the birth order of siblings in conjunction with other information is used to impute the missing data.²

Table 10.1 Data on siblings

Number of siblings reported by female survey respondents and completeness of reported data on sibling age, age at death (AD) and years since death (YSD), Cambodia 2000

Sibling	Sisters		Brothers		All siblings	
	Number	Percent	Number	Percent	Number	Percent
All siblings	39,167	100.0	40,928	100.0	80,095	100.0
Surviving	32,237	82.3	30,774	75.2	63,011	78.7
Dead	6,699	17.1	9,582	23.4	16,281	20.3
Missing survival information	231	0.6	572	1.4	803	1.0
Living siblings	32,237	100.0	30,774	100.0	63,011	100.0
Age reported	32,223	100.0	30,751	99.9	62,973	99.9
Age missing	14	--	23	0.1	38	0.1
Dead siblings	6,699	100.0	9,582	100.0	16,281	100.0
AD and YSD reported	6,604	98.6	9,472	98.9	16,076	98.7
AD missing	57	0.9	63	0.7	120	0.7
YSD missing	25	0.4	8	0.1	32	0.2
Both AD and YSD missing	13	0.2	40	0.4	53	0.3

-- Less than 0.05 percent

² The imputation procedure is based on the assumption that the reported birth ordering of the siblings in the birth history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and for each dead sibling with complete information on both age at death and year of death, the birth date is calculated. For a sibling missing these data, a birth date is imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age is calculated from the imputed birth date. In the case of dead siblings, if either age at death or year of death is reported, that information is combined with the birth date to produce missing information. If both pieces of information are missing, the age at death is imputed. This imputation is based on the distribution of the ages at death for those whose year of death is unreported but age at death is reported.

The distribution of year of birth of respondents in relation to their siblings is another crude measure of the quality of data. If there is no bias in reporting, the year of birth of siblings should be roughly equivalent to the year of birth of respondents overall. The distribution of respondents and their siblings by year of birth is close, with the same median year of birth for respondents and siblings (1970), indicating that there is no serious underreporting of siblings (Table 10.2).

Table 10.2 Indicators on data quality

Percent distribution of respondents and siblings by year of birth, Cambodia 2000

Year of birth	Respondents	Siblings
Before 1945	0.0	2.6
1945-49	0.0	3.7
1950-54	8.1	6.4
1955-59	11.6	9.3
1960-64	14.2	12.6
1965-69	14.1	13.3
1970-74	14.2	13.6
1975 or later	37.8	38.6
Total	100.0	100.0
Lower range	1950	1919
Upper range	1985	2000
Median	1970	1970
Number	15,351	80,089

Yet another crude measure of data quality is the mean number of siblings, or the mean sibship size (Table 10.3). Sibship size is expected to decline as fertility declines over time. The absence of a monotonic decline in sibship size, even though fertility has declined in Cambodia, is an indication that there may be some omission in the reporting of older siblings. In most of the cases, the sex ratios stay in the internationally accepted range of 103 to 105 indicating that there is no serious underreporting or overreporting of brothers or sisters. Nevertheless, it should be borne in mind that any information that relies on recall of events will suffer from some degree of misreporting, especially if it pertains to deceased persons and occurred a long time before the survey.

Table 10.3 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of births, Cambodia 2000

Respondent's year of birth	Mean sibship size	Sex ratio at birth of siblings
1950-54	6.0	98.6
1955-59	6.2	106.7
1960-64	6.3	103.0
1965-69	6.4	102.3
1970-74	6.1	103.1
1975-79	6.3	102.8
1980-84	6.2	109.1
Total	6.2	104.5

10.2 ADULT MORTALITY

It is advisable to begin by estimating overall adult mortality. If the overall mortality estimates display a general, stable, and plausible pattern, it lends credence to the maternal mortality estimates derived thereafter. This is simply because maternal mortality is a subset of adult mortality.

Direct estimates of male and female adult mortality are obtained from information collected in the sibling history. Age-specific death rates are computed by dividing the number of deaths in each age group by the total person-months of exposure in that age group during a specified reference period. In total, female respondents to the CDHS 2000 reported 80,095 siblings, of whom 39,167 were sisters and 40,928 were brothers (Table 10.1). Direct estimates of age-specific mortality rates for males and females are shown in Table 10.4. To minimize the impact of possible heaping on years since death ending in zero and five, direct estimates are presented for the period 0-6 years before the survey, which roughly corresponds to 1994-2000. Although the number of sibling deaths during the period 1994-2000 is relatively large, because of the large sampling variability, it is preferable to aggregate the data over the age range 15-49. There are more male than female deaths in the seven years preceding the survey (719 compared with 546). The male mortality rate is 4.8 deaths per 1,000 population and, as expected, it is higher than the female mortality rate of 3.5 deaths per 1,000 population.

10.3 MATERNAL MORTALITY

Information on maternal mortality for the period 0-6 years before the survey is shown in Table 10.5. As previously mentioned, this period was chosen to reduce any possible heaping of reported years since death on five-year intervals. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility in the CDHS 2000 is 49 years), the overall rate for women age 15-49 is standardized by the age distribution of the survey respondents. Maternal deaths are defined as any death that occurred during pregnancy, childbirth, or within two months after the birth or termination of a pregnancy.³ Maternal mortality in Cambodia is high relative to developed countries. However, for each age group, maternal deaths are a relatively rare occurrence. As such,

³ This time-specific definition includes all deaths that occurred during the specified period even if the death is due to nonpregnancy-related causes. However, this definition is unlikely to result in overreporting of maternal deaths because most deaths to women in the specified period are due to maternal causes, and maternal deaths in general are more likely to be underreported than overreported.

Table 10.4 Adult mortality rates

Estimated adult mortality rates for women and men for the period 0-6 years prior to the survey, Cambodia 2000

FEMALE			
Age	Deaths	Exposure years	Mortality rates ¹
15-19	51	26,204	1.95
20-24	73	27,925	2.63
25-29	94	30,916	3.04
30-34	80	28,792	2.78
35-39	103	23,388	4.43
40-44	85	15,784	5.41
45-49	58	9,385	6.20
15-49	546	162,395	3.47 ^a
MALE			
15-19	70	28,268	2.49
20-24	137	28,903	4.75
25-29	122	30,983	3.93
30-34	148	27,835	5.33
35-39	133	18,670	7.15
40-44	66	10,939	6.08
45-49	42	7,116	5.88
15-49	719	152,714	4.79 ^a

Note: Exposure years are calculated using a life table technique; here, they represent the number of person-years that men or women are exposed to the probability of dying.

¹ Mortality rates are expressed per 1,000 population.

^a Age-adjusted rate

the age-specific pattern should be interpreted with caution. There were 263 maternal deaths in the seven years preceding the survey. The maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49, for the period 1994-2000 is 0.55. Maternal deaths accounted for 18 percent of all deaths to women age 15-49; in other words, about one in five Cambodian women who died in the seven years preceding the survey died from pregnancy or pregnancy-related causes.

The maternal mortality ratio, which is obtained by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate, is often considered a more useful measure of maternal mortality since it measures the obstetric risk associated with each live birth. Table 10.5 shows that the maternal mortality ratio for Cambodia for the period 1994-2000 is 437 deaths per 100,000 live births (or alternatively 4 deaths per 1,000 live births). The maternal mortality ratio can be converted to an estimate of the lifetime risk of dying from maternal causes: 0.02 or, in other words, a risk of dying of 1 in 50.

<u>Table 10.5 Direct estimates of maternal mortality</u>				
Direct estimates of maternal mortality for the period 0-6 years prior to the survey, Cambodia 2000				
Age	Maternal deaths	Exposure years	Mortality rates ¹	Proportion of maternal deaths to female deaths
15-19	3	26,204	0.12	6.1
20-24	11	27,925	0.41	15.6
25-29	26	30,916	0.86	28.1
30-34	23	28,792	0.80	28.7
35-39	28	23,388	1.18	26.7
40-44	7	15,784	0.43	7.9
45-49	2	9,385	0.24	3.9
Total	263	162,395	0.55 ^a	18.4
General fertility rate (GFR)			127 ^a	
Maternal mortality ratio (MMR) ²			437	
Lifetime risk of maternal death ³			0.02	

¹ Expressed per 1,000 woman-years of exposure
² Expressed per 100,000 live births; calculated as the maternal mortality rate divided by the general fertility rate
³ Lifetime risk of maternal death = $1 - (1 - (\text{MMR}/100,000)^{\text{TFR}})$, where TFR represents the total fertility rate for the period 0-6 years prior to the survey (=4.5)
^a Age-adjusted rate

INFANT AND CHILD MORTALITY

This chapter presents levels, trends, and differentials in neonatal, postneonatal, infant, and child mortality in Cambodia. Women's characteristics that place them at higher risk in terms of fertility outcomes are also discussed. Information on infant and child mortality rates not only enriches the understanding of a country's socioeconomic situation but also sheds light on the quality of life of the population under study. Studies of mortality indicators have shown the existence of differentials by socioeconomic and demographic characteristics; thus, the data in this report are disaggregated by these groupings.

Disaggregation of mortality indicators by different economic, social, and demographic categories helps to identify populations that are at high risk. Preparation, implementation, monitoring, and evaluation of population, health, and other socioeconomic programs and policies depend to a large extent on a target population. The data presented here can help identify at-risk populations and provide baseline indicators of the current mortality situation, which can be compared with data collected at a later point to determine whether improvements in health and quality of life have occurred over time.

The mortality rates presented in this chapter are computed from information in the birth history section of the Women's Questionnaire. Each woman age 15-49 was asked whether she had ever given birth, and if she had, she was asked to report the number of sons and daughters who live with her, the number who live elsewhere, and the number who have died. In addition, she was asked to provide a detailed birth history of her children in chronological order starting with the first child. Women were asked whether a birth was single or multiple; the sex of the child; the date of birth (month and year, either by the Gregorian or Khmer calendar system); survival status; age of the child on the date of interview if alive; and if not alive, the age at death of each live birth. The 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. Childhood mortality rates are defined as follows:

- **Neonatal mortality (NN):** the probability of dying within the first month of life
- **Postneonatal mortality (PNN):** the probability of dying between the first month of life and first birthday (computed as 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 (${}_5q_0$):** the probability of dying between birth and the fifth birthday.

11.1 ASSESSMENT OF DATA QUALITY

The reliability 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 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 arises from an underreporting of both births and deaths of children who are not alive at the time of the survey. It may be that mothers are generally reluctant to talk about their dead children because of the sorrow associated with any death, or they may live in a culture that discourages discussing the dead. 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. However, Table C.4 (refer to Appendix C) shows that the percentage of births for which a month and year of birth was reported remains stable over time, ranging from 100 percent of children in 2000 to 99 percent of children prior to 1981; there is little difference by whether or not the child is alive. This relative completeness of reporting may be in part because 71 percent of the women in Cambodia have attended at least some school (see Table 4.2) and may have achieved a greater degree of numeracy than less literate populations.

Age displacement is common in many surveys that include both demographic and health information for children below a specified age. In the CDHS 2000, the cutoff date for asking health questions was 1995. The calendar ratio column in Table C.4 shows that there is some age displacement across this boundary and, contrary to expectation, it is more obvious for dead than for living children. The distribution of living children, dead children, and total number of children shows a deficit in 1995 and an excess in 1994 as denoted by the calendar year ratios. This pattern could be attributed to the transference of births by interviewers out of the period for which health data were collected. However, the amount of transference is small, and mortality rates are unlikely to be affected by such displacement. The overall sex ratio of 105 is normal, and the sex ratio for dead children is 120 (reflecting a higher male mortality), compared with 103 for living children.

Underreporting of deaths is usually assumed to be higher for deaths that occur very early in infancy. 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 have not been severely underreported in the CDHS 2000, as suggested by the high ratio of deaths in the first seven days of life to all neonatal deaths.¹

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 under two years in months. In addition, they were trained to probe for deaths reported at exactly 1 year or 12 months to ensure that they had actually occurred at 12 months. The distribution of deaths under 2 years during the 20 years prior to the survey by month of death

¹ There are no model mortality patterns for the neonatal period. However, one review of data from several developing countries concluded that at levels of neonatal mortality of 20 per 1,000 or higher, approximately 70 percent of neonatal deaths occur within the first seven days of life (Boerma, 1988).

shows that there is heaping at 7, 8, and 12 months of age with corresponding deficits in adjacent months (refer to Table C.6 in Appendix C). The heaping that occurs at 7 and 8 months of age does not result in the transference of children from one age segment to another; children who died at 7 and 8 months are all categorized as postneonatal deaths. Heaping at 12 months may result in an underestimate of infant mortality and hence an overestimate of child mortality. However, the level of heaping found in the CDHS 2000 is not significant and is thus unlikely to result in these problems. Furthermore, heaping is less pronounced for deaths in the five years preceding the survey, for which the most recent mortality rates are calculated.

11.2 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

Table 11.1 presents neonatal, postneonatal, infant, child, and under-five mortality rates for the five most recent five-year periods before the survey. Normally, figures for mortality for the period 20-24 years before the survey are omitted, as they are certain to be underestimates due to truncation: the oldest group of women currently eligible for the survey—those age 45-49—would have been only 25-29 years of age during the period referenced. However, even this severe underestimation of early childhood deaths for the years 1975 to 1980 gives a sense of the impact of the Khmer Rouge regime on levels of mortality among even the youngest members of Cambodian society.

Table 11.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality for five-year periods preceding the survey, Cambodia 2000

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality ¹ (PNN)	Infant mortality (₁ Q ₀)	Child mortality (₄ Q ₁)	Under-five mortality (₅ Q ₀)
0-4	37.3	57.8	95.0	32.5	124.4
5-9	40.5	50.4	91.0	31.3	119.4
10-14	44.2	34.5	78.8	39.1	114.7
15-19	48.1	36.4	84.6	53.3	133.4
20-24	53.7	75.0	128.7	129.7	241.7

Note: All rates are calculated per 1,000 live births, with the exception of child mortality, which is calculated per 1,000 children surviving at their first birthday.

¹ Computed as the difference between the infant and the neonatal mortality rates.

Neonatal mortality in the most recent period is 37 per 1,000 live births. This rate is significantly lower than postneonatal deaths (58 per 1,000 live births) during the same period; that is, the risk of dying for any Cambodian child who survived the first month of life increases during the period of the next 11 months. Thus, almost one in every ten babies born in Cambodia (95 per 1,000) does not survive to his or her first birthday. Under-five mortality in Cambodia is 124 per 1,000 live births.

Data from the CDHS 2000 show that mortality had been declining in Cambodia over the past 25 years. Extremely high (despite being largely underestimated) mortality was registered during the Khmer Rouge years, with 129 infant deaths per 1,000 live births, and 242 under-five deaths per 1,000 live births. It seems inevitable that once the reign of the Khmer Rouge ended, a decrease in mortality would be evident, as is the case in the periods 15-19 and 10-14 years before the survey. However, for the periods 5-9 and 0-4 years before the survey, the CDHS 2000 registers an increase in mortality, particularly in the levels of infant mortality but also in the levels of under-five mortality (Figure 11.1).

Figure 11.1 Infant Mortality Trends

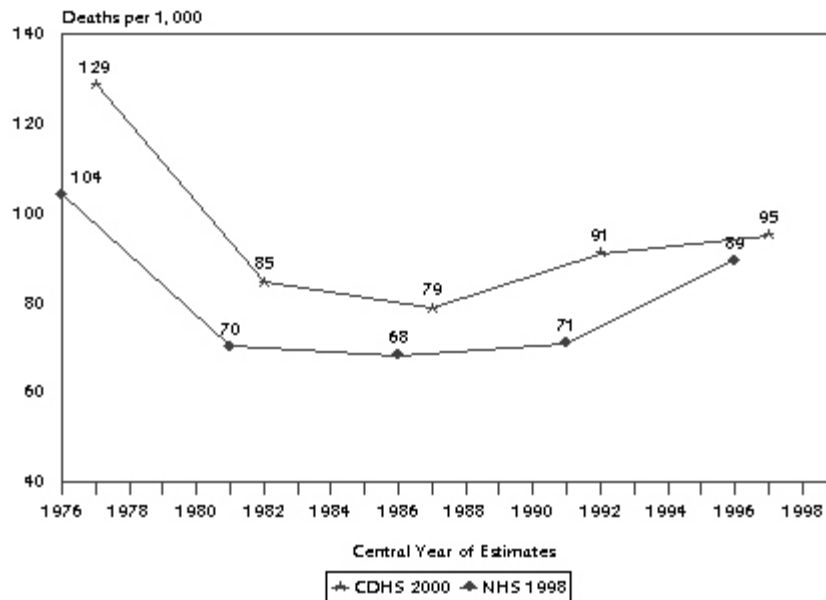
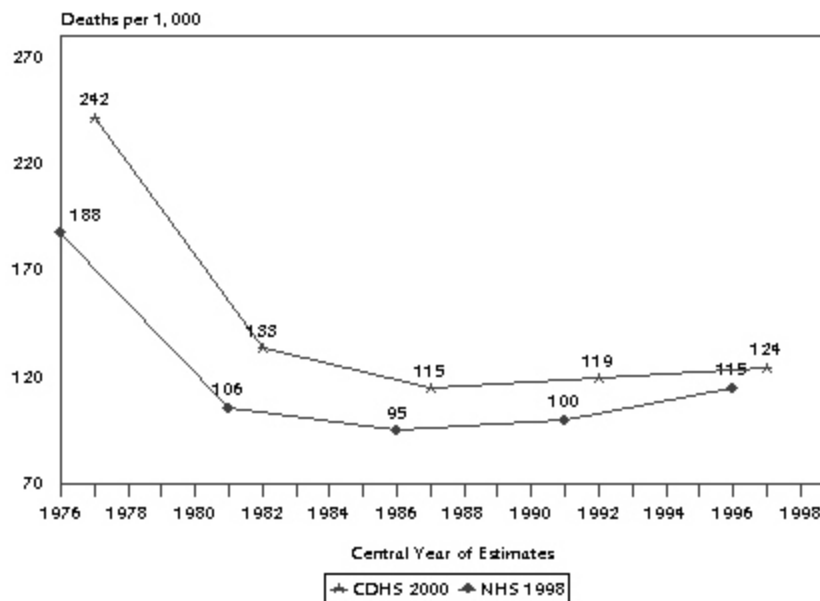


Figure 11.2 Under-Five Mortality Trends

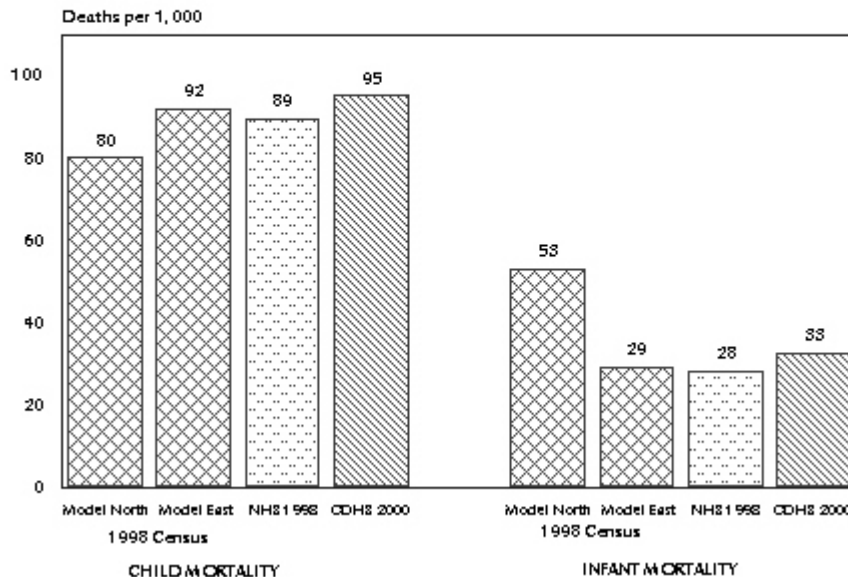


11.3 COMPARISON OF THE RESULTS OF THE CDHS SURVEY WITH PREVIOUS ESTIMATES OF MORTALITY

Estimates of infant and child mortality in Cambodia have been produced by three different recent data collection efforts: the 1998 General Population Census of Cambodia, the 1998 National Health Survey, and the 2000 Cambodia Demographic and Health Survey. Differences in the estimates, however, have been a source of confusion and controversy.

The major differences in infant and child mortality estimates are between the Census on the one hand and the CDHS and NHS surveys on the other. Whereas the CDHS 2000 produces an infant mortality rate of 95 and the NHS 1998 produces an infant mortality rate of 89, the 1998 Census estimates a rate of 80 infant deaths per 1,000 live births. Conversely, whereas the CDHS 2000 produces an under-five mortality rate of 124, and NHS 1998 produces an under-five rate of 115, the 1998 Census produces an under-five rate of 130 per 1,000 live births (see Figure 11.3). The smaller difference between the CDHS 2000 and the NHS 1998 is evidenced by the fact that the CDHS survey consistently reports higher mortality rates for each five-year period, although the time trends follow a similar pattern (Figures 11.1 and 11.2). This section of Chapter 11 will discuss the differences among the three sets of estimates and the procedures of their calculation in order to reconcile them as far as possible.

**Figure 11.3 Infant and Child Mortality
1998 Census, NHS 1998, and CDHS 2000**



Unlike the NHS 1998 or CDHS 2000, the 1998 General Population Census did not collect information on age at death for specific deaths but instead collected data on the number of children ever born (CEB) and the number surviving from female respondents. These data are aggregated by five-year age groups of respondents and are used to produce statistics on the proportion dead of CEB. The task of the indirect estimation technique is to transform the statistics on the proportion dead of CEB into well-defined mortality rates (i.e., infant, child, and under-five mortality rates). One way of doing this is by implementing the Coale-Demeny Regional Model Life Tables, which consist of four indirect estimation models that embody different age patterns of mortality (North,

South, East, and West). The discrepancies between the rates published by the 1998 General Population Census and those put forth by the NHS 1998 and the CDHS 2000 surveys are mainly because the Census chose a model (the North Region Coale-Demeny model) for its estimations that did not fit the age pattern of mortality in Cambodia. Figure 11.3 also presents estimates of mortality based on the Census using the East Region model. It is clear that by using this model, Census estimates would be consistent with both the NHS and the CDHS estimates.

Differences in the levels, although not the trends, of mortality estimations between the NHS 1998 and the CDHS 2000 also exist, and it is important to clarify the differences between these two sets of findings. Both the NHS and CDHS surveys were sample surveys and followed the exact same methodology. Whereas the time trends in mortality are similar, including the upward trend in infant mortality in recent years (Figures 11.1 and 11.2), the estimates for the CDHS survey are consistently higher than those produced by the NHS survey. For example, for the most recent period, the CDHS under-five mortality (124 per 1,000) is 8 percent higher than the NHS finding (115 per 1,000). Both estimates are subject to sampling variability; with a standard error of 4.9 per 1,000, the CDHS estimate has a 95 percent confidence interval of 114-134. Similarly, the confidence interval for the NHS estimate is 102-126 per 1,000. The overlapping confidence intervals indicate that the estimates are not inconsistent with each other.

However, the consistency with which the CDHS estimates exceed the NHS estimates suggests that other factors may have caused the differences. First, although the same procedures were used in both surveys for training and data collection, during the CDHS survey, much more time was spent in training, fieldwork supervision, and monitoring of data quality. Additionally, data collection in the CDHS survey proceeded much more slowly, so that while field activities were underway, it was possible to run all the standard consistency checks that are routine for DHS-type surveys. This and other kinds of monitoring were not feasible during the NHS survey, which may partially explain the somewhat lower mortality rates in that survey.

Second, both the NHS and CDHS surveys used a sampling frame based on the 1998 Census results. However, it was not possible for the NHS survey to be entirely nationally representative: due to security reasons, the provinces of Preah Vihear and Otdar Mean Chey, as well as other areas considered inaccessible by the Census Office, were excluded from the NHS sample. One can assume that due to lack of security, mortality may have been higher in these areas.

In summary, the differences in infant and child mortality estimates between the 1998 Census on the one hand and the CDHS 2000 and NHS 1998 on the other virtually disappear when a more appropriate indirect estimation model is used with the Census data. Differences in the estimates between the NHS 1998 and the CDHS 2000 are relatively small and are of an order of magnitude that is within sampling variability; however, there are compelling reasons, particularly with regard to data quality and sample coverage, for concluding that the estimates from the CDHS survey are the best estimates of current mortality levels in Cambodia.

11.4 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

From Table 11.2, it is apparent that infant and child survival is influenced by the socioeconomic characteristics of mothers.² Mortality in urban areas is consistently lower than in

² To have a sufficient number of cases to ensure statistically reliable mortality estimates, rates presented in Tables 11.2 and 11.3 are calculated for a ten-year period.

Table 11.2 Early childhood mortality by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality for the ten-year period preceding the survey, by socioeconomic characteristics, Cambodia 2000

Socioeconomic characteristic	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Residence					
Urban	27.0	45.3	72.3	21.8	92.6
Rural	40.9	54.8	95.7	33.5	126.0
Region					
Banteay Mean Chey	31.4	46.8	78.2	32.0	107.7
Kampong Cham	38.7	69.2	107.9	29.0	133.8
Kampong Chhnang	41.9	87.4	129.3	35.3	160.0
Kampong Spueu	26.4	41.9	68.3	22.7	89.5
Kampong Thum	38.8	25.7	64.5	36.7	98.8
Kandal	38.8	50.3	89.2	20.9	108.2
Kaoh Kong	31.5	39.2	70.7	21.6	90.8
Phnom Penh	14.0	23.6	37.6	12.6	49.7
Prey Veang	52.4	58.7	111.0	45.3	151.3
Pousat	51.0	88.4	139.4	38.7	172.7
Svay Rieng	56.2	45.8	102.0	30.7	129.6
Takaev	38.4	57.7	96.0	24.9	118.5
Bat Dambang/ Krong Pailin	38.3	59.7	98.0	31.7	126.6
Kampot/Krong Kaeb/ Krong Preah Sihanouk	42.0	58.4	100.4	26.7	124.4
Preah Vihear/Stueng Traeng/Kracheh	25.9	45.4	71.3	51.9	119.5
Mondol Kiri/ Rotanak Kiri	79.8	90.1	169.8	71.6	229.3
Siem Reab/Otdar Mean Chey	44.6	33.3	77.9	50.6	124.6
Mother's education					
No education	42.2	60.2	102.5	36.8	135.5
Primary	39.9	53.7	93.6	31.6	122.2
Secondary and higher	26.7	33.5	60.3	16.7	75.9
Assistance at delivery²					
Yes	34.7	39.3	74.0	NA	NA
No	38.5	66.3	104.8	NA	NA
Specific project area					
CDCP	37.1	46.2	83.4	30.0	110.9
BHSP	43.9	64.2	108.1	32.6	137.2
Total	39.1	53.6	92.7	31.9	121.6

NA = Not applicable

¹ Computed as the difference between the infant and the neonatal mortality rates

² Rates for the five-year period before the survey. Assistance at delivery is that given by trained personnel.

rural areas. For example, infant mortality in urban areas is 72 deaths per 1,000 live births, compared with 96 deaths per 1,000 live births in rural areas—33 percent higher in rural areas than in urban areas. The urban-rural difference is somewhat greater in the case of child mortality, which is 35 percent lower in urban areas than in rural areas. Differentials in mortality by region are also pronounced, particularly when observing the exaggerated differences between the lowest and highest infant and under-five rates of mortality: Phnom Penh has an infant mortality rate of 38, while Mondol Kiri/Rotanak Kiri has a rate four and a half times greater (170 infant deaths per 1,000 live births). Similarly, Phnom Penh's under-five mortality rate is 50, while that of Mondol Kiri/Rotanak Kiri is 229.

As expected, mortality declines markedly as mother's education increases. Children born to mothers with no education suffered the highest mortality. According to the survey results, educating mothers through secondary and higher levels reduces neonatal mortality by 37 percent, infant mortality by 41 percent, and under-five mortality by 44 percent, compared with mothers who had no education.

Survival of infants and children may also be influenced by access to maternal health care. Although there is not much difference according to whether a woman had assistance at delivery for neonatal mortality, there is a greater difference in levels of postneonatal mortality: 39 per 1,000 for births assisted at delivery died, in comparison to 66 per 1,000 live births among those who had no assistance at birth.

11.5 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Infant and child mortality is also influenced to a considerable extent by demographic characteristics of mothers and children. Table 11.3 and Figure 11.4 show the relationship between infant and child mortality and different demographic variables. At every period, male children experience higher mortality than female children. The gender difference is more pronounced for infant mortality than for either neonatal or under-five mortality, in which case 1 in 10 boys dies before his first birthday, compared with 1 in 12 girls. The excess mortality among boys is a universal phenomenon presumably due to a higher biological risk of death during the first months of life.

As expected, the relationship between maternal age at birth and childhood mortality is generally a U-shaped curve, being relatively higher among children born to mothers under age 20 and over age 40 than among mothers in the middle age groups. This pattern is especially obvious in the case of infant mortality, but less so in the case of neonatal mortality, where mothers between the ages of 30 and 39 are almost as likely to suffer their child's neonatal mortality as mothers between the ages 40-49 (rates of 42 and 41, respectively).

Normally, first births and high order births also suffer significantly higher rates of mortality than births that fall into the intermediate range. In Cambodia, while first order births are somewhat riskier than second through sixth order births, significant increases in risk are most apparent for birth order seven and higher. Short birth intervals also significantly reduce a child's chances of survival. For example, children born within two years of a preceding birth are almost three times (2.8 times) as likely to die within the first month of life as children born after a two-year interval.

Studies have shown that a child's weight at birth is an important determinant of its survival chances. Children's actual birth weights were unavailable for most children; instead, mothers in the CDHS 2000 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 the child's weight. Those children reported by their mother to be small or very small were two and a half times more likely to die before the age of one month than those reported to be average or larger.

Table 11.3 Early childhood mortality by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality for the ten-year period preceding the survey, by demographic characteristics, Cambodia 2000

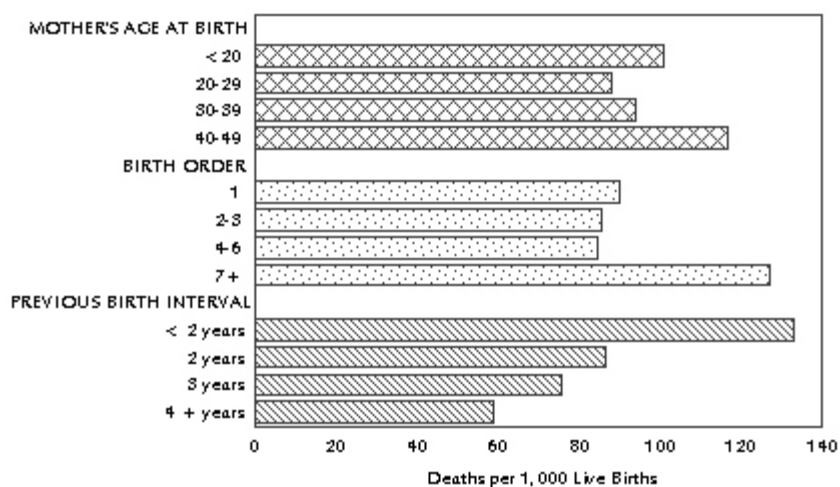
Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (₁ Q ₀)	Child mortality (₄ Q ₁)	Under-five mortality (₅ Q ₀)
Sex of child					
Male	44.0	58.8	102.8	33.5	132.8
Female	34.1	48.1	82.2	30.4	110.1
Mother's age at birth					
< 20	45.2	56.0	101.1	28.0	126.3
20-29	36.3	52.0	88.3	30.4	116.0
30-39	41.5	52.8	94.3	34.4	125.5
40-49	40.8	76.5	117.3	(43.4)	(155.6)
Birth order					
1	39.4	51.0	90.4	19.4	108.0
2-3	37.2	48.8	85.9	34.0	117.0
4-6	34.7	50.2	84.9	36.1	118.0
7+	52.6	75.1	127.7	35.2	158.3
Previous birth interval					
< 2 years	62.6	70.7	133.2	45.1	172.3
2 years	32.9	53.9	86.8	35.6	119.3
3 years	30.4	45.7	76.1	28.0	101.9
4 or more years	22.5	37.1	59.5	23.1	81.2
Birth size²					
Small or very small	72.5	72.4	145.0	NA	NA
Average or larger	29.3	50.0	79.3	NA	NA
Total	39.1	53.6	92.7	31.9	121.6

NA = Not applicable

¹ Computed as the difference between the infant and the neonatal mortality rates.

² Rates for the five-year period before the survey.

Figure 11.4 Infant Mortality by Selected Demographic Characteristics



Note: Rates are for the 10-year period preceding the survey

CDHS 2000

11.6 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.

Table 11.4 shows the percent distribution of children born to currently married women in the five years before the survey by these risk factors. Only 26 percent of births were in a “risk-free” category. Sixteen percent were first births to women between age 18 and 34—considered an unavoidable risk category—while 33 percent of births were in a single high-risk category, and 24 percent were in a multiple high-risk category. The most common single high-risk category was births of order three and above (21 percent), while the most common multiple high-risk category was births to mothers older than 34 years and of birth order three and above (15 percent).

The risk ratios displayed in the second column of Table 11.4 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. Most vulnerable are children born less than 24 months after a preceding birth and of a birth order greater than 3; they are nearly twice as likely to die as children who are not in any high-risk category. Six percent of births fall into this category. Among the single high-risk categories, that of a birth interval less than 24 months long results in a child running a 78 percent higher risk of dying than children not in any high-risk category; this group accounts for 8 percent of births. As shown in the final column of Table 11.4, almost four in five married women have the potential to give birth to a child with an elevated risk of mortality.

Table 11.4 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying 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, Cambodia 2000

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women ¹
	Percentage of births	Risk ratio	
Not in any high-risk category	26.4	1.00	16.5
Unavoidable risk category			
First order births between age 18 and 34	15.9	1.13	5.6
Single high-risk category			
Mother's age <18	2.8	1.20	0.7
Mother's age >34	2.2	1.07	5.0
Birth interval <24 months	7.6	1.78	7.9
Birth order >3	20.6	0.86	13.4
Subtotal	33.3	1.11	27.0
Multiple high-risk category			
Age <18 & birth interval <24 months	0.2	*	0.2
Age >34 & birth interval <24 months	0.2	*	0.5
Age >34 & birth order >3	14.9	1.44	36.6
Age >34 & birth interval <24 months and birth order >3	3.0	1.72	5.6
Birth interval <24 months and birth order >3	6.2	1.90	8.0
Subtotal	24.4	1.60	50.8
In any avoidable high-risk category	57.7	1.32	77.8
Total	100.0	NA	100.0
Number of births	8,175	NA	9,071

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

NA = Not applicable

¹ 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 3 or higher.

This chapter presents findings on important areas of maternal and child health: antenatal, delivery, and postnatal care; characteristics of the newborn; vaccination coverage; and common childhood illnesses (fever, acute respiratory infections, and diarrhea) and their treatment. This information, in combination with data on mortality, is useful in formulating programs and policies to improve maternal and child health services.

12.1 MATERNAL HEALTH

A mother's well-being has a direct impact on her children's well-being. Similarly, when one group fares poorly, so does the other. For newborns, survival is directly linked to a mother's health during pregnancy.

12.1.1 Perceived problems in accessing women's health care

Many different factors can prevent women from getting medical advice or treatment for themselves. In the CDHS 2000, women were asked about various problems they face in accessing health care. Table 12.1 shows that more than 90 percent of women reported having one or more problems in accessing health care for themselves.

The main problem in accessing health care was not getting money for treatment (88 percent). Two in five women did not know where to go for health care. The same proportion of women faced problems related to distance to the health facility and need for transportation. Forty-five percent of women reported that they did not want to go alone to the health facility. Almost 50 percent of the women in the age group 15-19 were aware of the places where they could go, but almost one-third of the women in this age group faced problems in getting permission to go to a health facility. Older women were more likely to go alone, compared with younger women. Never-married women and women residing in rural locations faced more problems in accessing health care. As expected, rural women were twice as likely to have problems related to distance to the health facility and need for transportation as urban women. Women with no education were more likely to have problems related to lack of money for treatment and not knowing where to go for health care.

12.1.2 Antenatal care

The health care that a mother receives during pregnancy and at the time of delivery is important for the survival and well-being of both the mother and the child. Antenatal care (ANC) coverage is described according to the type of provider, number of ANC visits, stage of pregnancy at the time of the first and last visits, and services and information provided during ANC. It is also recommended that women receive two doses of tetanus toxoid vaccine, adequate amounts of iron and folic acid tablets, and iron syrup to prevent and treat anemia. Blood pressure checks and procedures to detect pregnancy complications are also part of ANC coverage. A well-designed and implemented ANC program facilitates detection and treatment of problems during pregnancy, such as anemia and infections, and provides an opportunity to disseminate health messages to women and their families.

Table 12.1 Perceived big problem in accessing women's health care by background characteristics

Percentage of women who reported they had a big problem in accessing health care for themselves, by type of problem and background characteristics, Cambodia 2000

Background characteristic	Knowing where to go	Getting permission to go	Getting money for treatment	Distance to health facility	Have to take transport	Not wanting to go alone	Lack of a female health provider	Not wanting to leave/house children alone	Any of the specified problems	Number of women
Mother's age at birth										
15-19	52.6	35.1	89.7	43.9	44.9	65.7	52.4	24.0	95.8	3,618
20-29	40.5	21.4	87.8	38.9	40.9	42.9	31.1	24.8	93.2	4,100
30-39	38.5	17.6	87.6	39.0	41.3	36.7	25.6	31.9	91.6	4,362
40-49	37.8	16.8	87.3	39.8	41.2	33.4	22.0	26.9	91.1	3,272
Birth order										
1	49.0	30.4	88.9	41.2	43.7	60.1	48.4	21.5	94.8	5,800
2-3	37.0	16.6	86.3	36.2	38.1	35.2	22.0	28.7	91.1	3,568
4-5	38.2	18.2	86.5	39.9	40.0	34.2	23.6	32.6	91.2	3,132
6+	39.4	18.8	90.4	44.1	45.5	35.7	23.8	30.5	93.4	2,851
Marital status										
Never married	50.5	32.2	89.9	41.8	44.3	62.5	50.6	21.8	95.6	4,884
Married	38.4	18.4	87.0	39.4	40.5	36.5	24.4	30.1	91.7	9,071
Divorced, separated, widowed	37.9	15.5	89.2	40.7	43.5	32.9	22.7	26.2	91.7	1,396
Residence										
Urban	39.4	17.2	81.9	21.2	25.5	42.4	32.6	24.8	91.4	2,692
Rural	42.8	23.7	89.4	44.4	45.5	44.9	32.6	27.6	93.2	12,659
Region										
Banteay Mean Chey	26.2	20.6	89.5	34.1	37.7	30.6	16.1	25.0	98.5	672
Kampong Cham	14.0	5.9	91.1	25.8	22.2	36.1	29.2	15.4	95.1	1,961
Kampong Chhnang	25.7	20.0	96.9	46.7	37.3	57.1	54.4	54.2	99.0	583
Kampong Spueu	63.0	23.6	99.5	70.2	61.4	34.3	8.7	15.2	99.9	725
Kampong Thum	78.6	43.3	99.3	71.2	67.5	45.0	21.9	2.7	99.8	777
Kandal	56.7	46.5	92.5	60.1	68.8	63.8	53.8	44.9	95.3	1,469
Kaoh Kong	25.1	12.3	82.6	40.9	38.8	13.6	13.0	22.4	86.1	147
Phnom Penh	45.3	8.4	77.3	10.9	17.8	53.9	35.8	30.7	93.3	1,657
Prey Veaeang	16.9	7.8	55.3	12.9	15.4	20.8	18.6	10.8	60.3	1,272
Pousat	61.9	21.6	87.5	62.9	67.7	62.0	50.0	59.4	97.6	433
Svay Rieng	43.7	17.2	81.0	38.1	38.6	30.0	14.8	21.2	89.6	688
Takaev	28.9	13.1	99.0	32.5	52.2	37.0	16.3	16.6	99.9	1,107
Bat Dambang/ Krong Pailin	37.1	27.1	88.7	31.2	32.4	32.7	31.0	20.7	90.9	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	78.1	49.5	96.9	70.6	66.8	76.7	82.4	63.9	99.2	999
Preah Vihear/Stueng Traeng/Kracheh	34.7	20.2	94.9	46.0	49.3	32.1	18.3	22.4	96.5	582
Mondol Kiri/ Rotanak Kiri	84.1	56.4	91.5	75.6	76.5	50.2	55.0	50.4	94.3	161
Siem Reab/Otdar Mean Chey	55.2	28.1	92.2	48.8	43.3	57.7	27.4	23.6	95.5	1,036
Education										
No education	45.5	24.4	92.0	49.2	48.9	45.1	30.8	28.2	95.1	4,338
Primary	42.3	23.3	88.4	41.0	43.4	44.1	32.9	27.7	92.4	8,376
Secondary and higher	36.7	17.4	80.7	23.7	26.1	44.6	34.6	23.3	91.0	2,637
Current employment										
Not employed	41.4	20.7	88.6	31.7	39.6	43.5	30.0	25.6	95.1	2,738
Works for cash	44.8	25.3	87.8	37.9	39.6	44.5	35.0	30.6	93.8	5,838
Does not work for cash	40.3	20.9	88.2	45.8	45.0	44.9	31.6	24.7	91.3	6,772
Total	42.2	22.6	88.1	40.3	42.0	44.5	32.6	27.1	92.9	15,351

Note: Total includes 3 women for whom information on current employment is not available.

Information on ANC coverage was obtained from women who had a birth in the five years preceding the survey. For women with two or more live births during the five-year period, data refer to the most recent birth only.

Source of antenatal care

Table 12.2 and Figure 12.1 show the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy. Fewer than two in five (38 percent) women received ANC from any trained personnel (doctors, nurses, and midwives). Of this proportion, 32 percent of women received care during pregnancy from midwives, 5 percent

Table 12.2 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by source of antenatal care (ANC) during pregnancy, according to maternal and background characteristics, Cambodia 2000

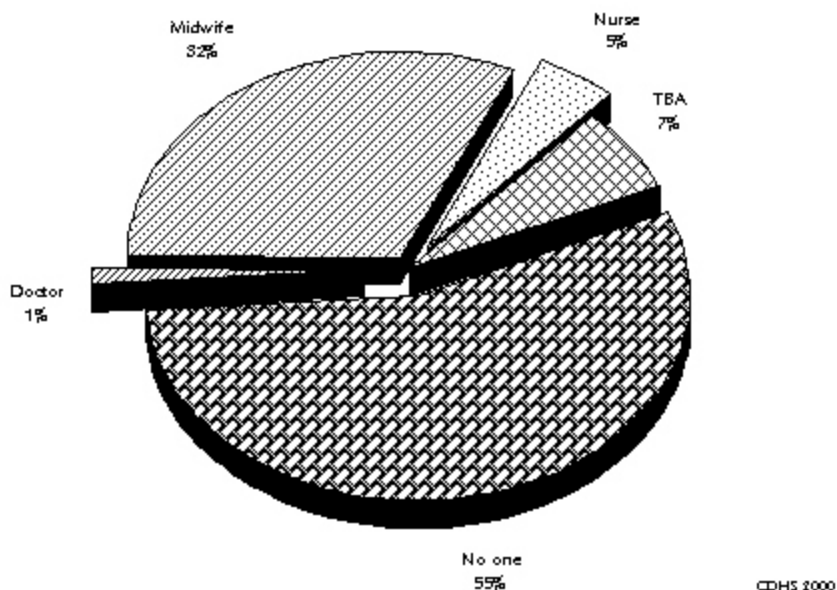
Background characteristic	Doctor	Nurse	Midwife	Any trained personnel	Traditional birth attendant	Kru Khmer/ other	No one	Total	Number
Mother's age at birth									
<20	1.1	5.8	38.6	45.5	5.3	0.0	49.1	100.0	465
20-34	1.4	4.6	33.0	38.9	6.4	0.1	54.3	100.0	3,921
35-49	0.6	5.3	25.2	31.1	8.2	0.1	60.1	100.0	1,329
Birth order									
1	1.5	5.9	41.7	49.1	6.7	0.0	44.2	100.0	975
2-3	1.3	5.1	37.2	43.6	5.5	0.1	50.6	100.0	2,053
4-5	1.4	3.2	27.0	31.6	8.2	0.2	59.9	100.0	1,296
6+	0.6	5.4	20.6	26.5	7.4	0.0	65.5	100.0	1,391
Residence									
Urban	3.0	3.6	55.7	62.3	5.0	0.0	32.7	100.0	779
Rural	0.9	5.1	27.8	33.8	7.0	0.1	58.8	100.0	4,935
Region									
Banteay Mean Chey	0.6	1.6	34.9	37.1	10.6	0.3	51.9	100.0	292
Kampong Cham	0.3	9.0	24.4	33.7	1.8	0.0	63.5	100.0	785
Kampong Chhnang	0.0	13.7	32.3	46.0	13.2	0.0	40.8	100.0	245
Kampong Spueu	1.1	6.5	20.7	28.3	3.2	0.3	68.2	100.0	342
Kampong Thum	0.8	5.3	22.8	28.9	8.9	0.0	62.2	100.0	306
Kandal	1.7	5.1	39.4	46.2	1.0	0.7	51.9	100.0	496
Kaoh Kong	1.6	0.3	24.2	26.1	0.9	0.0	72.2	100.0	67
Phnom Penh	6.1	2.8	75.0	84.0	0.0	0.0	16.0	100.0	336
Prey Veang	0.0	2.0	16.3	18.3	2.3	0.0	79.4	100.0	450
Pousat	0.2	1.9	40.2	42.3	5.0	0.0	52.7	100.0	186
Svay Rieng	1.3	6.6	38.6	46.5	2.3	0.0	50.2	100.0	229
Takaev	1.6	3.4	30.2	35.2	6.1	0.0	58.2	100.0	434
Bat Dambang/ Krong Pailin	2.4	9.9	35.9	48.2	4.2	0.0	47.6	100.0	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	1.0	0.6	32.8	34.3	0.3	0.0	65.4	100.0	384
Preah Vihear/Stueng Traeng/Kracheh	0.7	1.0	38.4	40.0	7.2	0.0	52.8	100.0	249
Mondol Kiri/Rotanak Kiri	1.0	0.7	14.0	15.7	3.6	0.2	80.3	100.0	87
Siem Reab/Otdar Mean Chey	0.0	1.5	19.3	20.8	42.5	0.0	36.5	100.0	409
Education									
No education	0.5	3.9	20.3	24.8	9.8	0.1	65.3	100.0	1,827
Primary	0.8	5.2	30.8	36.8	5.6	0.1	57.1	100.0	3,069
Secondary and higher	4.1	5.6	60.1	69.7	4.3	0.0	25.6	100.0	818
Specific project areas									
CDCP	1.6	4.4	35.3	41.3	8.0	0.1	50.5	100.0	2,922
BHSP	0.6	6.7	26.3	33.5	4.1	0.0	61.8	100.0	2,142
Total	1.2	4.9	31.6	37.7	6.8	0.1	55.2	100.0	5,714

Note: For women with two or more live births in the five-year period, data refer to the most recent birth. If more than one source of ANC care was mentioned, only the provider with the highest qualifications is considered in this tabulation. Total includes women with missing information on antenatal care, who are not shown separately.

received care from a nurse, and only 1 percent went to a doctor. However, more than half (55 percent) of women received no antenatal care for births in the preceding five years. These findings are similar to the ones reported in the NHS 1998.

Women under age 20 are more likely to receive antenatal care from trained personnel, compared with older women. Among older women (age group 35-49 years), 60 percent did not receive ANC. Mothers are more likely to receive care from a health professional for first births (50 percent) than for births of order six and higher (27 percent). There are large differences in the use of antenatal care services between urban and rural women. Health professionals provided antenatal care for 62 percent of mothers in urban areas and only 34 percent of mothers in rural areas. Additionally, in rural areas, 59 percent of women received no antenatal care at all, compared with 33 percent in urban areas.

Figure 12.1 Source of Antenatal Care



Regional differences in the source of antenatal care are significant: 84 percent of mothers in Phnom Penh received antenatal care from a health professional, compared with one in six mothers in Mondol Kiri/Rotanak Kiri. The percentage of mothers who received no antenatal care is the highest in Mondol Kiri/Rotanak Kiri and Prey Veang (80 and 79 percent, respectively) and the lowest in Phnom Penh (16 percent).

The use of antenatal care services is highly associated with the mother's level of education. Women with a secondary education or higher are more likely to receive antenatal care from any trained personnel (70 percent) than less educated women (37 percent) and women with no education (25 percent). Similarly, 60 percent of uneducated women receive no antenatal care, whereas the proportion of women who receive no care decreases to 57 percent and 26 percent for women with primary and secondary education or higher, respectively.

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued throughout pregnancy. Health professionals recommend that the first antenatal visit should occur within the first three months of the pregnancy and continue on a monthly basis through week 28 of pregnancy and fortnightly up to week 36 (or until birth). If the first antenatal visit is made at the third month of pregnancy and as regularly as recommended, there will be a total of at least 12 to 13 antenatal visits. Table 12.3 shows that only 9 percent of women make four or more antenatal care visits during their entire pregnancy.

The median number of antenatal care visits is 1.9, which is about six times less than the recommended number of 12 or 13 visits. Twenty-three percent of women make their first antenatal care visit before the sixth month of pregnancy. The median duration of pregnancy for the first antenatal care visit is 5.8 months. This indicates that in Cambodia, women start antenatal care at a relatively late stage of their pregnancy.

Components of antenatal care

The effectiveness of antenatal checkups in ensuring safe motherhood depends in part on the tests and measurements done and the advice given during the checkups. The CDHS 2000 collected information on this important aspect of antenatal care by asking mothers who received antenatal checkups whether they received each of several components of ANC during their last pregnancy in the five years preceding the survey. Respondent were also asked whether they took iron tablets and antimalarials during pregnancy. Forty percent of mothers who received antenatal care reported that they were informed about pregnancy-related complications during their visits. Blood pressure was part of antenatal care for 61 percent of mothers. Urine and blood samples were taken from 17 and 15 percent of women respectively. About one-fifth (21 percent) of women took iron tablets during pregnancy. A small proportion of women (2 percent) also reported having received antimalarials.

Urban-rural differences are noticed for various components of antenatal care. Urban women are about twice as likely to take iron and antimalarials and about three times as likely to give blood and urine for testing. Forty-eight percent of urban women were also informed of signs of pregnancy complications, compared with 38 percent of rural women. Urban women were more likely to get their blood pressure measured than rural women. Regional variations in antenatal care content are marked. Women residing in the capital city Phnom Penh received all the components of antenatal checkups more often than mothers from other regions. Antenatal care content is also greatly affected by the level of mother's education. Women with secondary or higher education were more likely to have received all routine tests than less educated women. Similarly, women with primary education were more likely to get ANC (all components) than women with no education. Women who were pregnant with their first child were more likely to receive all components of ANC.

Table 12.3 Number of antenatal care visits and stage of pregnancy

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Cambodia 2000

Number and timing of ANC visits	Percentage of women
Number of ANC visits	
None	55.2
1	12.7
2-3	21.6
4+	8.9
Don't know/missing	1.6
Total	100.0
Median number of visits (for those with ANC)	1.9
Number of months pregnant at time of first ANC visit	
No antenatal care	55.2
<6 months	23.3
6-7 months	12.1
8+ months	7.4
Don't know/missing	2.0
Total	100.0
Median months pregnant at first visit (for those with ANC)	5.8
Number of live births	5,714

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

Table 12.4 Antenatal care content

Percentage of women who had a live birth in the five years preceding the survey who received antenatal care, by content of antenatal care and percentage of women who had a live birth in the five years preceding the survey who took iron tablets and antimalarials during pregnancy by background characteristics, Cambodia 2000

Background characteristic	Informed of signs of pregnancy complications	Blood pressure measured	Urine sample given	Blood sample given	Number of women who received antenatal care	Took iron tablets	Took anti-malarials	Number of women who had a live birth in the past 5 years
Mother's age at birth								
<20	42.1	65.5	17.7	17.8	236	27.4	2.5	465
20-34	40.9	62.8	18.7	16.1	1,783	21.5	2.3	3,921
35-49	36.8	54.0	12.3	11.2	523	16.0	2.5	1,329
Birth order								
1	42.5	65.4	22.2	21.9	544	26.2	1.9	975
2-3	40.5	65.9	19.5	17.3	1,009	23.8	2.2	2,053
4-5	41.5	57.9	15.5	11.8	518	18.1	2.4	1,296
6+	35.1	50.1	8.6	7.1	472	14.8	2.8	1,391
Residence								
Urban	47.9	77.1	33.0	29.2	524	35.4	4.1	779
Rural	38.1	57.2	13.2	11.6	2,019	18.4	2.1	4,935
Region								
Banteay Mean Chey	15.5	38.0	6.4	5.8	140	23.8	1.9	292
Kampong Cham	32.7	68.1	6.0	10.3	279	15.8	2.1	785
Kampong Chhnang	32.0	61.7	1.6	2.0	145	28.3	0.7	245
Kampong Spueu	45.7	42.2	15.8	12.9	109	18.1	1.9	342
Kampong Thum	34.6	53.0	5.1	3.6	115	15.6	0.8	306
Kandal	35.3	64.7	22.2	7.7	237	16.8	0.7	496
Kaoh Kong	17.3	54.6	8.0	5.5	18	10.6	7.0	67
Phnom Penh	60.9	88.1	59.8	50.1	282	38.6	1.7	336
Prey Veang	42.2	57.9	10.4	8.8	93	6.1	1.0	450
Pousat	46.2	68.3	5.4	8.7	88	38.1	5.3	186
Svay Rieng	48.5	83.0	9.2	8.3	112	39.2	0.0	229
Takaev	56.1	57.4	7.7	11.6	179	23.6	0.5	434
Bat Dambang/ Krong Pailin	61.2	72.9	43.8	26.9	219	33.4	3.2	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	54.7	83.5	15.2	30.8	133	11.9	3.5	384
Preah Vihear/Stueng								
Traeng/Kracheh	30.6	41.5	2.8	8.5	117	15.6	4.4	249
Mondol Kiri/Rotanak Kiri	28.5	41.5	4.2	13.0	17	8.1	9.5	87
Siem Reab/Otdar								
Mean Chey	11.7	27.1	2.5	4.3	259	16.9	6.2	409
Education								
No education	27.6	42.5	9.4	6.7	633	11.9	2.7	1,827
Primary	40.3	62.3	14.2	13.7	1,304	20.3	2.1	3,069
Secondary and higher	52.9	78.6	32.0	27.5	606	42.2	2.3	818
Total	40.1	61.3	17.3	15.3	2,543	20.7	2.3	5,714

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

Coverage of tetanus toxoid vaccinations

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, an important cause of death among infants. Neonatal tetanus is most common among children who are delivered in unhygienic environments and when unsterilized instruments are used to cut the umbilical cord. Tetanus usually develops during the first or second week of life and is fatal in 70 to 90 percent of cases. Neonatal tetanus, however, is a preventable disease. Two doses of tetanus vaccine given one month apart during early pregnancy are nearly 100 percent effective in preventing tetanus among both newborn infants and mothers. If a woman has been vaccinated during a previous pregnancy, she may require only one dose for the current pregnancy. When the mother is vaccinated, immunity against tetanus is transferred to the fetus through the placenta.

Table 12.5 Tetanus toxoid injections

Percent distribution of women who had a live birth in the five years preceding the survey by number of tetanus toxoid injections mother received during pregnancy, according to background characteristics, Cambodia 2000

Background characteristic	No injection	One dose	Two doses or more	Don't know/ Missing	Total	Number
Mother's age at birth						
<20	50.5	15.8	33.0	0.7	100.0	465
20-34	52.4	15.1	31.4	1.1	100.0	3,921
35-49	60.1	13.7	24.7	1.6	100.0	1,329
Birth order						
1	49.0	14.0	36.2	0.8	100.0	975
2-3	50.3	15.7	32.9	1.1	100.0	2,053
4-5	54.3	15.8	28.3	1.7	100.0	1,296
6+	63.0	13.2	22.9	1.0	100.0	1,391
Residence						
Urban	39.2	15.4	45.0	0.3	100.0	779
Rural	56.4	14.7	27.6	1.3	100.0	4,935
Region						
Banteay Mean Chey	55.3	14.0	29.5	1.2	100.0	292
Kampong Cham	51.2	13.4	30.0	5.5	100.0	785
Kampong Chhnang	49.9	16.0	33.2	0.9	100.0	245
Kampong Spueu	53.9	16.7	29.1	0.3	100.0	342
Kampong Thum	59.1	13.0	27.9	0.0	100.0	306
Kandal	34.4	24.5	40.5	0.7	100.0	496
Kaoh Kong	78.7	9.3	10.8	1.3	100.0	67
Phnom Penh	20.4	24.1	54.7	0.8	100.0	336
Prey Veaeang	82.9	7.7	9.1	0.3	100.0	450
Pousat	50.1	16.7	33.2	0.0	100.0	186
Svay Rieng	45.1	18.8	34.5	1.6	100.0	229
Takaev	47.2	17.5	34.8	0.5	100.0	434
Bat Dambang/Krong Pailin	52.8	14.4	32.8	0.0	100.0	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	59.1	10.7	29.9	0.3	100.0	384
Preah Vihear/Stueng Traeng/ Kracheh	66.4	11.7	21.9	0.0	100.0	249
Mondol Kiri/Rotanak Kiri	75.1	7.4	17.3	0.2	100.0	87
Siem Reab/Otdar Mean Chey	72.0	8.4	19.3	0.3	100.0	409
Mother's education						
No education	66.5	13.4	19.2	0.8	100.0	1,827
Primary	52.9	15.6	30.2	1.4	100.0	3,069
Secondary and higher	30.7	14.9	53.3	1.2	100.0	818
Total	54.1	14.8	30.0	1.2	100.0	5,714

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

In the CDHS 2000, information was collected on the number of doses of tetanus toxoid the mother received during last pregnancy in the five years preceding the survey. The results are presented in Table 12.5. A little more than one in seven (15 percent) women received one dose of the vaccine. Two or more doses were received by 30 percent of women. It is disconcerting to know that more than half (54 percent) of pregnant women had not received the tetanus toxoid vaccine. In general, women less than 20 years of age, with a higher education, pregnant with their first child, and living in urban locations were more likely to get two or more doses of tetanus toxoid injections. Differences were marginal for the first dose of tetanus toxoid.

12.1.3 Maternal night blindness

Night blindness is an eye disorder in which vision is abnormally impaired in dim light or at night. It is caused by a deficiency of visual purple (rhodopsin) in the light-sensitive rod cells of the retina at the back of the eye. Night blindness most commonly occurs as a result of retinitis pigmentosa, a degenerative condition of the retina. Visual purple may also decrease if there is a dietary deficiency of vitamin A—its principal component. This is the earliest sign of vitamin A deficiency and is seen most commonly in young children and pregnant and lactating women in poor countries. Night blindness during pregnancy and lactation is an evident consequence of the exacerbation of chronic vitamin A deficiency.

Table 12.6 shows that 8 percent of women reported having suffered from night blindness during their last pregnancy. Please note that this could be an overestimation because some mothers who report vision difficulties in the daytime as well

as at night may not actually be suffering from night blindness related to vitamin A deficiency during pregnancy. Thus, interpreting our data with caution, the CDHS survey finds that women with six or more births (11 percent) were twice as likely to suffer from night blindness as women with one birth (6 percent). This was also true for women with no education (11 percent), compared with highly educated women (5 percent). Women residing in rural areas and those who were in the age group 35-49 were more likely to suffer from night blindness. There were significant regional variations: Siem Reab/Otdar Mean Chey had the highest percentage of women who reported night blindness, compared with Phnom Penh with the lowest (1 percent).

Table 12.6 Night blindness

Percentage of women who reported having suffered night blindness when they were pregnant with the last live birth in the five years preceding the survey, according to background characteristics, Cambodia 2000

Background characteristic	Percentage who reported night blindness	Number of women
Mother's age at birth		
<20	8.3	465
20-34	7.7	3,921
35-49	10.5	1,329
Birth order		
1	5.5	975
2-3	7.7	2,053
4-5	8.6	1,296
6+	11.3	1,391
Residence		
Urban	6.2	779
Rural	8.8	4,935
Region		
Banteay Mean Chey	2.5	292
Kampong Cham	7.6	785
Kampong Chhnang	10.2	245
Kampong Spueu	5.6	342
Kampong Thum	12.0	306
Kandal	4.3	496
Kaoh Kong	5.3	67
Phnom Penh	1.2	336
Prey Veaeng	8.4	450
Pousat	8.2	186
Svay Rieng	7.9	229
Takaev	5.6	434
Bat Dambang/Krong Pailin	16.4	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	9.7	384
Preah Vihear/Stueng Traeng/ Kracheh	8.6	249
Mondol Kiri/Rotanak Kiri	6.4	87
Siem Reab/Otdar Mean Chey	18.4	409
Mother's education		
No education	10.5	1,827
Primary	8.2	3,069
Secondary and higher	4.6	818
Total	8.4	5,714

12.2 CHILDBIRTH AND DELIVERY

An important component of efforts to reduce the health risks of mothers and children is to increase the proportion of babies delivered under the supervision of health professionals. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may cause death or serious illness to either the mother or the baby or both. Data on delivery care was obtained for all births that occurred in the five years preceding the survey.

Table 12.7 Place of delivery

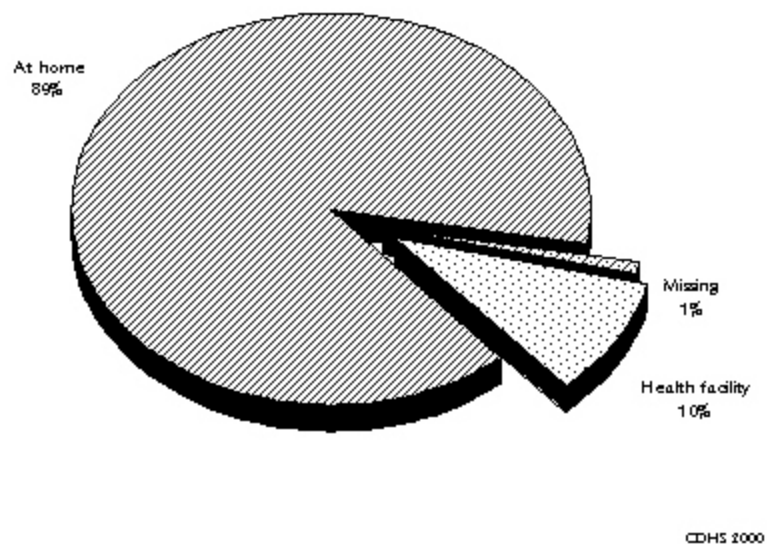
Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Cambodia 2000

Background characteristic	Health facility	At home	Other	Missing	Total	Number
Mother's age at birth						
<20	11.5	87.3	0.5	0.7	100.0	730
20-34	10.7	88.2	0.1	0.9	100.0	5,791
35-49	6.5	92.2	0.2	1.0	100.0	1,653
Birth order						
1	19.1	79.6	0.4	0.9	100.0	1,555
2-3	11.5	87.4	0.2	1.0	100.0	2,964
4-5	6.1	92.9	0.2	0.8	100.0	1,778
6+	3.6	95.4	0.0	1.0	100.0	1,877
Residence						
Urban	33.9	65.9	0.0	0.2	100.0	1,076
Rural	6.3	92.5	0.2	1.0	100.0	7,098
Region						
Banteay Mean Chey	6.8	91.7	0.2	1.3	100.0	418
Kampong Cham	5.2	92.0	0.2	2.5	100.0	1,135
Kampong Chhnang	6.3	92.8	0.3	0.6	100.0	385
Kampong Spueu	4.8	95.2	0.0	0.0	100.0	478
Kampong Thum	3.1	96.7	0.0	0.2	100.0	441
Kandal	13.6	84.4	0.9	1.0	100.0	700
Kaoh Kong	6.8	90.2	0.7	2.3	100.0	94
Phnom Penh	70.7	29.0	0.3	0.0	100.0	433
Prey Veang	2.4	97.3	0.0	0.3	100.0	599
Pousat	6.0	92.9	0.0	1.1	100.0	276
Svay Rieng	3.4	93.1	0.0	3.5	100.0	323
Takaev	9.0	90.4	0.0	0.6	100.0	610
Bat Dambang/ Krong Pailin	10.2	89.4	0.0	0.4	100.0	633
Kampot/Krong Kaeb/ Krong Preah Sihanouk Preah Vihear/Stueng	10.3	89.7	0.0	0.0	100.0	520
Traeng/Kracheh	5.5	94.0	0.2	0.3	100.0	369
Mondol Kiri/Rotanak Kiri Siem Reab/Otdar Mean Chey	6.1	93.5	0.0	0.4	100.0	140
	1.9	97.1	0.2	0.8	100.0	619
Mother's education						
No education	3.3	95.8	0.1	0.9	100.0	2,685
Primary	8.4	90.2	0.3	1.1	100.0	4,379
Secondary and higher	32.0	67.5	0.0	0.5	100.0	1,110
Specific project areas						
CDCP	14.1	85.3	0.2	0.4	100.0	4,161
BHSP	5.4	93.0	0.1	1.5	100.0	3,053
Total	9.9	89.0	0.2	0.9	100.0	8,175

Place of delivery

An overwhelming majority of births (89 percent) in the five years before the survey were delivered at home (Table 12.7 and Figure 12.2). The NHS 1998 also found that 90 percent of births in Cambodia occur at home or in other nonmedical facilities. Women are more likely to deliver their first birth at a health facility, compared with higher birth orders. Children born in urban areas (34 percent) are five times more likely to be delivered in a health facility than children born in rural areas (6 percent). The proportion of births delivered in a health facility is low in all regions (14 percent or less) except Phnom Penh (71 percent). There is also a strong association between the level of education of mothers and the place of delivery. The proportion of births delivered in a health facility is only 3 percent for uneducated mothers, compared with 32 percent for mothers with secondary and higher education.

Figure 12.2 Percent Distribution of Live Births by Place of Delivery



Assistance at delivery

Obstetric care by a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Table 12.8 shows the type of assistance during delivery by selected background characteristics. Two-thirds of births are delivered with the assistance of a traditional birth attendant (TBA), which is similar to the findings in the NHS 1998. Thirty-two percent of births are delivered with the assistance of a trained health professional, that is, a doctor, nurse, or midwife. Births to young mothers (less than 35 years) and first births are more likely to be assisted by a trained health professional.

Table 12.8 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by type of assistance during delivery, according to background characteristics, Cambodia 2000

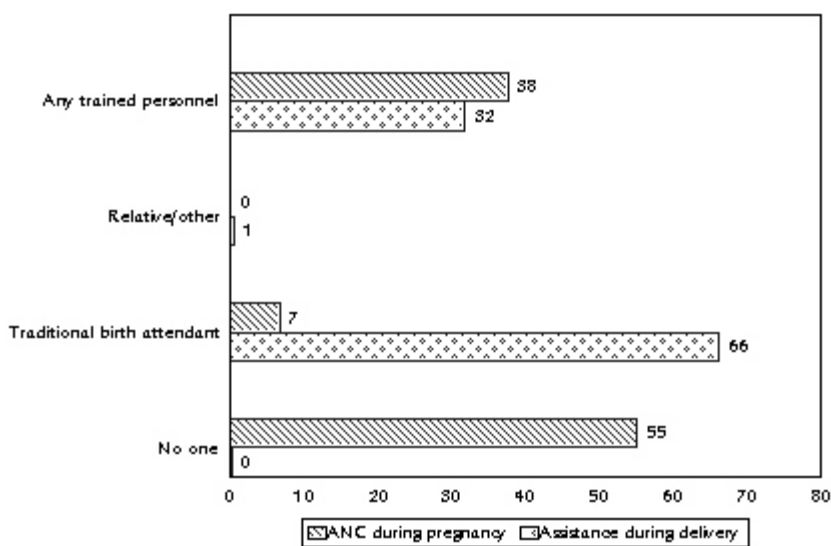
Background characteristic	Doctor	Nurse	Midwife	Any trained personnel	Traditional birth attendant	Relative/other	No one	Missing	Total	Number
Mother's age at birth										
<20	2.7	1.8	29.9	34.5	62.7	1.4	0.3	1.1	100.0	730
20-34	2.4	1.7	29.1	33.1	65.1	0.6	0.2	1.0	100.0	5,791
35-49	1.5	1.3	23.4	26.2	72.0	0.4	0.1	1.3	100.0	1,653
Birth order										
1	4.6	2.3	36.5	43.4	54.5	0.8	0.3	1.0	100.0	1,555
2-3	2.2	2.1	31.8	36.0	62.0	0.7	0.3	1.0	100.0	2,964
4-5	1.5	1.2	24.1	26.7	71.6	0.7	0.1	0.9	100.0	1,778
6+	1.0	0.6	18.8	20.4	77.8	0.3	0.2	1.3	100.0	1,877
Residence										
Urban	6.8	2.7	47.7	57.2	41.7	0.5	0.1	0.4	100.0	1,076
Rural	1.5	1.4	25.0	28.0	70.0	0.6	0.2	1.2	100.0	7,098
Region										
Banteay Mean Chey	0.7	0.8	35.1	36.6	53.2	7.6	0.2	2.4	100.0	418
Kampong Cham	1.7	1.1	19.7	22.5	72.9	1.3	0.4	2.9	100.0	1,135
Kampong Chhnang	0.3	3.7	12.7	16.6	81.9	0.8	0.0	0.6	100.0	385
Kampong Spueu	3.2	0.8	11.1	15.1	84.1	0.0	0.2	0.6	100.0	478
Kampong Thum	0.6	3.7	11.1	15.4	84.4	0.0	0.0	0.2	100.0	441
Kandal	4.3	2.6	46.1	53.0	45.8	0.0	0.2	1.0	100.0	700
Kaoh Kong	1.2	0.0	29.3	30.6	67.4	0.0	0.0	2.1	100.0	94
Phnom Penh	10.5	1.9	76.5	88.9	11.1	0.0	0.0	0.0	100.0	433
Prey Veang	0.5	0.8	24.1	25.3	74.4	0.0	0.2	0.0	100.0	599
Pousat	1.1	0.2	17.7	19.0	79.4	0.2	0.0	1.3	100.0	276
Svay Rieng	0.8	2.6	19.0	22.4	73.8	0.2	0.0	3.5	100.0	323
Takaev	2.7	2.2	34.6	39.5	59.3	0.0	0.4	0.8	100.0	610
Bat Dambang/ Krong Pailin	3.4	1.6	39.7	44.7	54.9	0.0	0.0	0.4	100.0	633
Kampot/Krong Kaeb/ Krong Preah Sihanouk	1.4	0.6	28.7	30.8	69.2	0.0	0.0	0.0	100.0	520
Preah Vihear/Stueng	1.5	0.3	38.7	40.5	58.6	0.0	0.5	0.5	100.0	369
Traeng/Kracheh	0.8	1.0	12.4	14.2	83.8	0.3	1.3	0.4	100.0	140
Mondol Kiri/Rotanak Kiri	0.4	1.6	9.9	12.0	87.1	0.0	0.2	0.6	100.0	619
Siem Reab/Otdar Mean Chey										
Mother's education										
No education	1.1	1.0	17.2	19.3	78.3	1.0	0.2	1.3	100.0	2,685
Primary	1.5	1.7	27.7	30.9	67.3	0.5	0.3	1.1	100.0	4,379
Secondary and higher	7.9	2.3	55.6	65.8	33.1	0.4	0.1	0.5	100.0	1,110
Specific project areas										
CDCP	3.1	1.7	30.7	35.5	63.8	0.0	0.1	0.5	100.0	4,161
BHSP	1.4	1.8	22.6	25.7	71.7	0.6	0.3	1.7	100.0	3,053
Total	2.2	1.6	28.0	31.8	66.3	0.6	0.2	1.1	100.0	8,175

Note: If the respondent mentioned more than one attendant, only the most qualified attendant is considered in this tabulation.

Urban women are twice (57 percent) as likely to receive assistance from a trained health professional during childbirth as rural women (28 percent). Rural women are more likely to receive assistance during birth from a TBA (70 percent). In most regions, the proportion of births assisted by a trained health professional is low (less than 20 percent). However, 89 percent of births are assisted by a trained health professional in Phnom Penh, and the remaining 11 percent are assisted by a TBA. As expected, mother's education has a positive impact on delivery care. Births to women with primary education (31 percent) and secondary or higher education (66 percent) are more likely to receive delivery assistance from a health professional than births to women with no education (19 percent).

Contact with health professionals during pregnancy increases the likelihood of professional care during delivery. However, Figure 12.3 shows that only 7 percent of women sought care from a TBA during pregnancy, and a relatively higher percentage of women (66 percent) were assisted by a TBA during childbirth. Since almost all women sought assistance during childbirth, it is likely that women who did not seek any ANC during pregnancy (55 percent) also sought assistance from a TBA during childbirth.

Figure 12.3 Source of Antenatal Care and Assistance During Delivery



CDHS 2000

Delivery characteristics

The CDHS 2000 obtained information on a number of other key aspects of deliveries, including the frequency of caesarean sections (C-section) and of low birth weight babies. C-sections are generally performed because the mother has medical problems or experiences complications at the time of delivery. Table 12.9 shows that less than 1 percent of deliveries in the five-year period before the survey were by C-section. C-sections are most likely to occur in Phnom Penh (5 percent) and among women with secondary or higher education (3 percent).

Birth weight is a major determinant of infant and child health and mortality. In the CDHS 2000, for all births during the five-year period preceding the survey, mothers were first asked to subjectively assess the size of their baby and then were asked to report the actual weight in kilograms if the baby had been weighed after delivery. Table 12.9 shows that the majority of babies were not weighed at birth (83 percent). Among those births for which the mother was able to report the baby's weight, 6 percent (1 percent of all births) were classified as low birth weight; i.e., they weighed less than 2.5 kilograms at birth.

Table 12.9 also includes information on the mother's assessment of the baby's size at birth. It is important to remember that this assessment may vary among respondents since it is based on the mother's own perception of what is small, average, or large for a baby and not on a uniform definition. Eighty-four percent of the births were considered average or larger than average. Eleven percent were perceived as smaller than average, and about 3 percent were considered very small.

Table 12.9 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section, and percent distribution by birth weight, and by mother's estimate of baby's size at birth, according to background characteristics, Cambodia 2000

Background characteristic	Delivery by C-section	Birth weight				Total	Size of child at birth				Total	Number
		Not weighed	Less than 2.5 kg	2.5 kg or more	Don't know/missing		Very small	Smaller than average	Average or larger	Don't know/missing		
Mother's age at birth												
<20	1.0	77.9	0.8	19.8	1.5	100.0	1.5	10.3	85.8	2.4	100.0	730
20-34	0.9	82.0	1.1	15.6	1.3	100.0	2.8	10.4	85.1	1.8	100.0	5,791
35-49	0.6	86.9	1.1	10.7	1.3	100.0	4.1	12.8	81.1	2.0	100.0	1,653
Birth order												
1	1.5	72.2	1.6	24.8	1.4	100.0	2.4	12.2	83.4	2.0	100.0	1,555
2-3	1.1	80.0	1.0	17.5	1.5	100.0	3.1	10.0	85.2	1.8	100.0	2,964
4-5	0.4	88.3	0.6	10.1	1.0	100.0	2.2	10.1	86.1	1.6	100.0	1,778
6+	0.4	90.1	1.0	7.5	1.4	100.0	4.0	11.9	82.0	2.1	100.0	1,877
Residence												
Urban	3.2	59.2	1.5	38.6	0.7	100.0	2.0	7.0	90.1	0.9	100.0	1,076
Rural	0.5	86.2	1.0	11.4	1.4	100.0	3.1	11.4	83.4	2.0	100.0	7,098
Region												
Banteay Mean Chey	0.2	86.5	0.7	10.6	2.2	100.0	0.4	10.0	87.4	2.2	100.0	418
Kampong Cham	0.4	77.5	0.6	18.9	2.9	100.0	1.1	9.0	87.2	2.7	100.0	1,135
Kampong Chhnang	0.4	91.5	0.6	7.2	0.8	100.0	4.4	15.8	79.2	0.6	100.0	385
Kampong Spueu	0.6	92.2	0.6	7.0	0.2	100.0	3.1	13.7	77.5	5.8	100.0	478
Kampong Thum	0.6	94.6	1.0	3.9	0.6	100.0	2.3	7.3	90.2	0.2	100.0	441
Kandal	0.7	72.7	2.1	23.9	1.2	100.0	7.1	15.1	76.8	1.0	100.0	700
Kaoh Kong	1.1	75.9	1.7	20.1	2.4	100.0	3.8	7.3	66.9	22.0	100.0	94
Phnom Penh	4.6	18.3	3.9	76.6	1.2	100.0	2.8	3.8	93.4	0.0	100.0	433
Prey Veaeang	0.8	94.6	0.8	4.7	0.0	100.0	0.8	5.7	93.5	0.0	100.0	599
Pousat	0.2	84.2	1.0	13.5	1.3	100.0	2.5	11.5	84.7	1.3	100.0	276
Svay Rieng	0.9	87.6	0.0	6.8	5.6	100.0	0.9	11.5	83.9	3.7	100.0	323
Takaev	1.1	86.7	1.5	11.0	0.8	100.0	1.9	17.3	79.8	1.0	100.0	610
Bat Dambang/ Krong Pailin	0.9	86.4	1.6	11.2	0.8	100.0	2.3	12.7	84.4	0.6	100.0	633
Kampot/Krong Kaeb/ Krong Preah Sihanouk	1.1	85.0	0.2	14.7	0.0	100.0	2.4	8.4	89.2	0.0	100.0	520
Preah Vihear/Stueng Traeng/Kracheh	0.4	90.0	0.6	9.0	0.5	100.0	11.4	10.0	77.8	0.8	100.0	369
Mondol Kiri/Rotanak Kiri Siem Reab/Otdar	0.0	89.4	0.2	10.0	0.4	100.0	2.8	6.1	76.4	14.7	100.0	140
Mean Chey	0.0	94.7	0.6	3.3	1.5	100.0	3.4	12.4	83.2	1.0	100.0	619
Mother's education												
No education	0.3	92.2	0.5	6.3	1.0	100.0	3.3	11.4	82.6	2.7	100.0	2,685
Primary	0.5	83.2	1.2	14.1	1.5	100.0	3.0	11.1	84.3	1.6	100.0	4,379
Secondary and higher	3.4	57.3	1.8	39.5	1.4	100.0	1.8	8.6	88.5	1.2	100.0	1,110
Specific project areas												
CDCP	1.0	79.7	1.4	18.1	0.8	100.0	3.6	11.0	84.0	1.4	100.0	4,161
BHSP	0.7	85.5	0.8	11.8	1.9	100.0	1.6	11.1	85.6	1.7	100.0	3,053
Total	0.8	82.6	1.1	15.0	1.3	100.0	2.9	10.9	84.3	1.9	100.0	8,175

12.3 POSTNATAL CARE AND PRACTICES

Postnatal care

A large proportion of maternal and neonatal deaths occurs during the first 48 hours after delivery. Safe motherhood programs have recently increased their emphasis on the importance of postnatal care, recommending that all women receive a health checkup within two days of delivery. To assess the extent of postnatal care utilization, respondents who did not deliver in a health facility

were asked whether they had received a health check after the delivery of their last birth in the five years preceding the survey. Table 12.10 shows the timing of postnatal care for women who had a birth that occurred outside of a health facility only since it is assumed that postnatal care is part of routine care for institutional deliveries.

Forty-six percent of women received no postnatal care. Forty-two percent of mothers received postnatal care within the crucial first two days of delivery (including those who delivered in a health facility), 11 percent received postnatal care 3-7 days after delivery and after a week of delivery, less than 1 percent of women received any postnatal care. There are no marked variations

Table 12.10 Postnatal care by background characteristics

Percent distribution of women who had a live birth in the five years preceding the survey by timing of postnatal care, according to background characteristics, Cambodia 2000

Background characteristic	Delivered in health facility	Timing of first postnatal checkup for mothers who delivered outside a health facility				Did not receive postnatal care	Total	Number
		Within 2 days of birth	3-7 days after birth	8+ days after birth	Don't know/missing			
Mother's age at birth								
<20	12.9	26.3	12.2	0.4	0.0	48.2	100.0	465
20-34	11.8	31.2	10.8	1.0	0.1	45.0	100.0	3,921
35-49	6.8	32.0	12.5	1.1	0.0	47.6	100.0	1,329
Birth order								
1	19.9	28.7	10.3	1.0	0.0	40.1	100.0	975
2-3	13.5	31.1	9.8	0.8	0.3	44.5	100.0	2,053
4-5	7.4	31.7	12.5	1.0	0.0	47.5	100.0	1,296
6+	3.5	31.8	13.2	1.1	0.0	50.4	100.0	1,391
Residence								
Urban	36.8	26.1	8.3	0.7	0.0	28.1	100.0	779
Rural	6.6	31.8	11.8	1.0	0.1	48.7	100.0	4,935
Region								
Banteay Mean Chey	6.7	19.2	12.4	1.3	0.3	60.0	100.0	292
Kampong Cham	5.5	63.5	13.7	1.2	0.3	15.8	100.0	785
Kampong Chhnang	5.6	10.5	3.8	1.2	0.0	78.7	100.0	245
Kampong Spueu	5.5	10.0	11.9	0.5	0.0	72.0	100.0	342
Kampong Thum	3.9	37.9	17.5	2.2	0.0	38.4	100.0	306
Kandal	14.0	16.9	5.8	0.3	0.0	62.9	100.0	496
Kaoh Kong	7.5	25.4	15.5	3.6	0.3	47.7	100.0	67
Phnom Penh	72.7	7.9	7.6	0.4	0.0	11.4	100.0	336
Prey Veaeng	2.8	0.7	3.0	0.3	0.0	93.2	100.0	450
Pousat	6.7	36.7	8.8	1.1	0.0	46.7	100.0	186
Svay Rieng	3.3	6.9	8.3	0.3	0.0	81.2	100.0	229
Takaev	8.3	37.2	8.5	0.5	0.0	45.4	100.0	434
Bat Dambang/Krong Pailin	11.6	60.4	15.6	0.9	0.0	11.7	100.0	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	11.0	32.3	9.7	1.7	0.3	45.1	100.0	384
Preah Vihear/Stueng Traeng/ Kracheh	5.7	21.7	22.1	1.0	0.0	49.3	100.0	249
Mondol Kiri/Rotanak Kiri	7.1	16.3	13.0	1.3	0.4	62.0	100.0	87
Siem Reab/Otdar Mean Chey	2.2	53.7	19.4	0.9	0.3	23.6	100.0	409
Education								
No education	3.3	29.5	13.7	1.0	0.2	52.2	100.0	1,827
Primary	9.0	32.4	10.8	0.9	0.1	46.8	100.0	3,069
Secondary and higher	34.0	28.9	8.0	0.8	0.0	28.3	100.0	818
Total	10.8	31.0	11.3	0.9	0.1	45.9	100.0	5,714

Note: For women with two or more live births in the five-year period, data refer to the most recent birth. Mothers who delivered in a health facility are assumed to have received a postnatal checkup.

in the utilization of postnatal care services within the first two days of birth, by mother's age, birth order, and mother's education. Rural women are slightly more likely to receive postnatal care than urban women for the first eight days of delivery. However, urban women are five times more likely to receive postnatal care than rural women if they delivered in a health facility.

Table 12.11 presents information on the type of postnatal care providers for mothers who delivered outside of a health facility by background characteristics. Tables 12.10 and 12.11 show that about 50 percent of mothers did not receive postnatal care. One-third of the women received postnatal care from traditional birth attendants, about one in seven women received postnatal care from a midwife, and only 1 percent received care from a doctor or nurse. Health professionals

Table 12.11 Postnatal care providers

Percent distribution of women who had a live birth outside of a health facility in the five years preceding the survey by type of postnatal care provider, according to background characteristics, Cambodia 2000

Background characteristic	Provider of postnatal care ¹					Total	Number
	Doctor/nurse	Midwife	Traditional birth attendant	Other	No postnatal care		
Mother's age at birth							
<20	0.5	12.7	30.9	0.6	55.4	100.0	405
20-34	1.0	14.9	32.9	0.1	51.1	100.0	3,456
35-49	1.2	11.5	36.0	0.1	51.0	100.0	1,239
Birth order							
1	1.2	15.6	33.1	0.0	50.1	100.0	781
2-3	1.2	16.2	30.8	0.3	51.5	100.0	1,776
4-5	1.0	12.6	34.9	0.1	51.3	100.0	1,200
6+	0.7	11.0	36.0	0.1	52.2	100.0	1,343
Residence							
Urban	2.2	24.9	28.4	0.0	44.5	100.0	492
Rural	0.9	12.7	34.0	0.2	52.2	100.0	4,608
Region							
Banteay Mean Chey	0.7	13.9	21.1	0.0	64.4	100.0	272
Kampong Cham	0.3	16.4	65.6	0.7	16.7	100.0	742
Kampong Chhnang	0.5	2.2	13.6	0.3	83.5	100.0	231
Kampong Spueu	0.3	5.7	17.7	0.0	76.2	100.0	323
Kampong Thum	4.1	6.6	49.3	0.0	40.0	100.0	294
Kandal	0.4	15.4	11.1	0.0	73.2	100.0	427
Kaoh Kong	0.3	16.4	31.5	0.0	51.5	100.0	62
Phnom Penh	1.7	40.2	16.3	0.0	41.8	100.0	92
Prey Veang	0.3	2.4	1.4	0.0	95.9	100.0	437
Pousat	0.3	10.7	38.7	0.4	50.0	100.0	174
Svay Rieng	0.4	5.5	10.1	0.0	84.0	100.0	222
Takaev	2.0	22.3	26.2	0.0	49.5	100.0	397
Bat Dambang/Krong Pailin	1.3	37.4	47.8	0.3	13.2	100.0	370
Kampot/Krong Kaeb/ Krong Preah Sihanouk	1.0	18.9	29.4	0.0	50.7	100.0	342
Preah Vihear/Stueng Traeng/ Kracheh	0.6	11.3	35.7	0.0	52.4	100.0	234
Mondol Kiri/Rotanak Kiri	0.0	4.2	29.0	0.0	66.8	100.0	81
Siem Reab/Otdar Mean Chey	2.5	7.4	66.0	0.0	24.1	100.0	400
Education							
No education	0.5	8.2	37.2	0.0	54.1	100.0	1,766
Primary	1.2	13.5	33.6	0.2	51.4	100.0	2,794
Secondary and higher	1.8	34.4	20.6	0.3	42.8	100.0	540
Total	1.0	13.9	33.5	0.1	51.4	100.0	5,100

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.
¹ If the respondent mentioned more than one provider, only the most qualified is considered in this tabulation.

(midwife, doctor, or nurse) are more likely to provide postnatal care to mothers in urban rather than rural areas, and rural women are more likely to receive care from TBAs. Similarly, mothers with secondary and higher education are more likely to receive postnatal care from a trained health professional; however, women with no education are more likely to receive care from TBAs.

Postnatal roasting

Cambodian women practice roasting, locally known as *ang pleung*, a postpartum practice based on Khmer concepts of balancing the body between hot and cold after a traumatic experience such as childbirth. A similar practice is carried out after abortion. It is traditional for a woman to be wrapped from head to toe in warm clothes immediately postpartum (Goodyear, 1996). She spends a minimum of three days (up to a month) lying beside a fire or on a mat bed over coals where she “roasts” to revive the strength and replace the heat that is perceived to be lost during childbirth. This practice is also performed to “cook” the body’s “strings,” a term that is used to refer to blood vessels, ligaments, tendons, and nerves, which are believed to be stretched and fatigued by labor and delivery and thus become “cold.” It is also believed that roasting prevents joint pains, numbness, any form of “relapse” and improves the skin tone and overall health and well-being of the woman through her life. During this time, the woman is roasting the baby too (usually in the same room). The infant is fed water or sugared water and no breast milk (see Chapter 13 for the importance of feeding newborns colostrum, feeding newborns within the first hour of birth, and exclusive breastfeeding).

Table 12.12 shows the percentage of women and number of days that women practiced roasting. Eighty-eight percent of women practiced roasting. A small number of women (1 percent) practiced roasting for only one day or less than 24 hours. However, two-thirds of women practiced roasting for 2-3 days. About one in eight women or fewer continued the practice of roasting beyond four days. Roasting is practiced more in rural areas (91 percent) than urban areas (67 percent). Twenty-eight percent of women in Phnom Penh and an overwhelming number of women in other regions practiced postpartum roasting (84 percent in Kandal to 98 percent in Siem Reab/Otdar Mean Chey).

Women with no education (94 percent) practiced roasting more than women with primary education (90 percent), and about two-thirds of women with secondary or higher education also practiced postpartum roasting. There was not much difference in terms of number of days of roasting by mother’s education. Mothers who received assistance from a trained health professional during childbirth were less likely to practice postpartum roasting (69 percent), compared with women who received assistance from a TBA (98 percent) or other source (95 percent).

Table 12.12 Postnatal roasting

Percentage of live births in the five years preceding the survey for which mothers practiced roasting after birth of the child, and percent distribution of birth for which mothers practiced roasting by number of days that they practiced roasting, according to background characteristics, Cambodia 2000

Background characteristic	Per-centage who practiced roasting	Number of births in 5 years preceding the survey	Number of days practiced roasting					Total	Number of births for which mothers practiced roasting
			One day/ less than 24 hours	2-3 days	4-6 days	7+ days	Missing		
Residence									
Urban	66.9	1,076	2.2	68.1	11.9	13.9	3.9	100.0	720
Rural	91.2	7,098	0.9	65.3	13.0	14.9	5.9	100.0	6,472
Region									
Banteay Mean Chey	86.8	418	0.8	42.4	17.0	36.8	3.0	100.0	363
Kampong Cham	89.4	1,135	1.0	86.1	8.5	4.2	0.2	100.0	1,015
Kampong Chhnang	93.8	385	0.3	79.7	10.3	9.1	0.6	100.0	362
Kampong Spueu	95.1	478	1.2	22.1	9.0	35.5	32.2	100.0	455
Kampong Thum	97.3	441	0.4	66.3	17.8	7.9	7.5	100.0	430
Kandal	84.0	700	2.0	81.0	3.9	13.2	0.0	100.0	588
Kaoh Kong	85.2	94	1.1	56.5	3.7	36.5	2.2	100.0	80
Phnom Penh	28.0	433	3.2	76.9	5.4	11.2	3.2	100.0	121
Prey Veang	95.4	599	0.8	93.4	4.5	1.3	0.0	100.0	571
Pousat	93.5	276	1.3	80.7	13.7	4.3	0.0	100.0	258
Svay Rieng	91.3	323	1.3	85.4	8.1	4.7	0.5	100.0	295
Takaev	88.6	610	1.1	52.3	17.7	27.3	1.7	100.0	541
Bat Dambang/ Krong Pailin	91.0	633	1.4	70.7	13.4	11.9	2.7	100.0	576
Kampot/Krong Kaeb/ Krong Preah Sihanouk	87.3	520	1.1	65.3	15.6	16.6	1.4	100.0	454
Preah Vihear/Stueng Traeng/Kracheh	94.6	369	0.3	57.1	17.8	12.5	12.3	100.0	349
Mondol Kiri/ Rotanak Kiri	93.7	140	0.6	21.6	28.4	44.6	4.8	100.0	132
Siem Reab/Otdar Mean Chey	97.5	619	1.2	31.6	27.2	18.9	21.1	100.0	603
Education									
No education	94.3	2,685	1.2	60.8	13.4	15.3	9.4	100.0	2,532
Primary	89.9	4,379	0.9	68.8	12.7	13.8	3.8	100.0	3,937
Secondary and higher	65.1	1,110	1.4	64.4	12.2	19.0	2.9	100.0	723
Assistance at delivery									
Medically trained personnel	68.6	2,602	1.5	71.0	11.1	13.4	3.1	100.0	1,786
Traditional birth attendant	98.3	5,418	0.9	63.8	13.5	15.1	6.6	100.0	5,326
Other	95.3	51	(4.9)	(49.2)	(12.4)	(33.5)	(0.0)	100.0	49
No one	*	17	*	*	*	*	*	*	17
Total	88.0	8,175	1.1	65.6	12.9	14.8	5.7	100.0	7,192

Note: Total includes 87 births for whom information on assistance at delivery is not available. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

12.4 USE OF TOBACCO AND BETEL NUTS

Tobacco use is widely regarded as the most preventable cause of death and disease among adults. In general, chronic exposure to nicotine may cause an acceleration of coronary artery disease, peptic ulcer disease, reproductive disturbances, esophageal reflux, and hypertension. Tobacco and its various components have been associated with an increased risk of cancer of various body organs. Smoking is the most important contributor to the development of chronic bronchitis and chronic obstructive pulmonary disease that are characterized by chronic cough, phlegm, and airflow obstruction. Smoking is well established as the cause of the majority of cases

of pulmonary emphysema. Smoking among women also creates particular risks for their offspring. Pregnancy outcomes, including low birth weight and intrauterine growth retardation are more frequent among women who smoke than among those who do not smoke.

Table 12.13 shows the percentage of women who use tobacco for smoking. Overall 5 percent of women smoke tobacco. Older women (more than 40 years of age) are more likely to smoke than younger women. Women living in rural areas are twice (6 percent) as likely to smoke tobacco as women living in urban areas (3 percent). There are significant regional differences in

Table 12.13 Use of smoking tobacco

Percentage of women who use tobacco for smoking and percent distribution of cigarette smokers by number of cigarettes in preceding 24 hours, according to background characteristics and maternity status, Cambodia 2000

Background characteristic	Does not use tobacco	Use tobacco			Number of women	Number of cigarettes			Don't know/missing	Total	Number
		Cigarettes	Pipe	Other tobacco		1-2	3-5	6+			
Mother's age at birth											
15-19	98.9	0.7	0.1	0.3	3,618	27.3	52.1	20.6	0.0	100.0	24
20-24	97.4	1.9	0.2	0.6	1,982	40.5	36.0	22.4	1.2	100.0	37
25-29	95.7	3.0	0.2	1.0	2,118	35.0	35.9	26.2	2.8	100.0	65
30-34	94.7	3.8	0.3	1.3	2,195	21.7	40.9	37.4	0.0	100.0	83
35-39	92.0	6.6	0.2	1.5	2,168	20.5	48.9	29.7	1.0	100.0	142
40-44	90.9	7.2	0.2	1.7	1,847	26.1	36.1	33.6	4.2	100.0	133
45-49	90.0	8.3	0.3	1.6	1,425	23.5	35.3	40.1	1.1	100.0	118
Residence											
Urban	97.2	2.0	0.0	0.8	2,692	25.6	36.4	35.4	2.6	100.0	53
Rural	94.4	4.3	0.2	1.1	12,659	25.6	40.6	32.2	1.7	100.0	549
Region											
Banteay Mean Chey	98.0	2.0	0.0	0.0	672	*	*	*	*	100.0	14
Kampong Cham	92.6	6.1	0.1	1.3	1,961	31.9	30.1	36.0	2.0	100.0	119
Kampong Chhnang	89.5	10.4	0.0	0.2	583	39.3	38.8	21.9	0.0	100.0	61
Kampong Spueu	95.0	4.7	0.0	0.4	725	(26.9)	(51.2)	(22.0)	(0.0)	100.0	34
Kampong Thum	97.4	1.3	0.0	1.3	777	*	*	*	*	100.0	10
Kandal	96.9	3.0	0.0	0.1	1,469	(33.3)	(44.5)	(22.1)	(0.0)	100.0	44
Kaoh Kong	94.3	5.6	0.0	0.1	147	(19.6)	(40.0)	(40.4)	(0.0)	100.0	8
Phnom Penh	99.5	0.5	0.0	0.0	1,657	*	*	*	*	100.0	8
Prey Veaeang	98.5	1.4	0.0	0.1	1,272	*	*	*	*	100.0	18
Pousat	91.8	7.4	0.0	0.8	433	32.2	40.2	24.8	2.8	100.0	32
Svay Rieng	98.9	0.4	0.0	0.7	688	*	*	*	*	100.0	3
Takaev	98.3	1.7	0.0	0.0	1,107	*	*	*	*	100.0	19
Bat Dambang/ Krong Pailin	92.2	7.8	0.0	0.0	1,084	15.1	43.1	37.3	4.5	100.0	84
Kampot/Krong Kaeb/ Krong Preah Sihanouk	96.3	3.4	0.0	0.3	999	(16.4)	(35.0)	(48.6)	(0.0)	100.0	34
Preah Vihear/Stueng	79.4	7.7	0.0	12.9	582	30.2	46.0	21.0	2.7	100.0	45
Traeng/Kracheh	79.4	7.7	0.0	12.9	582	30.2	46.0	21.0	2.7	100.0	45
Mondol Kiri/ Rotanak Kiri	46.8	22.6	18.1	15.6	161	11.1	47.8	41.1	0.0	100.0	36
Siem Reab/Otdar Mean Chey	96.4	3.1	0.0	0.5	1,036	(13.1)	(44.1)	(42.8)	(0.0)	100.0	32
Mother's education											
No education	90.4	7.1	0.7	2.0	4,338	28.4	43.0	26.7	1.9	100.0	306
Primary	95.8	3.4	0.0	0.9	8,376	22.6	38.2	37.6	1.6	100.0	282
Secondary and higher	99.4	0.5	0.0	0.0	2,637	*	*	*	*	100.0	14
Maternity status											
Pregnant	91.6	5.6	0.3	2.6	978	21.5	48.1	28.4	2.0	100.0	54
Breastfeeding	92.2	5.8	0.4	1.7	2,817	25.3	46.9	25.6	2.2	100.0	164
Neither	95.8	3.3	0.1	0.7	11,556	26.3	36.2	36.0	1.5	100.0	384
Total	94.9	3.9	0.2	1.0	15,351	25.6	40.2	32.5	1.7	100.0	602

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

use of tobacco smoking among women. In Phnom Penh, almost 100 percent of women do not smoke tobacco. On the other hand, in Mondol Kiri/Rotanak Kiri, one out of two women smokes tobacco, with the majority smoking cigarettes (23 percent), followed by pipes (18 percent), and other tobacco products (16 percent).

Women with no education are more likely to smoke tobacco (10 percent), whereas there is negligible smoking in women who have secondary education or higher. During pregnancy and lactation, 92 percent of women do not use tobacco. However, among women who smoke during pregnancy and lactation, 47 percent or more smoke 3-5 cigarettes a day and about a quarter or more smoke 6 or more cigarettes a day.

Tobacco in the form of shredded or pressed bricks and cakes called plugs, or rope-like strands called twists are used for chewing. Chewing tobacco contains higher levels of nicotine, thus making it more addictive than smoking cigarettes. Chewing of tobacco is associated with gingival recession, gingival infection, leukoplakia, oral cancers, and cancers of the upper gastrointestinal tract.

Betel nut (Areca) is an astringent seed of an East Indian palm, the betel palm, used for chewing with betel leaves and lime. It has been shown that betel nut is carcinogenic. It seems to be causative in the high incidence of cancer of the upper digestive tract and oral submucous fibrosis (marked by stiffening of the oral mucosa and development of fibrous bands resulting in a restricted mouth opening).

Table 12.14 shows the percentage of women who chew tobacco and betel nuts by background characteristics and maternity status. About 6 percent of women chew tobacco and 8 percent chew betel nuts. As for smoking tobacco, chewing of both tobacco and betel nuts is higher among older women. About a quarter of women in the age group 45-49 chew betel nuts and one-fifth of women chew tobacco. In general, women with no education chew more tobacco and betel nuts than women with primary or higher education. There are also significant regional differences: women in Phnom Penh are 17 times less likely to chew tobacco and betel nuts than women in Svay Rieng and Kampong Thum.

Table 12.14 Chew tobacco and/or betel nuts

Percentage of women who chew tobacco and percentage of women who chew betel nuts according to background characteristics and maternity status, Cambodia 2000

Background characteristic	Chew tobacco	Chew betel nuts	Number of women
Mother's age at birth			
15-19	0.1	1.0	3,618
20-24	1.2	2.1	1,982
25-29	2.6	4.3	2,118
30-34	4.7	6.6	2,195
35-39	9.6	11.7	2,168
40-44	11.3	15.1	1,847
45-49	19.3	25.3	1,425
Residence			
Urban	2.0	3.1	2,692
Rural	6.5	8.9	12,659
Region			
Banteay Mean Chey	2.2	1.1	672
Kampong Cham	10.3	12.3	1,961
Kampong Chhnang	8.0	16.2	583
Kampong Spueu	3.4	5.5	725
Kampong Thum	6.4	16.9	777
Kandal	7.5	7.3	1,469
Kaoh Kong	1.9	12.2	147
Phnom Penh	1.0	1.2	1,657
Prey Veaeng	4.7	9.6	1,272
Pousat	12.4	15.2	433
Svay Rieng	17.1	14.0	688
Takaev	2.6	3.4	1,107
Bat Dambang/ Krong Pailin	2.2	5.5	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	0.5	1.8	999
Preah Vihear/Stueng			
Traeng Kracheh	2.1	12.0	582
Mondol Kiri/Rotanak Kiri	1.7	5.7	161
Siem Reab/Otdar Mean Chey	10.3	6.5	1,036
Mother's education			
No education	9.4	11.9	4,338
Primary	5.5	7.8	8,376
Secondary and higher	0.5	1.3	2,637
Maternity status			
Pregnant	4.1	7.8	978
Breastfeeding	5.4	8.0	2,817
Neither	5.9	7.8	11,556
Total	5.7	7.9	15,351

12.5 BIRTH REGISTRATION

UNICEF/World Summit for Children (WSC) recommends birth registration as an indicator to monitor children's rights, i.e., proportion of children whose birth was reported registered.

Table 12.15 shows the percentage of births in the five years preceding the survey that were registered with the civil authority and the percentage for which there is a birth certificate, according to the background characteristics. Twenty-two percent of births were registered with the civil authority, and 21 percent of the households reported having the corresponding birth certificate. Women age 35-49 registered their children more often than younger women (less than 20 years). As expected, urban areas had higher birth registration (30 percent) than rural areas (21 percent). Svay Rieng had the highest percentage of births registered (55 percent) followed by Bat Dambang/Krong Pailin (50 percent). Surprisingly, only about one-third of the births were registered in Phnom Penh. Women with secondary education and higher were twice (34 percent) as likely to register the birth of their child with the civil authority than those with no education (16 percent).

12.6 VACCINATION COVERAGE

Universal immunization of children against six vaccine-preventable diseases (tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial in reducing infant and child mortality. Data on differences in vaccination coverage among subgroups of the population are of great assistance for program planning. Additionally, information on immunization coverage is important for the monitoring and evaluation of the Expanded Programs on Immunization (EPI).

The survey collected information on vaccination coverage for all living children born in the five years preceding the survey. According to the guidelines developed by the World Health Organization, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses each of the DPT and polio vaccines, and a measles vaccination by the age of 12 months. BCG should be given at birth or at first clinical contact; DPT and polio require three vaccinations at approximately 4, 8, and 12 weeks of age. In addition, WHO

Table 12.15 Birth registration

Percentage of live births in the five years preceding the survey that were registered with the civil authority and percentage of births for which there is a birth certificate, according to background characteristics, Cambodia 2000

Background characteristic	Percentage of births that were registered	Percentage of births for which there is a birth certificate	Number of births
Mother's age at birth			
<20	18.5	17.5	730
20-34	22.7	21.6	5,791
35-49	21.0	20.0	1,653
Birth order			
1	23.2	22.1	1,555
2-3	24.3	22.7	2,964
4-5	20.0	19.3	1,778
6+	19.3	18.5	1,877
Residence			
Urban	29.9	29.3	1,076
Rural	20.8	19.6	7,098
Region			
Banteay Mean Chey	8.2	7.8	418
Kampong Cham	31.0	29.8	1,135
Kampong Chhnang	3.3	3.1	385
Kampong Spueu	0.6	0.6	478
Kampong Thum	5.6	4.8	441
Kandal	17.4	16.9	700
Kaoh Kong	6.0	5.8	94
Phnom Penh	34.6	32.4	433
Prey Veaeang	8.7	5.9	599
Pousat	11.7	11.1	276
Svay Rieng	54.5	54.2	323
Takaev	40.0	39.3	610
Bat Dambang/ Krong Pailin	50.4	48.9	633
Kampot/Krong Kaeb/ Krong Preah Sihanouk	16.4	14.4	520
Preah Vihear/Stueng Traeng/Kracheh	14.8	13.5	369
Mondol Kiri/ Rotanak Kiri	13.4	11.5	140
Siem Reab/Otdar Mean Chey	18.1	17.0	619
Mother's education			
No education	16.4	15.7	2,685
Primary	22.5	21.1	4,379
Secondary and higher	33.7	32.6	1,110
Total	22.0	20.9	8,175

recommends a polio zero dose (polio vaccine given at birth) for childhood polio vaccination. Measles should be given at or soon after reaching 9 months of age.

As recommended by WHO and UNICEF, information on vaccination coverage was collected in two ways: from vaccination cards shown to the interviewer and from mothers' verbal reports. If the cards were available, the interviewer copied the vaccination dates directly onto the questionnaire. The respondent was asked to recall the vaccines given to her child when there was no vaccination card for the child or if a vaccine had not been recorded on the card as being given. Table 12.16 and Figure 12.4 show the percentage of children age 12-23 months who have received the various vaccinations by source of information, that is, from vaccination card or mother's report. Age 12-23 months is the youngest cohort of children who have reached the age by which they should be fully vaccinated. Forty percent of children 12-23 months are fully vaccinated, and 31 percent of children are fully vaccinated by 12 months of age. This is similar to the findings of the NHS 1998 in which about one-third of children were fully immunized (34 percent).

About three quarters (71 percent) of children received the BCG vaccination, and 55 percent have been vaccinated against measles. The coverage for the first dose of DPT is higher (68 percent), compared with the third dose (49 percent): dropout rate is as high as 28 percent between the first and the third dose of DPT. Even though DPT and polio vaccines are often administered at the same time, polio coverage is slightly higher than DPT coverage. This is primarily due to the success of the national immunization day campaigns during which polio vaccines are administered. About 30 percent of children received polio vaccination at birth, 75 percent of children age 12-23 months received the first dose of polio, 64 percent received the second dose, and 52 percent received the third dose. Nevertheless, the dropout between the first and subsequent doses of polio is also marked—a decline of about a third between the first and third doses.

Table 12.16 Vaccinations by source of information

Percentage of children 12-23 months who had 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, Cambodia 2000

Source of information	Percentage of children who received:											
	BCG	DPT			Polio ¹			Measles	All ²	None	Number	
		DPT1	DPT2	DPT3	Polio0	Polio1	Polio2					Polio3
Vaccinated at any time before the survey												
Vaccination card	45.9	45.6	40.0	35.8	25.3	45.6	40.1	35.8	36.4	31.6	0.0	596
Mother's report	25.5	22.4	18.2	12.7	4.5	29.1	24.0	15.6	18.9	8.3	21.7	657
Either source	71.4	68.0	58.2	48.5	29.8	74.7	64.1	51.5	55.4	39.9	21.7	1,253
Vaccinated by 12 months of age³	66.1	63.4	53.1	42.7	28.6	69.1	58.6	45.3	41.4	31.3	29.0	1,253

¹ Polio 0 is the polio vaccination given at birth.

² Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).

³ For children whose information was based on the mother's report, the proportion of vaccinations given in the first year of life was assumed to be the same as for children with a written record of vaccination.

Figure 12.4 Vaccination Coverage among Children Age 12-23 Months

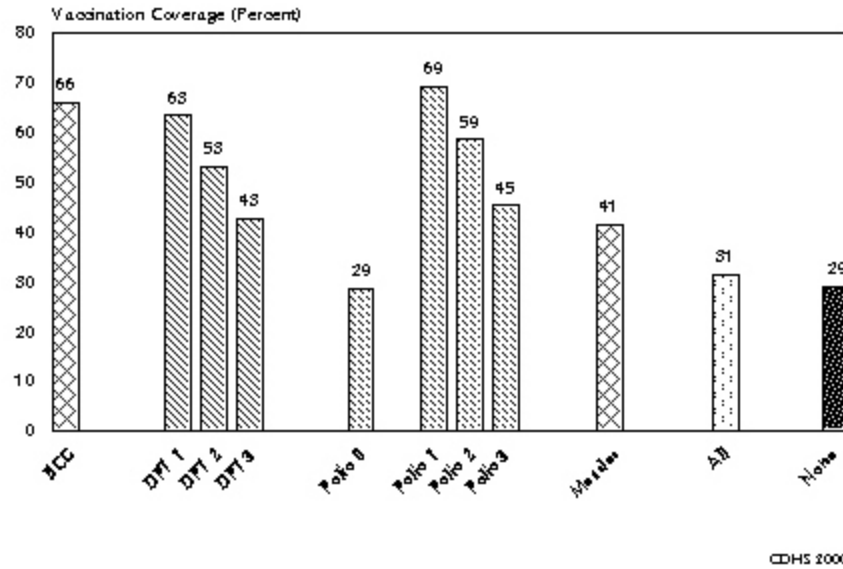


Table 12.17 shows the vaccination coverage among children age 12-23 months, according to information from the vaccination card or mother’s report, by background characteristics. This information may give some indication of the success of the immunization program in reaching out to all population subgroups. There are no significant differences in vaccination coverage between males and females. However, there are small differences in vaccination coverage between urban and rural areas: more children in urban areas (46 percent) are fully immunized, compared with children in rural areas (39 percent). There are substantial differences in the coverage between regions. The percentage of children fully immunized ranges from a low of 12 percent in Kaoh Kong to 63 percent in Bat Dambang/Krong Pailin. The percentage of children fully immunized increases with mother’s educational level. Children of mothers with secondary or higher education are twice (59 percent) as likely to be fully immunized as children whose mothers have no education (29 percent).

Table 12.17 also shows that a vaccination card was seen for 48 percent of children age 12-23 months. Cards were more likely to have been shown for children living in urban areas, children in Phnom Penh, and children of mothers with at least some secondary education.

Table 12.17 Vaccinations by background characteristics

Among children age 12-23 months, the percentage who had received specific vaccines by the time of the survey (according to vaccination card or the mother's report), and the percentage with a vaccination card, by background characteristics, Cambodia 2000

Background characteristic	Percentage of children who had received:											Percentage with a vaccination card	Number
	DPT				Polio ¹				Measles	All ²	None		
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3					
Child's sex													
Male	71.2	68.0	58.5	50.0	29.3	74.3	64.2	52.2	56.9	42.6	22.3	46.5	632
Female	71.5	68.1	57.8	47.0	30.3	75.0	63.9	50.7	53.8	37.2	21.0	48.6	621
Residence													
Urban	75.4	72.8	64.8	53.5	36.8	76.9	68.0	54.9	61.0	46.3	19.8	48.9	156
Rural	70.8	67.3	57.2	47.8	28.8	74.4	63.5	51.0	54.6	39.0	21.9	47.3	1,096
Region													
Banteay Mean Chey	70.2	64.0	52.7	36.4	27.6	68.9	55.2	37.6	58.8	28.8	24.9	39.9	72
Kampong Cham	66.4	65.0	55.6	40.8	34.0	74.4	65.0	44.4	44.8	28.3	24.2	48.4	177
Kampong Chhnang	88.0	75.3	68.0	63.5	34.6	92.5	84.7	73.4	65.0	53.2	4.0	57.6	54
Kampong Spueu	73.4	71.0	58.3	53.5	19.1	81.4	67.3	58.2	58.2	47.8	16.3	44.6	80
Kampong Thum	71.4	66.8	48.9	33.4	33.4	67.9	56.0	41.6	62.0	33.4	21.3	44.0	71
Kandal	91.4	88.6	80.1	67.9	49.5	92.8	87.2	75.5	75.5	62.2	5.8	75.3	116
Kaoh Kong	38.8	36.4	18.2	12.3	13.4	49.1	30.5	24.1	26.6	11.5	48.1	24.6	14
Phnom Penh	(87.0)	(80.9)	(80.9)	(70.4)	(64.2)	(89.0)	(86.9)	(76.4)	(74.1)	(61.8)	(6.9)	(84.6)	65
Prey Veang	54.8	48.9	38.2	33.5	13.4	53.3	39.7	32.0	38.0	26.0	40.7	44.2	101
Pousat	72.8	64.8	52.1	46.0	16.0	76.3	68.4	53.8	48.4	35.5	22.6	40.2	43
Svay Rieng	56.8	50.9	34.6	30.2	25.2	52.3	34.6	31.6	31.7	22.7	40.2	32.7	51
Takaev	92.6	90.1	85.2	74.1	44.6	91.4	84.0	67.9	74.1	55.7	4.9	47.1	93
Bat Dambang/ Krong Pailin	80.8	79.3	74.9	67.6	22.4	83.8	79.4	67.6	68.8	62.9	13.3	41.8	81
Kampot/Krong Kaeb/ Krong Preah Sihanouk	49.4	51.1	43.1	28.7	13.2	61.6	47.1	33.9	41.1	22.1	32.4	18.1	70
Preah Vihear/Stueng	65.7	59.8	37.2	36.2	14.1	69.4	45.9	34.9	43.1	26.9	27.3	42.0	48
Traeng/Kracheh													
Mondol Kiri/ Rotanak Kiri	45.0	44.5	26.2	18.0	14.5	47.4	30.3	17.9	38.8	14.1	47.5	32.4	19
Siem Reab/Otdar													
Mean Chey	60.8	63.1	55.9	49.8	23.1	68.7	57.7	50.4	51.0	38.3	31.3	43.3	99
Mother's education													
No education	59.9	55.0	46.5	36.9	19.3	65.1	54.3	41.1	45.6	29.1	31.5	33.6	404
Primary	74.2	71.2	59.7	50.2	31.1	76.5	65.3	53.5	57.1	41.4	19.1	50.7	675
Secondary and higher	86.9	86.0	79.3	68.7	49.0	89.8	81.8	67.7	71.1	58.8	8.9	67.7	174
Specific project areas													
CDCP	73.9	71.7	61.9	52.7	30.6	77.7	68.4	57.2	60.6	45.9	18.7	50.8	628
BHSP	70.5	66.2	56.8	47.2	30.8	73.0	62.3	48.3	50.0	35.4	23.4	46.6	475
Total	71.4	68.0	58.2	48.5	29.8	74.7	64.1	51.5	55.4	39.9	21.7	47.5	1,253

¹ Polio 0 is the polio vaccination given at birth.

² Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).

Trends in vaccination coverage

One way of measuring trends in vaccination coverage is to compare coverage among children of different ages. Table 12.18 shows the percentage of children who have received vaccinations during the first year of life according to their current age. This type of data can provide evidence of any trends in vaccination coverage over the past five years.

Table 12.18 Vaccinations in first year of life

Among children age 12-59 months, the percentage who had received specific vaccines in the first year of life, and the percentage with a vaccination card, by current age of the child, Cambodia 2000

Current age of child	Percentage of children vaccinated at 0-11 months ¹										Percentage with a vaccination card		
	BCG	DPT			Polio ²				Measles	All ³	No vaccinations	Number	
		DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3					
12-23 months	66.1	63.4	53.1	42.7	28.6	69.1	58.6	45.3	41.4	31.3	29.0	47.5	1,253
24-35 months	57.6	51.1	42.9	34.2	24.4	57.8	50.5	37.5	28.8	21.6	39.6	33.0	1,379
36-47 months	55.7	51.2	44.6	35.6	22.3	60.1	53.4	39.7	31.9	26.3	42.3	28.6	1,541
48-59 months	54.7	50.8	41.2	34.2	17.6	59.3	51.3	38.5	28.7	22.7	44.1	22.7	1,553
Total	58.8	54.5	45.8	37.0	23.0	62.2	54.2	40.8	33.3	25.7	37.9	32.2	5,727

¹ Information was obtained from the vaccination card or, if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given in the first year of life was assumed to be the same as for children with a written record of vaccination.

² Polio 0 is the polio vaccination given at birth.

³ Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).

There is change over time in vaccination coverage for children vaccinated at 0-11 months. Thirty-one percent of children were fully vaccinated in 1998-1999 compared with 23 percent in 1996-1997. However, there is no clear pattern of vaccination coverage over the past five years. Furthermore, it is difficult to say whether the changes in vaccination coverage are truly a result of increase in vaccination or better reporting (increase in percentage of children with vaccination cards). For example, the percentage of children with vaccination cards increased from 23 percent in 1996-1997 to 48 percent in 1998-1999.

The percentage of children who have received no vaccination at all has declined over the past five years from 44 percent among children age 48-59 months at the time of the survey to 29 percent among children age 12-23 months.

12.7 ACUTE RESPIRATORY INFECTION AND FEVER

Acute respiratory infection (ARI) is a leading cause of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the CDHS 2000, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective—they are based on mother's perception of illness with no validation from medical personnel—and that the prevalence of ARI is subject to seasonality. The CDHS 2000 also asks questions about fever, which is a primary manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and mortality.

Table 12.19 shows the percent distribution of children under five with fever and ARI during the two weeks preceding the survey according to selected background characteristics. Twenty percent of children under five years of age showed symptoms of ARI at some time in the two weeks preceding the survey. Prevalence of ARI varies by age of child (Figure 12.5). Children age 6-11 months have the greatest chance of having ARI symptoms (27 percent), compared with all other age groups. There are no differences in the prevalence of ARI by sex of the child, mother's

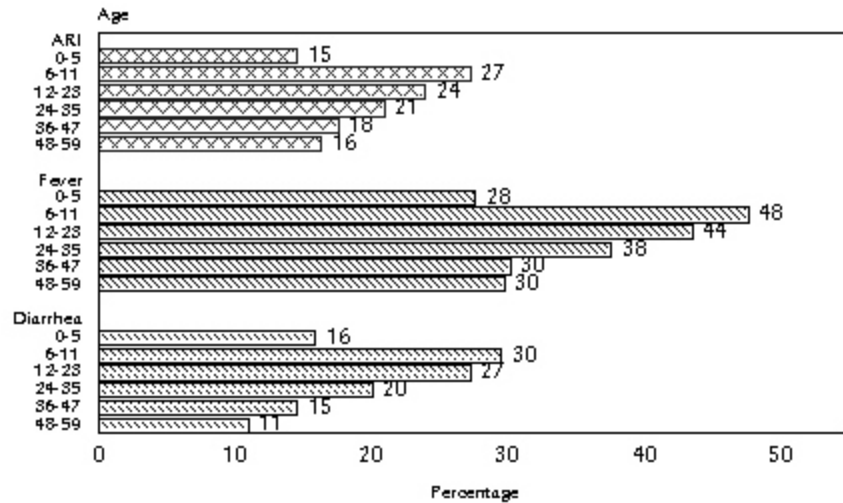
Table 12.19 Prevalence and treatment of fever and acute respiratory infection (ARI)

Percentage of children under five years who were ill with fever and percentage of children under five years who were ill with a cough accompanied by short, rapid breathing (symptoms of ARI) in the two weeks preceding the survey, and percentage of children with fever and/or symptoms of ARI taken to a health facility or provider, by background characteristics, Cambodia 2000

Background characteristic	Percentage with fever	Percentage with ARI	Number of children	Among children with fever and/or ARI, treatment sought:				Number of children with fever/ARI
				Public medical sector	Private medical sector	Nonmedical sector other	No advice/treatment	
Child's age								
<6 months	27.7	14.6	812	13.1	13.2	36.4	37.7	240
6-11 months	47.7	27.3	788	16.5	21.2	31.8	32.7	389
12-23 months	43.6	24.0	1,253	14.2	29.0	35.4	25.5	560
24-35 months	37.6	21.0	1,379	9.7	23.2	39.6	29.8	535
36-47 months	30.2	17.6	1,541	10.5	22.4	41.8	27.4	486
48-59 months	29.8	16.4	1,553	12.2	17.3	38.0	34.6	487
Child's sex								
Male	35.7	20.0	3,696	14.2	22.7	35.5	30.2	1,361
Female	35.2	19.6	3,631	10.8	21.3	39.4	30.8	1,337
Birth order								
1	34.5	19.0	1,401	15.0	24.8	36.6	26.2	505
2-3	36.0	18.4	2,665	13.9	23.5	35.3	29.5	989
4-5	37.0	22.9	1,625	10.6	21.6	38.0	32.4	625
6+	33.7	19.6	1,635	10.0	17.4	41.2	33.7	579
Residence								
Urban	34.5	19.4	979	15.1	28.2	38.4	22.9	354
Rural	35.6	19.8	6,348	12.1	21.1	37.3	31.6	2,344
Region								
Banteay Mean Chey	36.1	21.1	383	6.2	14.2	0.6	80.2	148
Kampong Cham	45.1	23.4	1,009	11.4	20.1	17.4	52.1	481
Kampong Chhnang	53.9	30.6	326	8.8	13.3	64.6	17.4	182
Kampong Spueu	15.4	8.7	443	20.1	41.5	33.3	10.7	69
Kampong Thum	32.3	17.6	406	11.0	16.9	70.9	2.5	132
Kandal	46.8	31.7	641	12.7	20.9	43.8	25.2	306
Kaoh Kong	35.6	19.5	87	4.9	36.8	46.0	12.9	33
Phnom Penh	42.2	23.7	420	18.4	21.3	24.4	37.5	191
Prey Veang	4.0	2.8	533	*	*	*	*	23
Pousat	52.8	25.2	238	11.8	14.4	63.1	14.2	131
Svay Rieng	48.4	12.8	276	8.9	22.3	51.0	17.8	135
Takaev	21.8	13.9	539	17.6	31.7	26.4	25.2	123
Bat Dambang/ Krong Pailin	31.9	18.1	563	10.3	35.8	30.1	30.6	181
Kampot/Krong Kaeb/ Krong Preah Sihanouk	29.2	19.1	451	3.9	44.5	31.1	23.6	145
Preah Vihear/Stueng Traeng/Kracheh	42.1	17.2	335	19.7	22.2	38.5	19.9	144
Mondol Kiri/ Rotanak Kiri	33.8	15.8	115	22.5	21.7	21.3	37.5	40
Siem Reab/Otdar Mean Chey	41.0	27.3	562	16.8	8.3	62.6	16.2	233
Education								
No education	35.5	19.7	2,363	9.1	19.1	41.4	32.6	864
Primary	35.9	20.0	3,917	12.8	22.4	36.7	30.4	1,473
Secondary and higher	33.6	19.3	1,047	19.4	27.2	30.9	25.5	360
Total	35.4	19.8	7,327	12.5	22.0	37.4	30.5	2,698

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

Figure 12.5 Prevalence of ARI, Fever, and Diarrhea by Age in Months



CDHS 2000

education, and place of residence. Children of birth order four or five were slightly more likely to have ARI symptoms than children of other birth orders. There are significant regional variations in the prevalence of ARI: Prey Veang had the lowest (3 percent) and Kandal had the highest (32 percent) ARI prevalence among children under five.

The prevalence of fever varies by age of child. As for ARI, children age 6-11 months and 12-23 months are more commonly sick with fever (48 and 44 percent, respectively) than other children (Figure 12.5). There are no significant variations in the prevalence of fever by sex of the child or birth order. Similarly, there is no notable difference in the prevalence of fever between children in urban and rural areas. Regional variations, however, are significant, ranging from 4 percent in Prey Veang to 54 percent in Kampong Chhnang. Mother's education has little impact on the prevalence of fever among children less than five years old.

About one-third (35 percent) of all children under five with cough and rapid breathing and/or fever were taken to a medical health facility or provider to seek treatment or advice, and 37 percent of children were taken for treatment to nonmedical sector. However, 31 percent of children received no treatment for fever or ARI. Male children are slightly more likely than female children to be taken to a health provider in the medical sector. The proportion of children with cough and rapid breathing or fever who were taken to the medical sector is higher (43 percent) in urban areas than in rural areas (33 percent). In Banteay Mean Chey, 80 percent of children receive no treatment or advice. On the other hand, only 3 percent of children in Kampong Thum received no treatment; however, they get treated more from the nonmedical sector (71 percent) than from the medical sector (28 percent). Children of women with secondary and higher education visit the medical sector more than the nonmedical sector.

Table 12.20 shows the type of treatment children received when they were ill with fever in the two weeks preceding the survey. Eighty-four percent of children received pills or syrup as treatment for fever. Pills could also be antimalarial tablets given for treatment of malaria. About one in six children received intravenous drips or injections, reflecting severity of the illness. Seven percent of children received home remedies or other treatment for fever, and one in ten children did not receive any treatment for fever. Children less than six months of age received less treatment for fever. Children in urban areas received more pills or syrup for treatment of fever than rural areas. Children of women with secondary or higher education also received more treatment (pills/syrup or IV/injection) than children of mothers with no education.

Table 12.20 Treatment of fever

Percentage of children under five years who were ill with a fever in the two weeks preceding the survey, by the type of treatment received according to background characteristics, Cambodia 2000

Background characteristic	Treatment of fever					Number of children with fever
	Pill or syrup	Injection/ IV	Home remedy/ other	Don't know	No treatment	
Child's age						
<6 months	76.0	9.0	10.2	1.3	16.1	225
6-11 months	83.8	17.3	8.7	0.4	9.4	376
12-23 months	87.2	21.2	5.1	0.7	6.7	546
24-35 months	81.8	19.6	6.9	1.4	9.4	519
36-47 months	86.4	12.9	7.0	0.9	8.8	466
48-59 months	84.9	15.0	6.1	0.7	10.9	463
Child's sex						
Male	83.5	18.1	6.7	0.7	10.3	1,318
Female	84.7	15.2	7.2	1.1	8.8	1,277
Residence						
Urban	91.8	16.1	4.1	1.1	4.5	337
Rural	82.9	16.8	7.4	0.8	10.3	2,258
Region						
Banteay Mean Chey	65.1	13.8	22.5	3.3	12.4	138
Kampong Cham	80.6	18.2	5.2	1.0	14.2	455
Kampong Chhnang	79.7	9.8	7.2	0.3	14.3	176
Kampong Spueu	93.2	32.3	4.1	0.0	2.7	68
Kampong Thum	87.7	18.3	7.8	0.0	4.5	131
Kandal	95.9	19.3	1.1	0.0	3.1	300
Kaoh Kong	84.3	8.0	5.4	1.9	7.8	31
Phnom Penh	95.0	10.1	4.5	0.0	3.4	177
Prey Veang	*	*	*	*	*	21
Pousat	84.3	10.2	4.4	0.0	8.6	126
Svay Rieng	82.5	12.4	17.4	1.1	5.1	134
Takaev	81.5	20.5	16.8	3.8	10.7	118
Bat Dambang/ Krong Pailin	90.5	33.7	4.0	0.0	6.1	180
Kampot/Krong Kaeb/ Krong Preah Sihanouk	78.2	21.6	3.7	1.8	11.6	132
Preah Vihear/Stueng Traeng/Kracheh	80.5	8.1	8.8	0.7	11.0	141
Mondol Kiri/ Rotanak Kiri	65.5	5.6	1.1	0.8	32.6	39
Siem Reab/Otdar Mean Chey	82.9	13.9	5.6	1.1	12.0	230
Mother's education						
No education	80.5	14.2	7.7	1.4	12.5	838
Primary	84.6	18.2	6.7	0.5	9.4	1,406
Secondary and higher	90.6	16.5	6.0	1.3	3.2	352
Total	84.1	16.7	6.9	0.9	9.5	2,595

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

12.8 PREVALENCE OF DIARRHEA AND TREATMENT

Diarrhea has been singled out for investigation for two reasons. Dehydration from diarrhea is a major cause of death in infancy and childhood and the condition can be easily treated by oral rehydration therapy (ORT). This makes diarrhea and its management a high priority for health programs. In interpreting the findings of the CDHS 2000, it should be borne in mind that the prevalence of diarrhea may be affected by recall bias of the mother as to when an episode of diarrhea actually occurred and that the number of diarrhea cases varies seasonally.

Table 12.21 Prevalence of diarrhea

Percentage of children under five years with diarrhea in the two weeks preceding the survey, by background characteristics, Cambodia 2000

Background characteristic	Watery diarrhea in preceding 2 weeks	Diarrhea with blood in preceding 2 weeks	Any type of diarrhea in preceding 2 weeks	Number
Child's age				
<6 months	15.9	3.3	16.1	812
6-11 months	29.6	7.5	29.7	788
12-23 months	27.3	6.6	27.5	1,253
24-35 months	20.1	5.0	20.2	1,379
36-47 months	14.6	4.0	14.6	1,541
48-59 months	11.0	2.1	11.0	1,553
Child's sex				
Male	20.1	4.9	20.2	3,696
Female	17.5	4.2	17.6	3,631
Residence				
Urban	15.5	3.9	15.8	979
Rural	19.3	4.6	19.4	6,348
Region				
Banteay Mean Chey	20.0	4.5	20.3	383
Kampong Cham	21.0	8.0	21.0	1,009
Kampong Chhnang	33.2	10.3	33.6	326
Kampong Spueu	6.0	1.5	6.0	443
Kampong Thum	19.7	5.4	19.9	406
Kandal	29.7	2.8	29.7	641
Kaoh Kong	19.5	6.1	19.8	87
Phnom Penh	24.0	4.0	24.4	420
Prey Veaeang	3.1	0.6	3.1	533
Pousat	31.9	8.4	32.4	238
Svay Rieng	27.3	3.5	27.3	276
Takaev	8.3	1.3	8.3	539
Bat Dambang/ Krong Pailin	9.7	1.8	9.7	563
Kampot/Krong Kaeb/ Krong Preah Sihanouk	20.9	4.0	20.9	451
Preah Vihear/Stueng Traeng/Kracheh	22.7	4.2	22.9	335
Mondol Kiri/Rotanak Kiri	21.5	3.0	21.5	115
Siem Reab/Otdar Mean Chey	18.3	8.1	18.5	562
Mother's education				
No education	18.7	5.5	18.8	2,363
Primary	19.6	4.3	19.7	3,917
Secondary and higher	16.0	3.3	16.1	1,047
Specific project areas				
CDCP	19.5	4.2	19.6	3,780
BHSP	17.0	5.0	17.1	2,682
Total	18.8	4.5	18.9	7,327

Prevalence of diarrhea

Table 12.21 shows the percentage of children under five with diarrhea (watery diarrhea, diarrhea with blood, or any type of diarrhea) in the two weeks preceding the survey according to selected background characteristics. Nineteen percent of all children less than five years of age have experienced diarrhea (any type) at some time in the two weeks before the survey. Watery diarrhea was reported for 19 percent of children and diarrhea with blood for 5 percent of children. The occurrence of diarrhea varies by age of the child and follows the same pattern as ARI and fever (Figure 12.5). Young children age 6-23 months are more prone to diarrhea than children in the other age groups and constitute the most vulnerable age group in terms of childhood diseases. Slightly higher diarrhea was reported for males than for females.

Episodes of diarrhea are more common among rural children than among urban children. There are also some variations in the prevalence of diarrhea by regions. Children living in Kampong Chhnang are more susceptible to episodes of diarrhea (34 percent any diarrhea and 10 percent diarrhea with blood) than children living in other regions. Children living in Prey Veang have the lowest prevalence of diarrhea when compared with children from other regions (3 percent). Similarly, the prevalence of diarrhea among children of mothers with no education (19 percent) is higher than among children of mothers with secondary or higher education (16 percent).

Knowledge of ORS packets

Rehydration therapy may include the use of a solution prepared from packets of oral rehydration salts (ORS) or recommended home fluids (RHF) such as sugar-salt-water solution. In addition, it is recommended that food intake should not be decreased for children suffering from diarrhea. To ascertain how widespread knowledge of ORS is in Cambodia, respondents were asked whether they know about ORS packets.

Table 12.22 shows that half (50 percent) of women who gave birth in the five years preceding the survey know about ORS packets. Young mothers less than 20 years of age are somewhat less likely to know about ORS packets than older women. There are differences in the knowledge of

Table 12.22 Knowledge of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about ORS packets for treatment of diarrhea, by background characteristics, Cambodia 2000

Background characteristic	Percentage of mothers who know about ORS packets	Number
Mother's age		
15-19	42.8	201
20-24	46.1	847
25-29	48.5	1,428
30-34	54.0	1,363
35-49	50.4	1,876
Residence		
Urban	63.8	779
Rural	47.7	4,935
Region		
Banteay Mean Chey	28.8	292
Kampong Cham	26.3	785
Kampong Chhnang	54.2	245
Kampong Spueu	61.3	342
Kampong Thum	53.7	306
Kandal	73.0	496
Kaoh Kong	28.6	67
Phnom Penh	90.3	336
Prey Veang	21.0	450
Pousat	47.7	186
Svay Rieng	60.5	229
Takaev	71.8	434
Bat Dambang/Krong Pailin	72.4	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	25.9	384
Preah Vihear/Stueng Traeng/ Kracheh	53.9	249
Mondol Kiri/Rotanak Kiri	60.7	87
Siem Reab/Otdar Mean Chey	36.0	409
Mother's education		
No education	35.6	1,827
Primary	51.8	3,069
Secondary and higher	74.9	818
Specific project areas		
CDCP	59.5	2,922
BHSP	41.2	2,142
Total	49.9	5,714

ORS = Oral rehydration salts

ORS packets between women residing in urban and rural areas. Knowledge is higher among urban women (64 percent) than among rural women (48 percent). Knowledge of ORS also varies by region. Ninety percent of mothers in Phnom Penh know about ORS packets, compared with about a quarter of mothers in Kampot/Krong Kaeb/Krong Preah Sihanouk. There are pronounced differences in the knowledge of ORS packets by educational level of mothers: three-quarters (75 percent) of mothers with secondary and higher education know about ORS packets, compared with 36 percent of mothers with no education.

Diarrhea treatment

Table 12.23 presents the percentage of children with diarrhea who received specific treatments according to background characteristics. Twenty-two percent of children with diarrhea in the two weeks prior to the survey were taken to a health provider. There is little variation by age or sex of the child in the percentage of children with diarrhea taken to a health provider. First births are more likely to be taken to a health facility than children of higher birth order. Notable differences also exist by place of residence. The proportion of children taken to a health facility in urban areas (32 percent) is higher than in rural areas (20 percent). Similarly, children of mothers with secondary and higher education (31 percent) are more likely to be taken to a health provider than children of mothers with primary or no education (20 percent).

Three quarters of children with diarrhea were treated with some kind of oral rehydration therapy: 18 percent were treated with a solution prepared from an ORS packet, 3 percent were given recommended home fluids prepared at home, and 40 percent were given rice water. Overall, 48 percent received either ORS or RHF or rice water, and more than half (53 percent) were given increased fluids. Fifty-seven percent of children were given a pill or syrup, 9 percent were given home remedies, and 7 percent were given an injection. However, 12 percent of children with diarrhea did not receive any type of treatment at all.

Diarrhea treatment does not vary significantly with age. Slight variations exist between urban and rural areas. Children in urban areas are more likely to receive ORS (25 percent) and either ORS, RHF, or rice water (51 percent), compared with children in rural areas (17 and 47 percent, respectively). Children who live in Takaev (80 percent) received more of either ORS, RHF, or rice water, compared with children from other regions. Children of educated mothers are also more likely to receive ORS, RHF, or rice water compared with children of less educated mothers.

Table 12.23 Diarrhea treatment

Among children under five years who had diarrhea in the two weeks preceding the survey, the percentage taken for treatment to a health facility, the percentage who received oral rehydration therapy (solution prepared from ORS packets, recommended home fluids (RHF), rice water, or increased fluids), and the percentage given other treatments, according to background characteristics, Cambodia 2000

Background characteristic	Oral rehydration therapy							Other treatments					Number
	Percentage taken to a health facility	ORS	RHF at home	Rice water	Either ORS/RHF or rice water	In-creased fluids	Given ORS, RHF, or in-creased fluids	Pill or syrup	Injection	Home remedy/ other	Missing	No treatment	
Child's age													
<6 months	13.5	10.6	2.1	13.5	21.6	26.6	41.0	36.6	0.1	6.5	1.2	34.6	130
6-11 months	24.7	17.9	2.9	37.1	46.2	44.0	67.8	56.3	9.5	7.7	0.4	13.1	234
12-23 months	28.7	23.4	2.9	45.6	55.8	56.5	78.7	62.1	11.5	9.4	0.7	6.9	345
24-35 months	23.8	24.0	3.4	46.7	54.8	58.1	83.0	59.2	5.4	10.7	0.7	7.7	279
36-47 months	13.4	10.9	1.7	37.3	41.5	59.3	75.2	55.7	4.8	7.5	0.0	10.7	226
48-59 months	16.8	11.2	5.8	44.6	49.3	62.7	83.2	57.4	3.8	10.5	0.3	8.9	171
Child's sex													
Male	21.4	17.6	3.5	41.7	48.2	52.0	74.0	55.8	8.5	9.7	0.4	11.8	747
Female	21.9	18.1	2.6	37.7	47.0	54.4	74.3	57.4	4.8	8.0	0.7	11.3	638
Birth order													
1	24.6	16.4	4.1	36.9	44.5	53.5	76.2	49.4	9.9	10.8	0.0	12.4	244
2-3	23.3	20.3	3.1	41.3	49.7	52.5	75.0	57.4	5.7	7.8	1.0	12.4	506
4-5	17.2	15.6	2.3	37.9	46.2	53.7	72.0	58.6	5.4	8.9	0.7	11.5	337
6+	21.3	17.4	3.0	42.2	48.2	53.2	73.5	58.5	7.7	9.4	0.0	9.6	298
Residence													
Urban	31.8	24.9	2.4	36.4	51.0	53.6	75.7	64.0	8.1	5.5	1.0	9.5	154
Rural	20.3	17.0	3.2	40.3	47.2	53.1	74.0	55.6	6.7	9.3	0.5	11.8	1,231
Region													
Banteay Mean Chey	9.4	13.0	8.2	35.4	38.9	51.6	65.9	48.1	3.5	14.1	2.4	13.1	78
Kampong Cham	17.9	6.7	2.3	27.0	29.3	52.8	64.1	56.1	4.5	6.7	0.0	14.6	212
Kampong Chhnang	19.6	10.8	0.0	33.1	37.4	71.5	79.7	39.9	1.6	13.6	0.0	9.5	109
Kampong Spueu	(44.8)	(20.7)	(0.0)	(31.2)	(44.9)	(55.2)	(69.0)	(58.6)	(3.5)	(17.3)	(3.4)	(13.8)	27
Kampong Thum	4.2	11.6	0.0	42.1	47.4	69.5	83.1	59.9	4.3	23.2	0.0	7.5	81
Kandal	27.7	32.6	0.9	52.2	61.7	38.3	75.5	75.4	9.5	0.9	0.0	5.4	190
Kaoh Kong	36.2	13.9	5.8	53.0	57.5	72.8	85.7	58.8	8.1	6.4	0.0	5.6	17
Phnom Penh	26.4	39.8	0.0	44.7	62.7	54.1	79.3	50.0	5.6	2.8	1.5	13.8	103
Prey Veaeang	*	*	*	*	*	*	*	*	*	*	*	*	17
Pousat	13.5	8.2	2.9	40.5	47.6	46.2	71.1	59.2	5.6	4.4	0.6	10.6	77
Svay Rieng	10.1	13.0	4.0	34.7	41.7	54.1	71.7	44.7	4.1	8.0	2.0	20.0	75
Takaev	(38.4)	(18.0)	(12.8)	(76.9)	(79.6)	(33.4)	(82.1)	(56.4)	(17.8)	(15.5)	(2.5)	(10.3)	45
Bat Dambang/ Krong Pailin	(36.5)	(33.5)	(6.6)	(51.8)	(65.7)	(55.7)	(84.0)	(82.6)	(19.7)	(0.0)	(0.0)	(6.5)	55
Kampot/Krong Kaeb/ Krong Preah Sihanouk	24.5	10.8	6.1	42.9	47.8	50.3	76.6	49.2	10.0	15.3	0.0	11.8	94
Preah Vihear/Stueng Traeng/Kracheh	13.5	21.9	7.0	32.7	44.0	21.7	51.9	41.9	1.5	9.9	0.0	26.8	77
Mondol Kiri/ Rotanak Kiri	34.1	20.2	3.4	65.6	72.0	55.2	79.6	24.0	0.7	8.8	0.0	13.2	25
Siem Reab/Otdar Mean Chey	21.3	11.1	0.8	23.0	34.6	79.1	85.7	68.9	7.5	9.1	0.0	5.4	104
Mother's education													
No education	20.1	10.5	2.9	35.6	40.7	55.5	71.6	52.8	4.5	9.3	0.1	12.6	444
Primary	20.4	18.7	3.5	40.4	48.9	53.9	74.4	56.8	7.8	9.6	0.7	11.6	772
Secondary and higher	31.1	32.9	1.7	48.9	59.9	43.2	79.8	64.8	8.3	4.8	0.9	8.8	169
Specific project areas													
CDCP	22.5	22.5	1.8	42.7	52.5	52.4	76.6	63.1	7.6	7.2	0.4	9.8	741
BHSP	21.0	10.6	3.3	35.6	39.7	56.3	71.8	50.0	6.2	10.2	0.6	13.7	458
Total	21.6	17.8	3.1	39.9	47.6	53.1	74.1	56.5	6.8	8.9	0.5	11.6	1,385

ORS = Oral rehydration salts

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

Feeding practices

Table 12.24 shows the percent distribution of children under five who had diarrhea in the past two weeks, by feeding practices. Thirty percent of children who had diarrhea were given the same amount of liquid as usual, 53 percent were given more than the usual amount, and 12 percent were given less.

More than half of the children with diarrhea (52 percent) were given less than the usual amount of food, 34 percent were given the same amount of food, 8 percent were given more food than usual, and 2 percent of children were not given any food.

Table 12.24 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey, by amount of liquid offered and amount of food offered compared with normal practice, Cambodia 2000

Feeding practice	Percent
Amount of liquid offered	
Same as usual	30.4
More	53.1
Less	12.3
None	0.6
Don't know/missing	3.6
Amount of food offered	
Same as usual	33.6
More	8.2
Less	52.0
None	1.9
Never gave food	3.0
Don't know/missing	1.3
Total	100.0
Number	1,385

This chapter focuses on infant feeding practices and the anthropometric and micronutrient status of women and children. Infant feeding practices, including breastfeeding and complementary feeding patterns, and the prevalence of bottle-feeding are presented first. Anthropometric data (height and weight) collected in the survey are used to assess the current nutritional status of children under age five as well as that of the women age 15-49. The chapter considers information collected on the prevalence of anemia in children under five and in women 15-49 years. Other important nutritional issues, including the level of vitamin A supplementation and the iodization of salt used in the household, are also discussed.

13.1 BREASTFEEDING AND SUPPLEMENTATION

Breastfeeding and complementary feeding behaviors are important predictors of infant and child nutrition, health, and survival. Poor nutritional status has been shown to increase the risk of illness and death among children. Breastfeeding practices also have an effect on the mother's fertility. A well-documented effect of frequent breastfeeding for long durations is delayed return to ovulation and therefore longer birth intervals and lower fertility, which is strongly related to infant and child survival.

Initiation of breastfeeding

Breast milk excels as the most desirable source of nutrients for the young infant. Breastfeeding provides a complete source of nutrition for the first month of life, half of all requirements in the second six months of life, and one-third of all requirements in the second year of life. The attributes of breast milk go beyond its nutrient content as it offers the infant unsurpassed protection against infection. Colostrum, a premilk substance containing antibodies and white cells from the mother's blood is produced during the first two to three days of lactation. Colostrum contains maternal immune factors and helps protect the newborn infant from infections. There is evidence that links having been breastfed as a child with stronger intellectual development and a reduced risk of cancer, obesity, and several chronic diseases. The early initiation of breastfeeding is also beneficial for the mother since it stimulates breast milk production and causes the uterus to retract, which can reduce postpartum blood loss. Furthermore, women who breastfeed have a reduced risk of ovarian cancer and premenopausal breast cancer (ACC/SCN, 2000).

Table 13.1 shows that breastfeeding is almost universal in Cambodia. The prevalence of breastfed infants born in the five years preceding the survey is 96 percent, which is similar to the findings reported in the NSH 1998 survey. There are small regional differences in the percentage of infants ever breastfed. The capital city, Phnom Penh, has the lowest percentage (90 percent), while 98 percent of infants in Prey Veang are breastfed. There is also a difference based on place of delivery. A larger proportion of children who were delivered at home are breastfed than children who were delivered in a health facility (97 versus 89 percent).

Table 13.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed the percentage who started breastfeeding within one hour and within one day of birth, and who received a prelacteal feed, by background characteristics, Cambodia 2000

Background characteristic	Percentage ever breastfed	Number of all children	Percentage who started breastfeeding:		Percentage who received a prelacteal feed ²	Number of children ever breastfed
			Within 1 hour of birth	Within 1 day of birth ¹		
Sex						
Male	95.1	4,161	10.4	23.7	57.7	3,957
Female	96.4	4,014	11.7	25.1	56.7	3,868
Residence						
Urban	92.8	1,076	13.2	26.8	62.4	999
Rural	96.2	7,098	10.7	24.0	56.5	6,826
Region						
Banteay Mean Chey	95.3	418	26.0	37.6	65.8	399
Kampong Cham	94.9	1,135	6.0	21.7	67.9	1,077
Kampong Chhnang	96.1	385	5.3	20.1	50.0	371
Kampong Spueu	97.5	478	25.9	34.4	6.1	466
Kampong Thum	97.5	441	7.7	11.8	55.7	430
Kandal	96.9	700	12.3	18.1	74.0	679
Kaoh Kong	90.8	94	8.7	22.2	58.8	85
Phnom Penh	90.4	433	10.5	28.1	67.1	391
Prey Veang	98.0	599	5.4	28.5	77.7	587
Pousat	96.7	276	5.7	17.4	41.8	267
Svay Rieng	95.8	323	28.7	48.7	64.2	310
Takaev	96.3	610	13.7	31.3	58.7	588
Bat Dambang/ Krong Pailin	95.1	633	5.6	19.6	68.6	602
Kampot/Krong Kaeb/ Krong Preah Sihanouk	91.7	520	2.4	12.5	71.7	477
Preah Vihear/Stueng						
Traeng/Kracheh	97.8	369	13.0	29.2	51.2	361
Mondol Kiri/Rotanak Kiri	95.2	140	27.0	32.7	23.3	134
Siem Reap/Otdar Mean Chey	97.5	619	7.3	18.1	22.0	603
Mother's education						
No education	96.1	2,685	12.0	25.3	50.4	2,580
Primary	95.9	4,379	9.5	22.2	60.1	4,198
Secondary and higher	94.3	1,110	14.7	30.9	62.7	1,047
Assistance at delivery						
Trained personnel	93.2	2,602	14.7	30.3	65.7	2,424
Traditional birth attendant	96.9	5,418	8.9	21.5	54.2	5,252
Other	(91.9)	51	(67.6)	(67.6)	(40.4)	47
No one	*	17	*	*	*	16
Place of delivery						
Health facility	88.5	812	18.4	34.4	64.1	718
Home	96.5	7,273	10.3	23.6	57.0	7,017
Total	95.7	8,175	11.0	24.4	57.2	7,825

Note: Total includes 87 children for whom information on assistance at delivery is missing and 75 children for whom information on place of delivery is missing. 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.

¹ Includes children who started breastfeeding within one hour of birth.

² Excludes plain water

Among Cambodian children who were breastfed, Table 13.1 shows that the majority do not begin breastfeeding soon after birth. A little more than one-tenth of the infants were put to the breast within an hour after delivery, and one-fourth of infants were breastfed within the first day. Both assistance at delivery by trained personnel and delivery at a health facility are associated with slightly higher proportion of infants for whom breastfeeding was initiated within an hour of birth. Even among these groups, breastfeeding was initiated within 24 hours for approximately one in three children who were born in a health facility. However, only one in five children were given breast milk within 24 hours of birth in deliveries that were assisted by a traditional birth attendant. In general, mother's characteristics associated with facility deliveries or assistance at delivery by trained personnel (e.g., urban residence and higher educational levels) are also associated with somewhat early initiation of breastfeeding. Despite the high proportion of children ever breastfed, lower levels of early initiation of breastfeeding may be reflective of culture-specific ideologies.

Prelacteal feeding is the practice of giving other liquids to a child during the period after birth before the mother's milk is flowing freely. Overall, according to Table 13.1, a total of 57 percent of infants received a prelacteal feed. The proportion of infants receiving a prelacteal feed is higher in urban areas than in rural areas (62 versus 57 percent). Regional differences are variable, with the highest proportion in Prey Veang (78 percent), compared with 6 percent in the province of Kampong Spueu.

Introduction of complementary feeding

Exclusive breastfeeding, defined as consumption of human milk as a sole source of energy, is the preferred method of feeding for normal full-term infants from birth to six months. Breastfeeding complemented by the appropriate introduction of other foods is recommended for the remainder of the first year or longer if desired.

Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially diarrheal disease. Second, it decreases the infant's intake of breast milk and therefore suckling, which reduces breast milk production. Third, in a harsh socioeconomic environment, supplementary food is often nutritionally inferior. Moreover, it is difficult to meet the zinc and iron requirements of children 6-24 months even in the best conditions. Inadequate micronutrient and energy intake is often coupled with a high prevalence of both clinical and subclinical morbidity, which is often associated with anorexia. This age is the period of active growth faltering; therefore, interventions to improve intake of complementary foods can result in improved infant and child growth among populations at risk for undernutrition.

Information on supplementation was obtained by asking mothers about the current breastfeeding status of all children under five years of age, and the food (liquids and solids) given to the children the day before the survey. Even though information on breastfeeding was collected for all children born in the five years preceding the survey, the tables are restricted to children born in the three years before the survey because most children are weaned by age three.

Table 13.2 shows the percent distribution of living children in the three years before the survey by breastfeeding status. Contrary to WHO's recommendation of exclusive breastfeeding for up to the first 6 months of life, only 18 percent of Cambodian children less than two months old are exclusively breastfed. By age 4-5 months, only 5 percent of children are exclusively breastfed. The table shows that less than three-fourths of children under 2 months of age consume plain

Table 13.2 Breastfeeding status by child's age

Percent distribution of youngest living children under three years of age by breastfeeding status and percentage using a bottle with a nipple, according to child's age in months, Cambodia 2000

Child's age in months	Breastfeeding and:						Total	Using a bottle with a nipple	Number of children
	Not breast-feeding	Exclusively breastfed	Plain water only	Water-based liquids, juice	Other milk	Complementary foods			
<2	0.4	17.9	70.1	4.4	3.0	4.1	100.0	9.9	231
2-3	0.8	11.9	67.5	2.8	6.0	11.1	100.0	11.9	296
4-5	2.2	5.4	56.4	2.7	1.6	31.6	100.0	12.8	275
6-7	7.1	2.0	27.5	0.2	0.0	63.1	100.0	19.0	267
8-9	6.1	1.6	10.9	1.2	0.1	80.0	100.0	17.1	262
10-11	4.2	0.0	10.8	0.4	0.0	84.6	100.0	19.2	251
12-13	10.6	0.0	4.2	0.0	0.0	85.2	100.0	16.0	241
14-15	13.8	0.0	4.6	0.0	0.0	81.6	100.0	16.8	221
16-17	21.3	0.0	0.1	0.0	0.0	78.6	100.0	23.3	192
18-19	32.7	1.3	4.4	0.0	0.0	61.5	100.0	23.7	181
20-21	39.7	0.0	0.3	0.0	0.0	60.0	100.0	20.8	184
22-23	43.1	0.0	1.2	1.3	0.0	54.4	100.0	11.1	183
24-25	53.0	0.9	1.5	0.0	0.0	44.6	100.0	9.9	229
26-27	61.3	0.6	0.0	0.0	0.0	38.1	100.0	14.4	200
28-29	77.9	0.0	0.0	0.0	0.0	22.1	100.0	18.6	161
30-31	85.0	0.0	0.0	0.0	0.0	15.0	100.0	21.2	150
32-33	77.3	0.0	0.0	0.0	0.0	22.7	100.0	17.9	132
34-35	77.2	0.0	0.0	0.0	0.0	22.8	100.0	18.1	161
<4	0.7	14.5	68.6	3.5	4.7	8.0	100.0	11.0	527
4-5	2.2	5.4	56.4	2.7	1.6	31.6	100.0	12.8	275
6-9	6.6	1.8	19.3	0.7	0.1	71.5	100.0	18.0	530
All <36	28.5	2.8	17.8	0.9	0.8	49.3	100.0	16.4	3,818

Note: Breastfeeding status refers to last 24 hours. Children classified as *breastfeeding and plain water only* receive no supplements.

water and breast milk, 4 percent consume breast milk and other water-based liquids or juices, 3 percent consume other milk (e.g., fresh milk or powdered milk), and 4 percent are given complementary food. Weaning takes place rapidly by 6-7 months: more than two-thirds of children consume complementary food by this age. By 24-25 months, a little less than 50 percent of children are being breastfed.

Bottle-feeding is discouraged among very young children. It is usually associated with increased risk of illness, especially diarrheal disease, because of difficulty in sterilizing the nipples properly. Bottle-feeding also shortens the period of postpartum amenorrhea and increases the risk of pregnancy. The practice of bottle-feeding with a nipple is not common in Cambodia. However, the proportion of children who are bottle-fed rises from 11 percent among children less than 4 months old to 18 percent among children 6-9 months of age.

Duration and frequency of breastfeeding

The median duration of breastfeeding by selected background characteristics is shown in Table 13.3. The estimates of mean and median duration of breastfeeding are based on current status data; that is, the proportion of children under three years who were being breastfed at the time of the survey.

Table 13.3 Median duration and frequency of breastfeeding

Median durations of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the last three years preceding the survey, and the percentage of breastfeeding children under six months who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Cambodia 2000

Background characteristic	Median duration (months) of breastfeeding				Breastfeeding children under six months ³			
	Any breast-feeding	Exclusive breast-feeding	Pre-dominant breast-feeding ¹	Number of children ²	Percentage breastfed 6+ times in last 24 hours	Mean number of feeds		Number of children
						Day	Night	
Child's sex								
Male	24.4	0.4	5.2	1,939	98.9	6.1	4.8	392
Female	22.6	0.5	5.5	1,880	98.1	6.0	4.3	400
Residence								
Urban	(21.0)	(0.4)	(4.9)	507	98.5	6.0	4.4	102
Rural	24.0	0.5	5.4	3,311	98.5	6.1	4.6	690
Mother's education								
No education	25.5	0.4	5.7	1,219	99.5	6.0	4.7	257
Primary	22.6	0.5	5.3	2,024	98.3	6.2	4.5	424
Secondary and higher	(22.9)	(0.4)	(4.6)	574	96.8	5.7	4.5	111
All children	23.7	0.5	5.3	3,818	98.5	6.1	4.5	792
Mean for all children	24.0	1.5	6.7	NA	NA	NA	NA	NA

NA = Not applicable

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

¹ Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice.

² Based on children whether living or dead at the time of interview

³ Excludes children who do not have a valid answer on number of times breastfed

The median and mean duration of breastfeeding are similar: 23.7 months and 24 months, respectively (Table 13.3). There is a slight difference in the duration of breastfeeding by sex of the child. Rural children are breastfed for a slightly longer duration. Mothers with primary and higher education breastfeed their children for a shorter duration than mothers with no education.

Both duration and frequency of breastfeeding can affect the length of postpartum amenorrhea. Table 13.3 shows that the majority of children under 6 months of age were breastfed six or more times in the 24 hours preceding the survey. Breastfeeding is more frequent in the daytime than at night, with the mean number of feeds in the daytime being 6.1 compared with 4.5 at night. Breastfeeding is more frequent among children residing in rural areas and among children of mothers with no education.

Types of supplemental food

Information on the types of food given to children under three years in the 24 hours preceding the survey, according to their breastfeeding status, is shown in Table 13.4. In Cambodia, the introduction of other liquids such as water, juice, and formula takes place earlier than the recommended age of about 6 months. Even among the youngest breastfeeding children (less than 2 months), 6 percent consumed other liquids, and 2 percent drank milk other than breast milk. Use of other liquids increases with age, and by 24-35 months, one in two children (50 percent) receive liquid supplements.

Table 13.4 Foods consumed by youngest children in preceding 24 hours

Percentage of youngest children under three years of age who consumed specific foods in the 24 hours preceding the interview, by breastfeeding status and child's age, Cambodia 2000

Child's age in months	Percentage of children who received specific foods in preceding 24 hours ¹											Number of children
	Infant formula	Other milk	Other liquids ²	Grains/ bread/ cereal ³	Fruits/ vege- tables ⁴	Tubers/ roots ⁵	Beans/ legumes/ lentils ⁶	Meat/ fish/ poultry/ eggs ⁷	Any solid/ semisolid food	Foods rich in vitamin A ⁸	Oils/ fats/ coconut milk	
BREASTFEEDING CHILDREN												
<2	2.4	1.5	5.7	4.1	1.6	0.0	0.5	2.1	4.1	2.1	1.0	230
2-3	4.1	2.7	4.5	11.1	2.8	1.0	0.3	3.2	11.1	3.6	1.2	293
4-5	1.8	1.0	9.3	30.5	9.6	2.1	1.9	11.0	32.4	11.8	2.8	269
6-7	4.1	2.5	17.0	65.1	33.9	3.3	7.1	34.0	68.0	39.6	14.4	248
8-9	4.5	2.2	34.9	83.4	51.3	14.0	8.5	51.0	85.3	56.9	21.6	246
10-11	2.9	2.3	32.0	87.7	57.8	14.9	9.7	63.6	88.3	69.8	27.2	241
12-15	2.4	3.4	41.0	93.2	74.4	22.9	21.1	78.6	95.0	83.4	41.4	406
16-19	1.7	2.7	44.0	94.9	78.5	17.9	19.4	84.6	96.1	91.4	49.7	273
20-23	1.4	1.4	42.9	95.2	81.1	22.2	14.9	81.8	97.6	88.6	39.3	215
24-27	2.4	2.8	50.4	94.7	85.3	32.8	23.8	83.7	96.3	89.3	54.0	185
28-31	1.6	4.2	47.2	100.0	84.5	29.4	32.9	85.4	100.0	95.1	46.9	58
32-35	3.0	2.7	49.3	98.3	89.2	38.3	18.8	88.9	100.0	97.8	53.1	67
<4	3.3	2.2	5.0	8.1	2.3	0.5	0.4	2.7	8.1	3.0	1.1	523
4-5	1.8	1.0	9.3	30.5	9.6	2.1	1.9	11.0	32.4	11.8	2.8	269
6-9	4.3	2.3	25.9	74.2	42.5	8.6	7.8	42.5	76.6	48.2	18.0	495
Total <36	2.8	2.4	28.9	67.5	49.2	13.9	11.6	51.1	68.9	55.6	26.3	2,732
NONBREASTFEEDING CHILDREN												
12-15	19.2	13.0	41.9	91.9	79.3	21.1	25.0	84.0	96.2	87.3	51.3	56
16-19	12.9	11.4	53.5	93.5	74.6	29.7	29.4	88.4	93.7	90.8	48.2	100
20-23	4.0	9.2	54.5	99.1	87.6	22.0	30.8	87.4	99.9	95.9	51.5	152
24-27	3.5	4.4	52.4	96.3	85.0	27.9	21.6	92.7	99.4	95.9	51.1	244
28-31	4.1	4.9	53.7	96.8	85.2	29.1	25.6	88.9	98.8	96.2	53.6	253
32-35	3.9	3.0	54.3	96.5	83.8	26.3	23.1	92.8	98.2	95.1	57.3	227
Total <36	7.9	7.1	52.5	95.4	82.5	26.2	24.8	87.8	97.5	93.0	51.6	1,087

Note: Breastfeeding status refers to last 24 hours. Percentages may sum to more than 100 percent because the child may have received more than one type of supplement.

¹ Refers to the day and night preceding the interview

² Does not include plain water

³ Includes rice, rice flour, maize, bread, wheat, cakes, porridge, or noodles

⁴ Includes any green leafy vegetables, such as morning glory, basil, amaranth, and mustard greens; ripe mango, ripe papaya, jackfruit, or durian; any other fruit or vegetables, such as bananas, green beans, tomatoes, watermelon, or pineapple

⁵ Includes pumpkin, red or yellow yams or squash, carrots, or orange sweet potatoes; any other food made from roots or tubers such as white potatoes, taro, white or purple yams, cassava, or daikon

⁶ Includes any food made from legumes, such as beans, mung beans, soybeans, tofu, or nuts

⁷ Includes red meats, poultry, fish, shellfish, snake, snails, frog, rat, insects, liver, tripe, kidneys, and other organ meats or eggs.

⁸ Includes pumpkin, red or yellow yams or squash, carrots, or orange sweet potatoes; any green leafy vegetables, such as morning glory, basil, amaranth, and mustard greens; ripe mango, ripe papaya, jackfruit, or durian; red meats, poultry, fish, shellfish, snake, snails, frog, rat, insects, liver, tripe, kidneys, and other organ meats or eggs.

WHO recommends the introduction of solid food to infants around the age of six months because by that age, breast milk by itself is no longer sufficient to maintain a child's optimal growth. Among Cambodian children, cereal, grains, and some type of solid and semisolid food is introduced even before six months of age. Breastfeeding children consume bread, cereals, or grains and semisolid or solid types of food early in life, with almost one-third of infants under six months of age consuming the above foods. About two-thirds of children consume cereals, grains, and solid or semisolid foods by 6-7 months of age. The percentage receiving cereal, grains, and solid or semisolid foods increases gradually; by age two most children are fed solid or semisolid foods.

In addition to the above foods, by age three, half of the children consume fruits and vegetables, meat, fish, and poultry, and foods rich in vitamin A. However, consumption of tubers and roots, beans and legumes, and oils and fats is lower in Cambodian children. As expected, the percentage of children who consumed supplements at an earlier age is higher for nonbreastfeeding children than for breastfeeding children.

Frequency of food supplementation

The nutritional requirements of young children are more likely to be met if they are fed a variety of foods. In the CDHS 2000, interviewers read a list of specific foods and asked the mother to report the number of times during the last seven days their child had consumed each food. For any food consumed at least once in the last seven days, the mother was also asked for the number of times the child had consumed the food in the 24 hours preceding the survey. Tables 13.5 and 13.6 show the mean number of days and the mean number of times children under age three consumed specific foods in the 7 days before the survey and in the 24 hours before the survey, by age and breastfeeding status.

Table 13.5 shows the frequency of foods consumed by children under three years of age during the 7 days preceding the survey. Foods made from grains were consumed most often (5 times a week), followed by meat, fish, and poultry. Green leafy vegetables, fruits such as mango and papaya, and other vegetables are consumed only once a week. Consumption of other foods such as roots, tubers, and organ meat is negligible in children less than three years of age. As expected, older children consumed supplements more frequently than younger children, and nonbreastfeeding children more frequently than breastfeeding children.

Table 13.6 shows the frequency of foods consumed by children in the 24 hours preceding the survey. Children consumed grains, bread, or cereal twice a day and meat, fish, or poultry only once a day. There is moderate consumption of green leafy vegetables, fruits such as mango and papaya, and other vegetables. Consumption of other foods such as roots, tubers, and organ meat is negligible in children less than three years of age. Frequency of consumption of the above foods is slightly higher in nonbreastfeeding children.

Table 13.5 Frequency of foods received by youngest children in preceding 7 days

Mean number of days specific foods were received by youngest children under three years of age in the 7 days preceding the interview, by breastfeeding status and child's age, Cambodia 2000

Child's age in months	Solid/semisolid food											Number of children			
	Infant formula	Tinned/powdered/sweetened/condensed milk	Fruit juice	Other liquids ¹	Grains/bread/cereal ²	Pumpkin squash/ ³ carrots	Roots/ ⁴ tubers	Beans/ ⁵ legumes	Green leafy vege- ⁶ tables	Mango/ ⁷ papaya/ ⁸ durian	Other fruits/vege- ⁸ tables		Meats/ ⁹ fish/ ⁹ poultry	Organ meats/ ⁹ eggs	Oils/ ⁹ fats/ ⁹ coconut milk
BREASTFEEDING CHILDREN															
<2	0.1	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	230
2-3	0.3	0.2	0.1	0.1	0.9	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	293
4-5	0.1	0.1	0.3	0.3	2.1	0.1	0.1	0.1	0.2	0.1	0.3	0.5	0.1	0.1	269
6-7	0.2	0.1	0.2	0.6	4.4	0.3	0.2	0.2	0.4	0.3	1.0	1.6	0.3	0.5	248
8-9	0.1	0.1	0.6	0.8	5.7	0.6	0.4	0.3	0.9	0.6	1.1	2.5	0.6	0.7	246
10-11	0.2	0.1	0.7	0.9	5.9	0.7	0.6	0.4	1.4	0.8	1.6	3.3	0.6	1.1	241
12-15	0.1	0.2	1.0	1.2	6.3	1.2	0.9	0.7	1.7	1.2	2.2	4.1	0.9	1.7	406
16-19	0.0	0.1	1.2	1.1	6.5	1.2	0.7	0.6	1.9	1.1	2.2	4.1	0.7	1.5	273
20-23	0.1	0.1	1.1	1.0	6.5	1.3	1.0	0.6	2.2	1.3	2.4	4.6	0.9	1.7	215
24-27	0.1	0.2	1.2	1.2	6.4	1.4	1.2	0.8	2.3	1.7	2.4	4.3	1.3	2.1	185
28-31	0.2	0.3	1.4	1.3	6.9	1.7	1.1	0.9	2.2	1.3	3.1	4.8	1.5	1.9	58
32-35	0.2	0.1	1.6	1.2	6.8	1.7	1.3	0.8	2.3	1.6	2.2	4.4	1.1	2.0	67
<4	0.2	0.1	0.1	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	523
4-5	0.1	0.1	0.3	0.3	2.1	0.1	0.1	0.1	0.2	0.1	0.3	0.5	0.1	0.1	269
6-9	0.2	0.1	0.4	0.7	5.1	0.4	0.3	0.3	0.7	0.4	1.1	2.0	0.5	0.6	495
Total <36	0.1	0.1	0.7	0.7	4.6	0.7	0.5	0.4	1.1	0.7	1.4	2.6	0.6	1.0	2,732
NONBREASTFEEDING CHILDREN															
12-15	1.2	0.7	0.9	1.4	6.1	1.5	0.7	1.2	1.5	1.5	2.4	4.2	1.2	1.7	56
16-19	0.7	0.5	0.9	1.5	6.2	1.5	1.0	1.0	2.0	1.4	2.3	4.6	1.6	2.2	100
20-23	0.2	0.5	1.5	1.4	6.5	1.8	0.8	1.0	2.2	1.5	2.7	4.7	1.0	2.1	152
24-27	0.2	0.2	1.4	1.4	6.6	1.5	1.1	0.8	2.3	1.6	2.6	4.9	1.2	2.3	244
28-31	0.2	0.2	1.3	1.6	6.5	1.4	1.0	1.0	2.3	1.9	2.7	4.6	1.4	2.2	253
32-35	0.1	0.2	1.4	1.8	6.8	1.6	1.0	0.8	2.6	1.6	2.7	5.4	1.2	2.4	227
Total <36	0.4	0.4	1.3	1.5	6.5	1.6	0.9	0.9	2.2	1.6	2.6	4.7	1.2	2.2	1,087

¹ Does not include plain water

² Includes rice, rice flour, maize, bread, wheat, cakes, porridge, or noodles

³ Includes pumpkin, red or yellow yams or squash, carrots, or orange sweet potatoes

⁴ Includes any food made from roots or tubers such as white potatoes, taro, white or purple yams, cassava, or daikon

⁵ Includes any food made from legumes such as beans, mung beans, soybeans, tofu, or nuts

⁶ Includes any green leafy vegetables such as morning glory, basil, amaranth, or mustard greens

⁷ Includes:ripe mango, ripe papaya, jackfruit, or durian

⁸ Includes any other fruit or vegetables such as bananas, green beans, tomatoes, watermelon, or pineapple

⁹ Includes red meats, poultry, fish, shellfish, snake, snails, frog, rat, or insects

Table 13.6. Frequency of foods consumed by youngest children in preceding 24 hours

Mean number of times specific foods were consumed by youngest children under three years of age in the 24 hours preceding the survey, by breastfeeding status and child's age, Cambodia 2000

Child's age in months	Solid/semisolid food ¹											Number of children			
	Infant formula	Tinned/powdered/sweetened condensed milk	Fruit juice	Other liquids ²	Grains/bread ³ /cereal ⁴	Pumpkin squash ⁴ /carrots ⁴	Roots/ ⁵ tubers	Beans/ ⁶ legumes	Green leafy vege- ⁷ tables	Mango/papaya ⁸ /durian	Other fruits/vege- ⁹ tables		Meats/fish/ ¹⁰ poultry	Organ meats/eggs	Oils/fats/coconut milk
BREASTFEEDING CHILDREN															
<2	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	230
2-3	0.1	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	293
4-5	0.1	0.0	0.1	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	269
6-7	0.1	0.1	0.1	0.2	1.6	0.1	0.1	0.1	0.2	0.1	0.4	0.6	0.1	0.2	248
8-9	0.1	0.0	0.2	0.3	2.1	0.2	0.2	0.1	0.3	0.3	0.4	0.9	0.2	0.3	246
10-11	0.1	0.0	0.3	0.4	2.6	0.3	0.2	0.1	0.5	0.3	0.6	1.3	0.2	0.5	241
12-15	0.1	0.1	0.4	0.5	2.9	0.4	0.3	0.3	0.7	0.4	0.8	1.7	0.4	0.6	406
16-19	0.0	0.0	0.4	0.4	2.9	0.4	0.2	0.2	0.7	0.5	0.9	1.6	0.2	0.7	273
20-23	0.0	0.0	0.4	0.3	2.9	0.5	0.3	0.2	0.8	0.5	0.9	1.7	0.3	0.6	215
24-27	0.0	0.0	0.5	0.5	3.2	0.6	0.5	0.3	1.0	0.7	1.0	1.7	0.5	0.9	185
28-31	0.1	0.1	0.6	0.7	3.7	0.7	0.4	0.4	1.0	0.6	1.5	2.4	0.6	0.9	58
32-35	0.1	0.1	0.6	0.5	3.6	0.9	0.6	0.3	0.9	0.6	0.9	1.9	0.4	0.9	67
<4	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	523
4-5	0.1	0.0	0.1	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	269
6-9	0.1	0.1	0.2	0.2	1.9	0.2	0.1	0.1	0.2	0.2	0.4	0.8	0.2	0.2	495
Total <36	0.1	0.0	0.3	0.3	2.0	0.3	0.2	0.1	0.4	0.3	0.5	1.0	0.2	0.4	2,732
NONBREASTFEEDING CHILDREN															
12-15	0.7	0.4	0.4	0.5	2.9	0.5	0.2	0.5	0.7	0.6	0.8	1.7	0.4	0.9	56
16-19	0.5	0.3	0.4	0.8	3.3	0.6	0.5	0.5	0.9	0.6	1.1	2.0	0.8	0.9	100
20-23	0.1	0.2	0.5	0.5	3.3	0.6	0.3	0.5	0.8	0.6	1.0	1.9	0.4	0.8	152
24-27	0.1	0.1	0.5	0.5	3.4	0.6	0.4	0.3	0.9	0.6	1.1	2.1	0.5	0.9	244
28-31	0.2	0.1	0.5	0.6	3.4	0.6	0.4	0.3	1.0	0.7	1.1	1.9	0.5	0.9	253
32-35	0.1	0.0	0.5	0.7	3.3	0.6	0.3	0.3	1.0	0.6	1.1	2.3	0.4	0.9	227
Total <36	0.3	0.2	0.5	0.6	3.3	0.6	0.4	0.4	0.9	0.6	1.0	2.0	0.5	0.8	1,087

Note: Breastfeeding status refers to last 24 hours

¹ Refers to the day and night preceding the interview

² Does not include plain water

³ Includes rice, rice flour, maize, bread, wheat, cakes, porridge, or noodles

⁴ Includes pumpkin, red or yellow yams or squash, carrots, or orange sweet potatoes

⁵ Includes any food made from roots or tubers such as white potatoes, taro, white or purple yams, cassava, or daikon

⁶ Includes any food made from legumes such as beans, mung beans, soybeans, tofu, or nuts

⁷ Includes any green leafy vegetables such as morning glory, basil, amaranth, mustard greens

⁸ Includes ripe mango, ripe papaya, jackfruit, or durian

⁹ Includes any other fruit or vegetables such as bananas, green beans, tomatoes, watermelon, or pineapple

¹⁰ Includes red meats, poultry, fish, shellfish, snake, snails, frog, rat, or insects

13.2 NUTRITIONAL STATUS OF CHILDREN

The nutritional status of young children is a comprehensive index that reflects the level of household, community, and national development. Malnutrition (inadequate nutrition) is a direct result of insufficient food intake, or repeated infectious diseases, or a combination of both. It can result in increased risk of illnesses and death.

In the CDHS 2000, anthropometric data on height and weight for children less than 5 years old and women age 15-49 were collected from 50 percent of the households sampled in the survey to evaluate their nutritional status. Their standing height (for children age 24 months and older) or recumbent length (for children under age 24 months) was measured using a height board. Electronic Seca scales were used to measure the weight of children. Height boards and electronic scales were supplied by UNICEF. Based on these measurements, three internationally accepted indices were constructed and are used to reflect the nutritional status of children:

- Height-for-age (stunting)
- Weight-for-height (wasting)
- Weight-for-age (underweight).

The assessment of nutritional status is based on the concept that in a well-nourished population, the distribution of children's height and weight at a given age will approximately follow a normal distribution. Since all populations have similar genetic potential for growth (Habicht et al., 1974), for comparative purposes, nutritional status has been determined using the International Reference Population defined by the U.S. National Center for Health Statistics (NCHS), as recommended by WHO and the U.S. Centers for Disease Control and Prevention (CDC). Children who fall below minus two standard deviations (-2SD) from the reference median are considered malnourished, and children who fall below minus three standard deviations (-3SD) from the reference median are considered severely malnourished. Since children's height and weight change with age, it is suggested that height and weight be related to age and that weight be related to height, taking the sex of the child into consideration. Each of the three indices measures different aspects of children's nutritional status.

The anthropometric index height-for-age reflects linear growth achieved pre- and postnatally with its deficits indicating long-term, cumulative effects of inadequate nutrition and health. Children who are below minus two standard deviations (-2SD) from the median of the reference population are considered short for their age, or stunted. Children who are below minus three standard deviations (-3SD) from the reference population median are severely stunted. Stunting of a child's growth may be the result of failure to receive adequate nutrition over a long period, or of sustained improper feeding practices, or of the effects of repeated episodes of illness. Height-for-age therefore represents a measure of the outcome of undernutrition in a population over a long period and does not vary appreciably with the season of data collection.

The weight-for-height index measures body mass in relation to body length. It describes a recent and severe process that has produced a substantial weight loss usually as a consequence of acute shortage of food or severe disease. Children whose weight-for-height is below minus two standard deviations (-2SD) from the median of the reference population are too thin for their height, or wasted, while those who measure below minus three standard deviations (-3SD) from the reference population median are severely wasted. Wasting represents the failure to receive adequate nutrition during the period immediately before the survey and usually shows marked

seasonal patterns associated with changes in food availability or disease prevalence. It may be the result of recent episodes of illness, particularly diarrhea, improper feeding practices, or acute food shortage.

Weight-for-age is a composite index of height-for-age and weight-for-height. It represents body mass relative to age. Children whose weight-for-age measures below minus two standard deviations (-2SD) from the median of the reference population are underweight for their age, while those whose measurements are below minus three standard deviations (-3SD) from the reference population median are severely underweight. Being underweight for one's age therefore could mean that a child is stunted or wasted or both stunted and wasted. In the absence of wasting, both weight-for-age and height-for-age reflect the long-term nutrition and health experience of the individual or population.

The CDHS 2000 measured and weighed all children born in the five years prior to the survey who were listed in the Household Questionnaire. Table 13.7 shows the percentage of children under five years classified as malnourished according to the background characteristics. The table also shows the nutritional status of children of noninterviewed mothers by whether or not the mother lives in the household. The following analysis focuses on the 3,372 children under five for whom complete and plausible anthropometric data were collected.¹

Chronic malnutrition among Cambodian children is high, with 45 percent of children moderately stunted and more than one in five children (21 percent) severely stunted (Table 13.7). The level of stunting increases rapidly with age from 15 percent among children under six months of age to about 50 percent among children age three years and older (Figure 13.1). There is little difference in the level of stunting by sex. First order births are least likely to be stunted, compared with children of birth order six or above. The length of the birth interval is inversely related to stunting. However, children with a birth interval of less than 24 months had the highest level of stunting (55 percent). As expected, rural children are more likely to be stunted than urban children, and children residing in Phnom Penh are much less likely to be stunted. Mother's education impacts children's nutritional status positively, with 35 percent of children of highly educated mothers stunted, compared with 51 percent of children of mothers with no education.

¹ Three percent of children are excluded because information on height or weight are missing and 6 percent because information on age, height, or weight is implausible.

Table 13.7 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, and percentage of children of noninterviewed mothers, and all children classified as malnourished, Cambodia 2000

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Per-centage below -3 SD	Per-centage below -2 SD	Mean Z-score (SD)	Per-centage below -3 SD	Per-centage below -2 SD	Mean Z-score (SD)	Per-centage below -3 SD	Per-centage below -2 SD	Mean Z-score (SD)	
Child's age in months										
<6	5.1	14.5	-0.4	1.9	9.0	-0.1	1.1	7.7	-0.4	351
6-9	4.4	23.5	-1.1	1.4	9.3	-0.4	6.1	20.2	-1.1	229
10-11	6.1	26.5	-1.1	2.5	20.0	-1.0	14.0	44.6	-1.7	104
12-15	14.0	36.6	-1.4	7.1	24.9	-1.2	10.8	49.4	-1.9	228
16-23	23.2	49.3	-2.0	5.1	21.5	-1.2	17.0	51.2	-2.0	340
24-35	22.3	50.4	-1.9	3.9	16.7	-1.1	17.1	55.0	-2.0	640
36-47	27.2	53.2	-2.1	4.2	14.8	-1.0	14.9	51.9	-2.0	734
48-59	27.6	54.5	-2.2	4.0	11.7	-0.9	12.3	51.8	-2.0	746
Child's sex										
Male	19.0	43.3	-1.7	3.9	15.4	-0.9	11.9	44.3	-1.8	1,735
Female	22.1	45.9	-1.8	3.9	14.6	-0.9	13.4	46.3	-1.8	1,637
Birth order²										
1	18.0	40.9	-1.7	3.8	15.6	-1.0	12.3	43.6	-1.8	611
2-3	20.1	44.2	-1.7	2.8	13.7	-0.8	11.5	42.8	-1.7	1,160
4-5	19.8	42.7	-1.7	4.2	14.3	-0.9	11.8	44.5	-1.8	744
6+	22.5	48.7	-1.8	4.9	17.1	-1.0	14.9	49.5	-1.9	773
Birth interval in months²										
First birth	18.0	40.8	-1.7	3.8	15.6	-1.0	12.3	43.6	-1.8	612
<24 months	31.3	55.3	-2.2	3.5	11.7	-0.9	17.0	52.2	-2.0	529
24-47 months	19.6	46.0	-1.8	3.6	15.4	-0.9	11.6	45.2	-1.8	1,488
48+ months	14.7	34.9	-1.4	4.4	16.1	-0.9	11.2	39.6	-1.6	660
Residence										
Urban	19.4	38.1	-1.6	3.3	12.6	-0.8	9.1	37.9	-1.6	484
Rural	20.7	45.7	-1.8	4.0	15.4	-0.9	13.2	46.5	-1.8	2,888
Region										
Banteay Mean Chey	11.7	28.9	-1.3	5.0	19.5	-1.1	10.5	39.5	-1.7	162
Kampong Cham	19.3	48.2	-1.8	5.2	15.6	-1.0	13.6	47.8	-1.9	464
Kampong Chhnang	19.4	45.9	-1.9	0.7	9.5	-0.9	9.9	46.1	-1.8	161
Kampong Spueu	17.4	44.5	-1.7	3.6	16.9	-1.0	13.7	44.0	-1.9	232
Kampong Thum	26.1	47.2	-1.7	10.2	24.5	-1.0	12.5	49.4	-1.9	150
Kandal	17.6	46.2	-1.9	1.1	11.8	-0.9	10.6	48.2	-1.9	301
Kaoh Kong	30.8	55.0	-2.2	3.9	14.7	-0.6	15.4	42.7	-1.8	40
Phnom Penh	17.0	25.6	-1.2	3.1	18.3	-0.9	8.0	35.0	-1.4	197
Prey Veang	27.4	51.2	-2.1	6.5	15.1	-1.0	17.5	56.8	-2.0	244
Pousat	20.0	46.3	-1.7	1.3	13.4	-1.0	12.4	46.3	-1.8	126
Svay Rieng	22.9	51.3	-1.8	4.9	13.0	-0.8	13.5	45.9	-1.7	125
Takaev	21.1	42.1	-1.6	4.8	17.2	-0.8	14.5	39.9	-1.6	218
Bat Dambang/ Krong Pailin	15.9	36.3	-1.4	5.7	21.1	-1.0	12.0	36.4	-1.6	240
Kampot/Krong Kaeb/ Krong Preah Sihanouk	26.0	43.4	-1.8	2.6	9.6	-0.5	12.6	39.8	-1.5	230
Preah Vihear/Stueng										
Traeng/Kracheh	22.9	51.0	-2.0	2.8	10.9	-0.9	13.2	47.0	-1.9	164
Mondol Kiri/Rotanak Kiri	33.4	55.0	-2.2	6.2	15.2	-0.9	19.0	54.0	-2.0	51
Siem Reab/Otdar Mean Chey	21.0	50.7	-2.0	0.8	10.6	-0.8	10.9	49.9	-1.8	266
Mother's education²										
No education	24.4	51.0	-1.9	4.7	15.7	-0.9	15.1	51.2	-1.9	1,067
Primary	19.4	42.6	-1.7	3.6	15.3	-0.9	12.1	42.7	-1.8	1,778
Secondary and higher	14.1	35.1	-1.4	2.6	12.6	-0.9	8.4	39.7	-1.5	463
Children of interviewed mothers	20.2	44.3	-1.7	3.8	15.0	-0.9	12.5	44.9	-1.8	3,288
Children of non-interviewed mothers										
Mother in household	*	*	*	*	*	*	*	*	*	20
Mother not in household	35.6	61.5	-2.2	8.2	15.0	-0.8	15.9	57.6	-1.9	64
Total	20.5	44.6	-1.8	3.9	15.0	-0.9	12.6	45.2	-1.8	3,372

Note: This table refers to de facto children. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

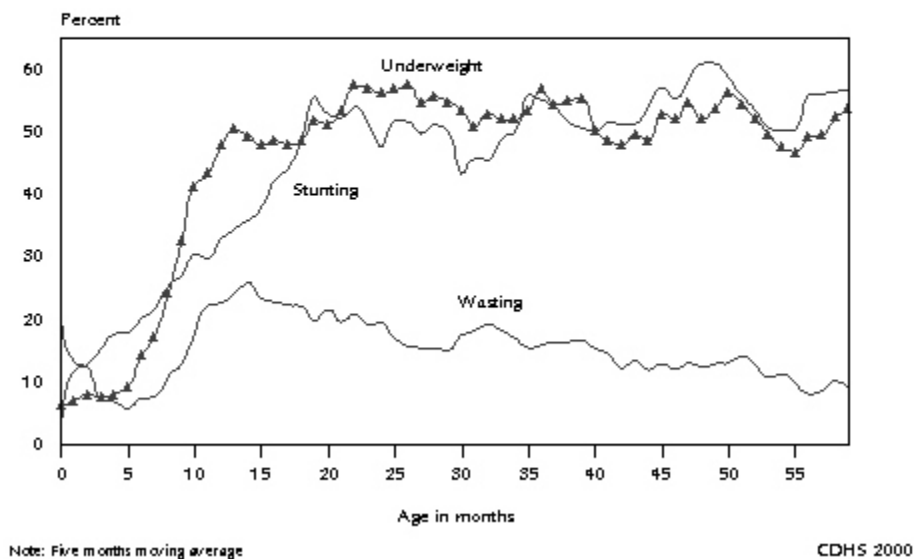
¹ Includes children who are below -3 standard deviations from the International Reference Population median

² Excludes children whose mothers were not interviewed

Fifteen percent of children under five years of age are wasted (thin for their height), and 4 percent are severely wasted. The proportion of wasted children is highest in the 12-15 month age group (Figure 13.1), which could indicate inadequate food supplementation during the weaning period and exposure to diseases. Wasting increases with birth order, as more children are likely to compete for a limited quantity of food, especially in poor households. Rural children are more likely to be wasted than urban children. Regional variation in the level of wasting is substantial. The level of wasting is highest in Kampong Thum (25 percent) and lowest in Kampong Chhnang. Mother's education has a positive impact on lowering wasting. Forty-five percent of children are underweight (low weight-for-age), and 13 percent are severely underweight. Differentials by background characteristics are similar to those discussed for stunting.

Children whose mother is not present in the household may not receive the same quality of care and nurturance than if they lived with their biological mother. Comparing these two groups of children may therefore be of interest. Children of mothers who are not living in the household are more likely to be stunted and underweight than children of interviewed mothers. There is no difference in weight-for-height between these two groups of children for moderately wasted children. However, children of mothers who are not living in the household were more than twice as likely to be severely wasted than children of interviewed mothers.

Figure 13.1 Nutritional Status of Children Under Five Years by Age in Months



13.3 NUTRITIONAL STATUS OF WOMEN

In the CDHS 2000, data were collected on the height and weight of women age 15-49 in every second household sampled. Women's nutritional status is important both as an indicator of overall health and as a predictor of pregnancy outcome for both mother and child. Two indices of women's nutritional status are presented in Table 13.8: height and body mass index (BMI). Maternal height is a measure of past nutritional status and reflects in part the cumulative effect of social and economic outcomes on access to nutritional foods during childhood and adolescence. It can be used to predict the risks associated with difficult deliveries since small stature is often associated with small pelvis size and a greater likelihood of obstructed labor. Short stature is also correlated with low birth weight in infants, high risk of stillbirths, and high rates of miscarriage. A woman is considered to be at nutritional risk if her height is in the range of 140 to 150 centimeters. The BMI, which utilizes both height and weight and provides a better measure of thinness than weight alone, is defined as weight in kilograms divided by the square of the height in meters (kg/m^2). The WHO Expert Committee on Physical Growth has suggested the following classifications:

- Mild underweight (BMI = 17-18.49)
- Moderate underweight (BMI = 16-16.99)
- Severe underweight (BMI <16)

These three groups are considered to have a chronic energy deficiency (CED). A BMI of more than 25 is considered to be overweight.

To avoid bias in the measurement of women's nutritional status, pregnant women and women who had given birth in the two months preceding the survey were excluded from the calculation of weight and body mass measures.

The mean height of Cambodian women is 153 centimeters (Table 13.8). About 6 percent of women are shorter than 145 centimeters. Rural women are shorter than their urban counterparts. The percentage of women whose height was below 145 centimeters is highest in Mondol Kiri/Rotanak Kiri and lowest in Phnom Penh. Women who have attended at least secondary school are less likely to be of short stature than women with little or no education.

One in five women falls below the cutoff of 18.5, indicating that the level of chronic energy deficiency is relatively high in Cambodia. About 1 in 15 women have a BMI of more than 25 and thus can be considered overweight. In general, very young women (15-19) and rural women are more likely than other women to suffer from chronic energy deficiency.

Table 13.8 Nutritional status of women by background characteristics

Among women age 15-49, mean height and percentage of women under 145 centimeters, mean body mass index (BMI), and percentage of women whose BMI (kg/m²) is below 18.5 and above 25.0, mean DHS Z-score, and percentage wasted, by background characteristics, Cambodia 2000

Background characteristic	Height			BMI (kg/m ²)				Mean DHS Z-score	Percentage below -2 SD	Number of women ¹
	Mean	Percentage <145 cm	Number of women	Mean	Percentage <18.5	Percentage >25.0	Number of women			
Age										
15-19	152.1	8.0	1,699	19.9	25.4	1.6	1,633	-1.0	9.3	1,622
20-24	152.9	3.1	952	20.4	17.6	1.8	817	-0.8	5.5	812
25-29	153.3	3.9	1,000	20.6	17.6	5.2	826	-1.1	12.5	825
30-34	153.5	4.8	1,110	20.9	18.9	7.5	986	-1.2	18.5	982
35-39	152.6	6.5	1,080	21.0	19.5	9.9	988	-1.5	30.6	979
40-44	153.0	4.5	904	21.0	20.2	11.3	866	-1.4	26.4	864
45-49	152.9	5.6	686	21.1	21.3	11.6	681	-1.3	27.0	676
Residence										
Urban	153.4	3.8	1,243	21.3	16.1	9.6	1,164	-0.9	10.5	1,159
Rural	152.8	5.8	6,188	20.5	21.6	5.7	5,633	-1.2	19.1	5,600
Region										
Banteay Mean Chey	153.6	5.3	323	21.0	20.1	9.6	294	-1.0	15.6	293
Kampong Cham	153.1	4.1	943	20.5	21.1	7.5	843	-1.2	21.8	838
Kampong Chhnang	151.9	8.9	282	20.4	24.9	7.2	254	-1.3	21.6	251
Kampong Spueu	151.7	7.4	373	20.2	23.3	3.1	336	-1.4	22.7	332
Kampong Thum	154.2	3.4	373	20.4	19.7	5.0	342	-1.2	15.0	341
Kandal	152.5	5.7	740	20.3	25.0	5.2	690	-1.3	21.9	685
Kaoh Kong	152.8	4.1	74	20.9	14.8	7.7	66	-1.1	12.4	66
Phnom Penh	154.4	1.9	745	21.0	20.2	9.3	710	-1.0	10.9	709
Prey Veaeng	152.6	7.2	611	20.5	22.4	4.4	552	-1.2	17.8	552
Pousat	152.4	7.0	212	20.7	15.9	4.0	183	-1.2	16.2	183
Svay Rieng	152.0	9.1	347	20.5	20.2	4.5	324	-1.3	18.2	320
Takaev	152.3	4.6	480	20.3	25.8	5.3	451	-1.3	22.4	449
Bat Dambang/ Krong Pailin	153.3	3.5	547	21.2	10.2	7.4	496	-1.0	10.3	495
Kampot/Krong Kaeb/ Krong Preah Sihanouk	153.0	5.4	496	21.0	16.3	9.3	459	-1.0	14.0	457
Preah Vihear/Stueng Traeng/Kracheh	152.3	6.7	293	20.5	21.7	4.9	266	-1.2	18.5	265
Mondol Kiri/ Rotanak Kiri	148.7	24.5	80	20.3	22.6	2.9	69	-1.3	20.6	65
Siem Reab/Otdar Mean Chey	152.7	5.4	514	20.5	21.3	5.1	463	-1.2	17.7	460
Education										
No education	152.4	7.2	2,070	20.4	22.0	5.5	1,860	-1.3	22.1	1,842
Primary	152.8	5.2	4,164	20.7	19.7	6.7	3,827	-1.1	17.1	3,809
Secondary and higher	153.7	3.3	1,197	20.5	21.5	6.5	1,110	-1.1	11.9	1,109
Total	152.9	5.5	7,431	20.6	20.7	6.4	6,797	-1.2	17.6	6,760

¹ Excludes pregnant women and women who had a birth in the preceding two months.

13.4 MICRONUTRIENT STATUS

Causes and consequences of early childhood deficiencies have implications for later life and may be present as risk factors for future generations. Starting with the fetus, iodine deficiency disorder (IDD) may cause brain damage or stillbirth. Severe iron-deficiency anemia during pregnancy may even place a woman's life at risk during childbirth. Iron-deficiency anemia and vitamin A deficiency (VAD) may also have significant implications for the newborn infant born with low stores. VAD may increase morbidity and mortality risk and affect vision, while anemia and IDD may lead to cognitive deficits.

13.4.1 Iron-deficiency anemia

Iron deficiency is the most common micronutrient deficiency in the world, affecting more than 3.5 billion people in the developing world (ACC/SCN, 2000). Iron-deficiency anemia occurs when iron stores are exhausted and the supply of iron to the tissues is compromised. The prevalence of anemia, defined by low hemoglobin or hematocrit, is commonly used to assess the severity of iron deficiency in a population. The hemoglobin cutoff used to define anemia in pregnant women and pre-school children (6 months to 5 years) is 11 grams per deciliter (g/dl) of hemoglobin. The cutoff for nonpregnant women (including lactating women) is 12 g/dl of hemoglobin. Iron-deficiency anemia is a severe stage of iron deficiency in which the level of hemoglobin (or hematocrit) falls below the cutoffs.

Iron-deficiency anemia is a major threat to safe motherhood: it contributes to low birth weight, lowered resistance to infection, poor cognitive development, and decreased work capacity. In children, iron-deficiency anemia is associated with impaired cognitive performance, motor development, coordination, language development, and scholastic achievement. Anemia increases morbidity from infectious diseases because it adversely affects several immune mechanisms.

It is estimated that 90 percent of all anemic individuals are found in developing countries (DeMayer and Tegman, 1985). Among the developing countries, the highest prevalence is noted in South Asia. For Cambodia, representative data on iron-deficiency anemia is not available. However, studies on Cambodian refugees have found high levels of iron deficiency (65 percent) defined as serum ferritin concentration less than 10 micrograms per liter and iron-deficiency anemia (37 percent) with hemoglobin levels less than 11 g/dl (Dickson and Morison, 1992). Hematologic evaluations in Cambodian children have also indicated prevalence of genetic disorders such as Hemoglobin E trait, beta-Thalassemia and alpha-Thalassemia (Hurst et al, 1983). Although genetic disorders, hemorrhage and chronic disease, malaria, and parasitic infections have been identified as other causes of anemia, nutritional deficiency, primarily due to lack of bioavailable dietary iron, accounts for most cases.

Hemoglobin testing is the primary method of anemia diagnosis. The CDHS 2000 included direct measurement of hemoglobin levels in a subsample of one-fourth of all CDHS households for children (6-59 months) and women (15-49 years).

The HemoCue system was used in the CDHS 2000 for hemoglobin testing. The HemoCue instrument is a special purpose photometer designed specifically for the determination of hemoglobin levels using the hemaglobinazide method. A dry reagent layer coats the inside of a disposable self-filling microcuvette. When the tip of the microcuvette is placed into a drop of blood (a drop of capillary blood is taken from a person's fingertip or heel), the fluid moves up into the microcuvette and dissolves the reagents. The red blood cells (RBCs) are first lysed by the detergent (deoxycholate) and the hemoglobin is released to react with sodium nitrite and then with sodium azide to form the pigment hemoglobinazide. When the microcuvette containing the sample is inserted in the cuvette holder, the instrument measures the amount of light that passes through the sample. This results in an extremely reliable hemoglobin measurement.

Prevalence of anemia in children

Table 13.9 shows anemia levels for children 6-59 months. A total of 1,461 children were tested for anemia. Almost two-thirds (63 percent) of children suffer from anemia. This is similar to the level of anemia found in other South Asian countries (ACC/SCN, 2000). However, severe anemia (2 percent) in Cambodian children is lower than other countries in the region. About one-third of children have mild and moderate levels of anemia, respectively.

Table 13.9 Prevalence of anemia in children

Percentage of children age 6-59 months who are anemic and percentage who have mild, moderate, and severe anemia, by level of hemoglobin in the blood and background characteristics, Cambodia 2000

Background characteristic	Percentage of children who are anemic	Percentage of children with anemia			Number
		Severe (below 7.0 g/dl)	Moderate (7.0-9.9 g/dl)	Mild (10.0-10.9 g/dl)	
Age in months					
6-9	84.6	1.8	53.2	29.5	110
10-11	89.6	6.9	58.1	24.6	47
12-15	81.6	5.0	47.8	28.7	121
16-23	77.8	2.8	45.1	29.8	166
24-35	59.6	1.8	27.6	30.1	302
36-47	52.9	0.9	20.2	31.9	373
48-59	54.6	1.3	20.6	32.7	344
Sex					
Male	65.7	2.5	33.8	29.4	748
Female	61.1	1.6	27.2	32.3	713
Birth order¹					
1	64.3	2.4	31.0	30.8	270
2-3	63.7	2.1	33.2	28.4	488
4-5	65.3	1.9	30.8	32.6	331
6+	61.0	1.6	28.9	30.4	331
Birth interval in months¹					
<24	64.3	2.4	31.1	30.8	271
24-47	71.7	3.0	34.1	34.6	235
48+	61.5	1.6	30.5	29.4	650
	60.7	1.6	30.7	28.4	266
Residence					
Urban	57.3	2.3	20.4	34.6	196
Rural	64.4	2.0	32.2	30.2	1,265
Region					
Banteay Mean Chey	61.8	1.1	35.9	24.7	80
Kampong Cham	73.2	2.4	39.1	31.6	199
Kampong Chhnang	67.1	1.6	37.9	27.6	73
Kampong Spueu	75.7	2.8	36.3	36.5	100
Kampong Thum	78.7	4.0	31.3	43.5	85
Kandal	58.3	1.2	21.0	36.1	134
Kaoh Kong	62.5	0.7	25.3	36.5	19
Phnom Penh	41.8	0.0	18.5	23.3	76
Prey Veaeng	58.8	4.4	32.8	21.6	107
Pousat	69.2	0.8	39.8	28.7	61
Svay Rieng	68.1	0.0	22.9	45.2	43
Takaev	65.0	2.5	40.1	22.5	94
Bat Dambang/ Krong Pailin	36.0	0.0	10.0	26.1	97
Kampot/Krong Kaeb/ Krong Preah Sihanouk	58.3	1.4	16.2	40.7	77
Preah Vihear/Stueng Traeng/Kracheh	54.1	1.7	26.0	26.4	66
Mondol Kiri/Rotanak Kiri	67.1	7.6	38.2	21.3	23
Siem Reab/Otdar Mean Chey	72.2	2.5	37.8	31.8	128
Mother's education¹					
No education	70.1	2.5	35.8	31.8	465
Primary	62.5	2.0	29.3	31.1	766
Secondary or higher	52.1	0.5	27.4	24.1	197
Children of interviewed mothers					
	63.6	2.0	31.2	30.3	1,420
Children of noninterviewed mothers					
Mother living in the household	*	*	*	*	7
Mother not living in the household	(60.1)	(3.3)	(8.6)	(48.2)	34
Total	63.4	2.0	30.6	30.8	1,461

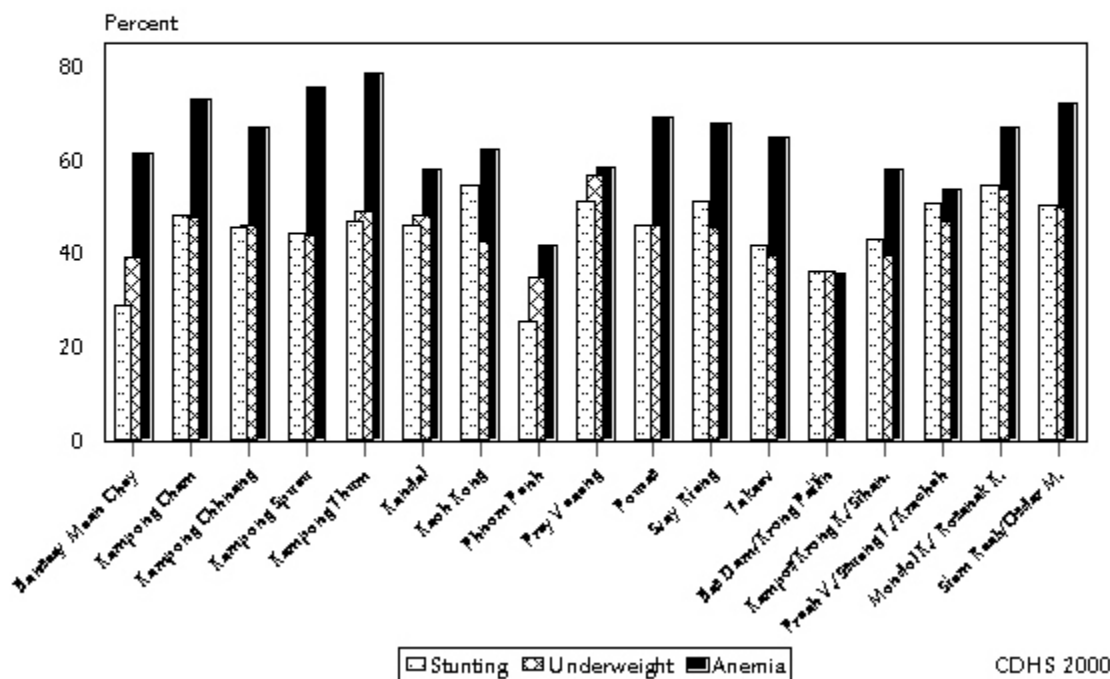
Note: This table refers to de facto children. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

¹ Excludes children whose mother was not interviewed

Children under age two were more likely to be anemic than older children. High levels of anemia (90 percent) are found in the age group of 10-11 months. In the same age group, the prevalence of moderate and severe anemia is also the highest.

Prevalence of moderate-to-severe anemia is greater among males than among females. As with wasting, the rate of anemia is highest among children living in the central region of Kampong Thum. Levels of anemia and anthropometric measures across regions are shown in Figure 13.2. Stunting and underweight is higher in areas with high prevalence of anemia and vice versa. In general, children residing in rural areas have higher levels of anemia; however, mild and severe anemia are slightly higher among children from urban areas. There is substantial difference in anemia rates among children by mother's education. Children of highly educated mothers have lower levels of anemia than children of mothers with no education.

Figure 13.2 Anemia and Nutritional Status of Children Under Five Years by Region



CDHS 2000

Prevalence of anemia in women and iron supplementation during pregnancy

Table 13.10 shows anemia levels among women 15-49 years of age interviewed in the CDHS 2000. Fifty-eight percent of women in Cambodia have some degree of anemia. About 13 percent have moderate and 1 percent have severe forms of anemia.

Age was associated with anemia levels, with women age 45-49 being more anemic than younger women. Pregnant women providing iron to the developing fetus are at greater risk of anemia than nonpregnant women. As expected, pregnant and lactating women had higher levels

Table 13.10 Prevalence of anemia in women

Percentage of women age 15-49 years who are anemic and percentage who have mild, moderate, and severe anemia, by level of hemoglobin in the blood and background characteristics, Cambodia 2000

Background characteristic	Percentage of women who are anemic	Percentage of women with anemia			Number
		Severe (below 7.0 g/dl)	Moderate (7.0-9.9 g/dl)	Mild (10.0-11.9 g/dl)	
Age					
15-19	57.7	0.4	8.4	48.9	798
20-24	57.0	1.1	13.3	42.5	460
25-29	54.2	0.6	12.4	41.2	455
30-34	57.1	2.2	12.6	42.2	566
35-39	58.7	2.0	16.1	40.5	540
40-44	57.9	1.4	13.0	43.5	430
45-49	62.7	1.6	16.1	45.0	385
Parity					
No births	56.6	0.6	9.2	46.8	1,257
1	60.2	1.3	13.4	45.5	360
2-3	55.4	1.8	13.0	40.6	786
4-5	58.0	0.9	13.3	43.9	613
6+	61.5	2.4	18.4	40.7	618
Pregnancy and breastfeeding					
Pregnant	66.4	4.3	35.2	26.9	209
Breastfeeding	66.1	2.6	16.8	46.7	680
Both pregnant and breastfeeding	(53.0)	(3.1)	(20.7)	(29.2)	22
Neither pregnant nor breastfeeding	55.1	0.7	9.9	44.5	2,722
Residence					
Urban	51.2	0.6	6.5	44.2	619
Rural	59.1	1.4	14.0	43.7	3,015
Region					
Banteay Mean Chey	65.4	1.5	15.3	48.6	172
Kampong Cham	58.2	2.5	15.7	40.0	487
Kampong Chhnang	51.4	0.0	11.2	40.2	148
Kampong Spueu	59.6	3.0	15.9	40.7	184
Kampong Thum	66.8	1.4	16.4	49.0	177
Kandal	54.2	0.5	4.7	49.0	346
Kaoh Kong	44.4	1.0	5.8	37.7	39
Phnom Penh	52.6	0.4	5.7	46.5	337
Prey Veang	54.6	0.5	13.6	40.5	311
Pousat	63.3	1.3	18.8	43.2	104
Svay Rieng	60.2	0.5	13.4	46.3	164
Takaev	64.6	2.4	16.9	45.3	237
Bat Dambang/ Krong Pailin	47.5	0.9	10.5	36.2	267
Kampot/Krong Kaeb/ Krong Preah Sihanouk	51.4	1.0	8.9	41.5	224
Preah Vihear/Stueng	60.1	1.2	10.3	48.5	140
Traeng/Kracheh	63.0	2.9	22.0	38.1	40
Mondol Kiri/Rotanak Kiri	63.0	2.9	22.0	38.1	40
Siem Reab/Otdar	69.2	1.6	19.5	48.1	258
Mean Chey	69.2	1.6	19.5	48.1	258
Education					
No education	62.1	2.4	17.9	41.9	1,013
Primary	57.8	1.0	11.6	45.2	2,056
Secondary or higher	49.9	0.5	7.3	42.1	565
Total	57.8	1.3	12.7	43.8	3,634

Note: Figures in parentheses are based on 25-49 unweighted cases.
 For pregnant women, 10.0-10.9 g/dl is classified as mild anemia, 11.0 g/dl or more is not anemic.

of anemia than nonpregnant, nonlactating women. As was the situation with children, anemia is higher among women living in rural areas than in urban areas. Women with little or no education also had high levels of anemia (58 percent and 62 percent, respectively) compared with women with secondary or higher education (50 percent).

Figure 13.3 illustrates prevalence of anemia in children and women by region. As with the children, anemia levels in women are also highest in Kampong Thum and Siem Reab/Otdar Mean Chey and lowest in Kampong Chhnang and Bat Dambang/Krong Pailin. The pattern of anemia prevalence is similar for women and children for other regions, suggesting a cluster/regional effect for anemia deficiency. Differences in anemia levels could be due to dietary habits or food availability in a given region.

Figure 13.3 Anemia in Children and Women by Region

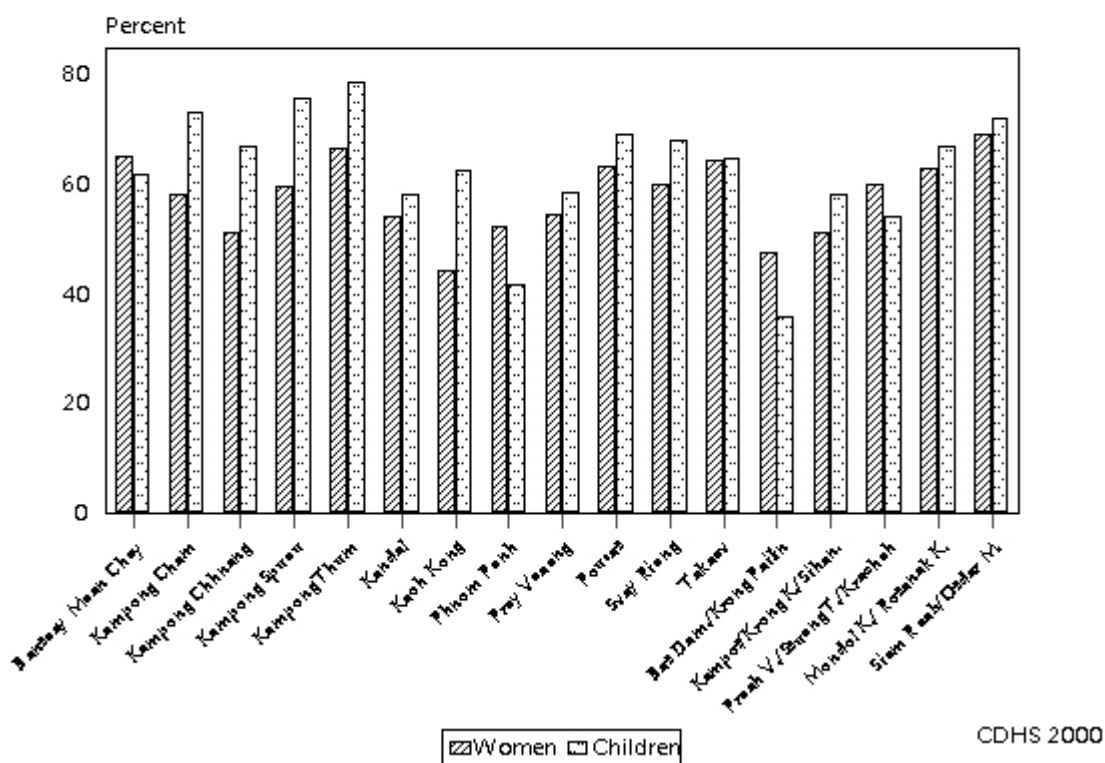


Table 13.11 shows anemia in children by severity of anemia in women. Out of the 1,413 children who were tested for hemoglobin levels, anemia was highest (87 percent) among children with severely anemic mothers. About three-fourths of the anemic children had mothers who were moderately anemic. Mild anemia in mothers is also related to high levels of anemia in children (65 percent).

Pregnant women are the highest risk group because the gap between the requirements for iron and intake during pregnancy cannot be filled by diet alone. This is the group most in need of supplementation. As shown in Table 13.13, about one in six women took iron supplements during the first two months of pregnancy. Only 2 percent consumed iron supplements in the third month of the first trimester. The percentage of women who took iron supplements after three months of gestation is low (2.4 percent).

Table 13.11 Prevalence of anemia in children by severity of anemia in the mother

Percentage of children age 6-59 months who are anemic and percentage who have mild, moderate, and severe anemia, by level of hemoglobin in the blood and severity of anemia in the mother, Cambodia 2000

Severity of anemia in mother	Percentage of children who are anemic	Percentage of children with anemia			Number ¹
		Severe (below 7.0 g/dl)	Moderate (7.0-9.9 g/dl)	Mild (10.0-10.9 g/dl)	
Percentage of women who are anemic	68.2	2.6	35.8	29.9	872
Percentage of women with anemia					
Severe (below 7.0 g/dl)	(86.8)	(0.4)	(53.2)	(33.2)	41
Moderate (7.0-9.9 g/dl)	72.6	3.1	44.8	24.7	237
Mild (10.0-11.9 g/dl)	65.1	2.5	30.9	31.7	594
Total ²	63.5	2.0	31.1	30.3	1,413

Note: This tables refers to de facto children. Figures in parentheses are based on 25-49 unweighted cases.
¹ Children with hemoglobin data born 6-59 months before the survey with mother with hemoglobin data
² Mother with hemoglobin data with children with hemoglobin data born 6-59 months before the survey

13.4.2 Vitamin A

Vitamin A is an essential micronutrient for the normal functioning of the visual system, growth and development, maintenance of epithelial cellular integrity, immune function, and reproduction. VAD occurs when body stores are depleted to the extent that physiological functions are impaired. At first, the integrity of epithelial barriers are impaired and the immune function system becomes compromised, followed by impairment of the visual system. Consequently, there is increased severity of infections and an increased risk of death, especially among children. Improving the vitamin A status of young children reduces mortality rates. VAD is linked more to the nature of foods available and feeding practices than to geochemical or other conditions affecting the whole population of geographic areas.

Table 13.12 shows the percentage of children who consumed foods rich in vitamin A in the seven days preceding the survey. More than three-fourths of children consumed foods rich in vitamin A, whereas supplements were consumed by only 29 percent.

Consumption of foods rich in vitamin A and supplements increased with age. Children who were not breastfed consumed more foods rich in vitamin A and supplements. Supplements were consumed the most in the capital city Phnom Penh (61 percent) and the neighboring regions of Kampong Chhnang (54 percent) and Kampong Spueu (48 percent), compared with other regions bordering Thailand and Vietnam. Children living in urban areas also consumed more vitamin A supplements. This may be due to differences in the delivery of vitamin A supplements. Mother's education is associated with increased intake of supplements; however, it is not related to consumption of foods rich in vitamin A among children.

Table 13.12 Vitamin A intake among children

Percentage of youngest living children under five who consumed foods rich in vitamin A in the seven days preceding the survey and percentage of all living children under five who received vitamin A supplements in the six months preceding the survey, by background characteristics, Cambodia 2000

Background characteristic	Consumed foods rich in vitamin A ¹	Number of youngest children under 5	Consumed vitamin A supplements	Number of all children under 5
Child's age in months				
<6	6.1	801	10.8	812
6-9	50.4	530	28.1	535
10-11	72.8	251	33.2	253
12-15	87.1	462	25.8	468
16-23	93.2	740	32.2	785
24-35	97.0	1,034	29.9	1,379
36-47	96.9	854	31.7	1,541
48-59	96.6	650	31.8	1,553
Child's sex				
Male	75.6	2,669	28.0	3,696
Female	76.5	2,654	29.1	3,631
Birth order				
1	72.6	914	32.0	1,401
2-3	76.5	1,929	29.7	2,665
4-5	75.7	1,228	26.6	1,625
6+	78.3	1,251	25.7	1,635
Breastfeeding status				
Breastfeeding	68.4	3,825	26.8	5,427
Not breastfeeding	95.7	1,498	33.6	1,899
Residence				
Urban	79.2	731	38.8	979
Rural	75.6	4,592	27.0	6,348
Region				
Banteay Mean Chey	66.9	277	43.5	383
Kampong Cham	72.7	725	28.5	1,009
Kampong Chhnang	82.5	218	54.2	326
Kampong Spueu	81.5	326	48.4	443
Kampong Thum	78.4	284	36.2	406
Kandal	76.5	470	17.9	641
Kaoh Kong	73.4	64	29.9	87
Phnom Penh	80.1	332	60.5	420
Prey Veang	78.2	421	24.2	533
Pousat	81.0	166	21.5	238
Svay Rieng	76.1	209	9.7	276
Takaev	77.3	401	38.1	539
Bat Dambang/ Krong Pailin	74.4	388	21.7	563
Kampot/Krong Kaeb/ Krong Preah Sihanouk	75.8	339	16.7	451
Preah Vihear/Stueng Traeng/Kracheh	73.5	238	6.3	335
Mondol Kiri/Rotanak Kiri Siem Reab/Otdar	80.4	77	10.6	115
Mean Chey	72.4	386	10.7	562
Mother's education				
No education	75.5	1,686	21.4	2,363
Primary	76.6	2,848	28.9	3,917
Secondary or higher	75.2	788	43.2	1,047
Mother's age at birth				
<20	71.5	439	29.2	662
20-24	74.5	1,048	30.4	1,582
25-29	74.7	1,440	30.2	2,017
30-34	78.5	1,201	27.3	1,619
35-49	78.2	1,195	25.3	1,446
Total	76.1	5,323	28.5	7,327

Note: Breastfeeding status refers to last 24 hours. Information on vitamin A supplements is based on mother's recall.

¹ Foods made from pumpkin, red or yellow yams or squash, carrots, orange sweet potatoes; any green leafy vegetables such as morning glory, basil, amaranth, mustard greens; ripe mango, ripe papaya, jackfruit, or durian; red meats, poultry, fish, shellfish, snake, snails, frog, rat, insects, liver, tripe, kidneys, and other organ meats, or eggs.

Table 13.13 shows that about one in ten women took vitamin A supplements postpartum (first two months after delivery). In general, women who were young, who were living in urban areas, and who gave birth to their first child consumed more vitamin A supplements.

Table 13.13 Micronutrients

Percentage of children under five who live in households using adequately iodized salt, and percentage of women who gave birth in the five years preceding the survey who took vitamin A in the first two months after delivery and who took iron supplements during the pregnancy, by background characteristics and breastfeeding status, Cambodia 2000

Background characteristic	Live in households using adequately iodized salt	Number of children under 5 ²	Percentage of women who took vitamin A postpartum	Percentage of women who took iron during pregnancy			Number of women ³
				1-59 days	60-89 days	90+ days	
Child's age in months							
<6	10.2	807	8.8	23.3	2.3	2.7	864
6-9	13.1	532	9.3	21.0	3.2	2.8	575
10-11	11.7	251	13.3	17.8	1.1	2.5	270
12-15	11.5	465	9.1	15.7	1.5	2.2	497
16-23	11.2	779	8.3	13.5	0.5	2.7	778
24-35	13.0	1,370	11.9	15.3	1.7	2.3	1,120
36-47	13.5	1,529	12.7	14.8	1.2	2.3	922
48-59	11.5	1,540	12.6	14.7	0.5	1.6	688
Child's sex							
Male	11.8	3,667	11.1	17.2	1.3	2.5	2,876
Female	12.6	3,605	10.3	16.5	1.7	2.3	2,838
Birth order							
1	14.4	1,394	13.7	20.8	1.8	3.5	975
2-3	13.2	2,643	12.4	19.4	1.8	2.6	2,053
4-5	10.9	1,611	8.2	15.5	1.1	1.5	1,296
6+	9.8	1,624	8.5	11.5	1.2	2.1	1,391
Mother's age at birth							
<20	11.2	657	12.6	22.4	1.5	3.4	465
20-24	12.8	1,568	12.1	17.0	1.5	2.2	1,112
25-29	13.0	2,003	10.3	18.2	1.3	2.5	1,537
30-34	12.1	1,610	11.2	17.6	1.7	2.4	1,272
35+	10.7	1,433	8.9	12.4	1.5	2.0	1,329
Breastfeeding status							
Breastfeeding	11.1	5,388	9.4	17.0	1.5	2.4	4,112
Not breastfeeding	15.2	1,884	14.1	16.5	1.5	2.4	1,602
Residence							
Urban	22.7	972	18.6	29.0	2.3	4.1	779
Rural	10.5	6,300	9.5	14.9	1.4	2.1	4,935
Region							
Banteay Mean Chey	2.4	377	17.1	17.0	1.9	4.9	292
Kampong Cham	7.2	997	13.4	12.5	0.6	2.7	785
Kampong Chhnang	5.0	326	11.8	16.6	0.4	11.3	245
Kampong Spueu	2.7	440	12.9	16.2	0.3	1.6	342
Kampong Thum	3.1	406	3.6	15.3	0.0	0.3	306
Kandal	5.6	641	5.6	15.5	0.0	1.4	496
Kaoh Kong	2.4	87	5.2	10.6	0.0	0.0	67
Phnom Penh	45.8	415	27.2	33.8	1.3	3.5	336
Prey Veang	14.5	531	13.4	5.1	1.1	0.0	450
Pousat	9.7	233	6.0	24.7	6.2	7.2	186
Svay Rieng	42.4	271	4.5	32.4	3.7	3.1	229
Takaev	9.1	532	13.7	21.8	1.3	0.5	434
Bat Dambang/ Krong Pailin	5.5	563	14.2	28.8	3.4	1.1	419
Kampot/Krong Kaeb/ Krong Preah Sihanouk	7.9	445	2.7	7.0	4.0	0.9	384
Preah Vihear/Stueng							
Traeng/Kracheh	28.8	333	6.1	13.9	0.6	1.1	249
Mondol Kiri/Rotanak Kiri	74.7	115	7.8	6.9	0.2	1.0	87
Siem Reab/Otdar Mean Chey	4.1	560	4.1	12.0	1.6	3.3	409
Total	12.2	7,272	10.7	16.8	1.5	2.4	5,714

¹ Salt containing at least 15 ppm of iodine

² Children under five living in households where salt was tested

³ For women with two or more live births in the five-year period, data refer to the most recent birth.

13.4.3 Iodine

The disorders induced by dietary iodine deficiency constitute a major global nutrition concern. Iodine is required for the synthesis of thyroid hormones, which are involved in regulating metabolic activities of all cells throughout the life cycle. It plays a key role in cell replication. This is particularly relevant to the brain since neural cells multiply mainly in utero and during the first two years of life. Iodine deficiency in the fetus leads to increased rates of abortion, stillbirths, congenital anomalies, cretinism, psychomotor defects, and neonatal mortality. In children and adults, the effects manifest as goitre, hypothyroidism, impaired mental functions, retarded mental and physical development, and diminished school performance. Iodine deficiency can be avoided by using salt that has been fortified with iodine.

In the CDHS 2000, the iodine content of the salt used in the household was measured using a rapid-test kit provided by UNICEF. The test kit consisted of ampoules of a stabilized starch solution and a weak acid-based solution. A drop of starch solution was squeezed onto a salt sample obtained in the household, causing the salt to change color. Salt that contains at least 15 parts per million (ppm) of iodine is considered to be adequately iodized.

The CDHS interviewer conducting the test matched the color of the salt to a color chart included with the test kit to determine the level of iodine. Table 13.13 shows the percentage of households using iodized salt. Only 12 percent of households had adequately iodized salt. By place of residence, about three-fourths of the households in the regions of Mondol Kiri/Rotanak Kiri had salt that was adequately iodized. In general, urban households were more than twice as likely than rural households to be using iodized salt. There were no substantial differences in iodized salt by sex of the child or mother's age.

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV) that weakens the immune system, making the body susceptible to and unable to recover from other diseases.

The HIV/AIDS epidemic has become a serious health and development problem in many countries around the world. The Joint United Nations Program on HIV/AIDS estimated the number of HIV infections worldwide at about 34 million at the end of 1999, of which 25 million are found in sub-Saharan Africa, and approximately 5.5 million are found in South and Southeast Asia (UNAIDS, 2000). Another 19 million people infected with HIV have died from the disease since the beginning of the epidemic—4 million of them were children.

HIV infection was first detected in Cambodia in 1991, and the first AIDS case was officially diagnosed in 1994. Although the presence of the HIV virus was detected in the Cambodian population somewhat later than elsewhere in the world, it had likely been incubating there for several years, and it has spread so rapidly that Cambodia now has the fastest growing HIV/AIDS epidemic in Asia, outpacing its neighbor, Thailand, which previously had the highest HIV/AIDS prevalence in Asia (USAID, 2001). At the end of 2000, there were an estimated 169,000 Cambodians living with HIV/AIDS (more than 1 percent of the total population). One estimation shows that there were 16,000 AIDS patients in the country in 1998 (Ministry of Health, 2000).

A widely-cited study of the spread of HIV and other sexually transmitted infections (STIs) in Cambodia found a significant prevalence of HIV among three groups studied in five urban areas of Cambodia. Mean prevalence of HIV (HIV-1) among women seeking reproductive health services (likely to be at lowest risk on average) was 5 percent, 13 percent among male police and military personnel, and among female sex workers, 41 percent were found to be HIV-positive (Ryan et al., 1998).

The CDHS 2000 included a series of questions on HIV/AIDS. Female respondents were first asked whether they had heard of AIDS. Several questions were also asked to assess respondents' level of awareness about the disease, their knowledge of the modes of transmission, whether they thought it was possible to prevent AIDS (and if so, how), whether they had used condoms for the prevention of HIV/AIDS, and their attitude toward the disease. Respondents were also asked whether they had discussed the disease with their spouse. Additional questions were included in the CDHS 2000 to assess the level of awareness of STIs other than HIV/AIDS among women. Respondents were also asked whether they had experienced an STI or signs and symptoms of STIs in the last 12 months.

14.1 AIDS AWARENESS

Table 14.1 shows the percentage of women who have heard of AIDS by background characteristics. Knowledge of AIDS is high among Cambodian women (95 percent), even accounting for differences between urban and rural women: 94 percent of rural women have heard of HIV/AIDS, compared with 98 percent of urban women. However, there are three regions in

Cambodia that have a significantly lower level of awareness of AIDS: Banteay Mean Chey (79 percent), Preah Vihear/Stueng Traeng/Kracheh (69 percent), and Mondol Kiri/Rotanak Kiri (62 percent). Not surprisingly, education improves respondents' knowledge of AIDS, whereas among those with no education, 91 percent have heard of AIDS, and among those with the highest levels of education, 98 percent have heard of AIDS. There is only small variation in knowledge of AIDS by age and marital status, ranging from 93 percent among the youngest age group to 96 percent among the oldest. Those who have never been married are marginally less likely than those who have ever been married to have heard of HIV/AIDS (94 percent and 95 percent, respectively).

14.2 KNOWLEDGE OF HIV/AIDS PREVENTION

To ascertain the depth of knowledge about HIV/AIDS, respondents who had heard of the infection were asked whether there is anything a person can do to avoid getting infected with HIV, the virus that causes AIDS, and if so, what. Table 14.2 shows the percentage of all women who spontaneously mentioned specific ways to avoid contracting the disease. Twenty-four percent of Cambodian women overall have not heard of AIDS or do not know whether it can be avoided; urban-rural differences are substantial here, with only 12 percent of urban women stating that they don't know of AIDS or if it can be avoided, compared with 27 percent of rural women. Two percent of women stated that there is no way to avoid getting AIDS, and 1 percent of women do not know a specific way to avoid contracting AIDS.

Most respondents (66 percent of women) believe that use of condoms is one way to avoid contracting HIV. A sizable proportion of women also mentioned having only one sexual partner and abstaining from sexual relations (36 percent and 23 percent, respectively). Most of the responses to the question of ways in which one can avoid HIV/AIDS revolved around sexual transmission of HIV, and less around intravenous drug use.

It is of interest to note that the youngest group of women (age 15-19) are more likely to cite avoiding injections, blades, transfusions, manicures/pedicures, and sex with a person who uses injectable drugs than any other age group, and they are somewhat less likely to cite abstinence, condom use, and having only one sexual partner than the other age groups. This likely indicates

Table 14.1 Knowledge of AIDS

Percentage of women who have heard of AIDS, by background characteristics, Cambodia 2000

Background characteristic	Has heard of HIV/AIDS	Number
Age		
15-19	93.3	3,618
20-24	94.6	1,982
25-29	94.2	2,118
30-39	95.9	4,362
40-49	95.7	3,272
Current marital status		
Never married	93.5	4,884
Married	95.5	9,071
Divorced, separated, widowed	95.4	1,396
Residence		
Urban	97.6	2,692
Rural	94.3	12,659
Region		
Banteay Mean Chey	78.6	672
Kampong Cham	91.6	1,961
Kampong Chhnang	98.5	583
Kampong Spueu	94.2	725
Kampong Thum	97.8	777
Kandal	99.8	1,469
Kaoh Kong	96.6	147
Phnom Penh	99.7	1,657
Prey Veaeang	99.5	1,272
Pousat	98.0	433
Svay Rieng	89.5	688
Takaev	99.8	1,107
Bat Dambang/Krong Pailin	98.8	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	98.8	999
Preah Vihear/Stueng Traeng/ Kracheh	69.0	582
Mondol Kiri/Rotanak Kiri	62.2	161
Siem Reab/Otdar Mean Chey	95.5	1,036
Education		
No education	90.7	4,338
Primary	95.9	8,376
Secondary and higher	98.4	2,637
Total	94.8	15,351

Table 14.2. Knowledge of ways to avoid HIV/AIDS

Percentage of women who know of ways to avoid HIV/AIDS, by background characteristics, Cambodia 2000

Background characteristic	Ways to avoid HIV/AIDS											Number of women					
	Abstain from sexual relations	Use condoms	Have only one sexual partner	Limit number of partners	Avoid sex with prostitutes	Avoid sex with person who has multiple partners	Avoid sex with homosexuals	Avoid sex with person who uses IV drugs	Avoid injections	Avoid sharing blades	Avoid pedicure/manicure		Other	Does not know specific ways	Does not know of AIDS or if AIDS can be avoided	Believes no way to avoid AIDS	
Age																	
15-19	21.6	64.6	31.7	18.9	19.2	9.9	4.9	5.3	15.9	14.3	8.9	14.4	1.5	1.6	26.1	2.1	3,618
20-24	22.8	65.6	32.9	16.5	17.0	8.7	2.9	3.3	12.7	11.1	7.3	12.1	0.9	1.2	26.1	2.2	1,982
25-29	23.0	66.1	36.8	18.1	19.2	9.5	4.4	4.3	13.2	13.0	8.3	10.7	1.0	1.5	24.7	2.2	2,118
30-39	22.6	68.0	37.9	20.5	20.5	10.1	4.3	4.2	12.5	11.5	8.0	10.1	1.6	1.4	22.1	2.2	4,362
40-49	24.6	66.3	37.1	19.2	19.6	9.2	4.4	4.1	13.9	11.9	8.1	10.4	1.6	1.1	23.1	1.8	3,272
Marital status																	
Never married	22.8	64.4	33.3	19.0	18.5	10.0	4.7	5.1	15.0	14.2	9.0	14.4	1.4	1.5	26.6	2.1	4,884
Married	22.9	67.3	36.9	19.2	20.0	9.4	4.1	4.1	13.3	11.5	7.9	10.2	1.4	1.3	22.6	2.1	9,071
Divorced, separated, widowed	23.7	66.2	34.0	17.7	18.0	9.5	4.1	3.6	11.4	11.8	7.3	10.1	1.7	1.3	25.7	1.9	1,396
Residence																	
Urban	28.7	79.6	45.3	31.2	29.6	16.9	10.0	10.4	24.3	24.4	19.6	23.9	2.2	0.9	12.1	1.2	2,692
Rural	21.7	63.4	33.4	16.4	17.2	8.1	3.1	3.1	11.4	9.8	5.8	8.9	1.3	1.5	26.7	2.3	12,659
Region																	
Banteay Mean Chey	21.1	44.4	30.6	5.3	4.7	1.1	1.1	0.3	11.2	4.2	1.1	1.2	0.5	1.6	42.8	4.6	672
Kampong Cham	21.7	53.1	26.6	4.7	4.2	0.9	0.0	0.1	2.8	3.2	1.0	1.1	0.4	3.3	36.9	3.5	1,961
Kampong Chhnang	35.1	71.4	49.2	13.5	1.3	0.7	0.1	0.1	0.6	2.8	2.2	2.4	0.5	1.0	10.2	4.6	583
Kampong Speu	15.5	31.1	17.7	7.3	8.9	3.9	0.3	0.2	1.0	0.8	0.4	0.4	0.4	0.3	66.7	0.8	725
Kampong Thum	19.6	45.9	25.7	13.9	19.1	11.5	1.4	1.2	12.8	14.5	9.8	9.3	2.4	4.5	43.5	1.8	777
Kandal	11.5	77.5	47.5	27.0	22.8	18.5	13.7	8.4	24.5	14.1	8.8	26.2	2.5	0.5	10.1	1.2	1,469
Kaoh Kong	6.3	48.8	4.9	2.1	5.7	1.1	0.7	0.6	3.0	1.7	13.6	20.4	1.0	5.9	30.1	2.3	147
Phnom Penh	27.8	91.7	58.3	47.6	41.8	28.1	22.8	22.6	29.6	33.3	33.4	37.5	6.0	0.3	2.3	0.8	1,652
Prey Veang	25.8	86.0	28.6	14.3	10.8	3.2	0.0	0.1	0.1	0.4	0.5	0.7	0.0	0.2	9.4	0.6	1,272
Pousat	8.5	60.5	2.8	5.5	25.6	2.1	0.1	0.2	5.8	5.9	1.4	2.3	0.4	1.2	14.4	2.7	433
Svay Rieng	12.7	66.3	36.7	18.5	16.3	15.8	0.9	0.3	11.5	16.1	2.2	2.8	0.3	1.0	27.1	1.2	688
Takaev	36.2	72.8	42.9	24.1	31.6	13.9	1.0	2.9	19.0	15.4	2.9	8.3	0.1	0.1	14.4	2.8	1,107
Bat Dambang/Krong Pailin	49.4	81.3	61.8	32.3	36.8	11.8	2.5	9.9	34.7	23.6	19.3	24.0	0.7	0.0	15.0	0.7	1,084
Kampong Krong/Kaeb/Krong Preah Sihanouk	11.7	63.9	25.4	15.0	18.9	4.5	0.2	0.2	3.8	3.7	1.5	1.3	0.5	3.5	22.7	1.5	999
Preah Vihear/Stueng	8.4	38.9	17.2	12.8	5.1	5.9	0.4	0.0	3.0	6.7	1.2	2.9	0.1	0.9	50.3	4.0	582
Traeng/Kracheh	1.4	22.3	7.8	3.8	2.5	0.5	0.2	0.1	2.8	1.7	0.0	0.1	0.5	1.4	70.3	2.5	161
Mondul Kiri/Rotanak Kiri	27.5	68.0	28.9	17.4	26.1	6.7	0.6	0.8	24.9	26.3	13.8	18.9	2.6	1.0	25.0	2.8	1,036
Siem Reap/Otdar Mean Chey																	
Education																	
No education	20.5	51.3	27.2	11.8	12.4	4.7	1.8	2.0	7.5	5.4	3.6	5.5	1.0	1.8	38.2	2.7	4,338
Primary	22.0	67.9	34.5	18.6	19.4	9.2	3.6	3.4	12.7	11.4	6.9	10.2	1.4	1.4	22.1	2.1	8,376
Secondary and higher	29.8	85.8	52.1	32.1	30.7	18.9	10.6	11.3	27.0	27.0	19.7	25.8	2.1	0.4	7.4	0.9	2,637
Total	22.9	66.3	35.5	19.0	19.4	9.6	4.3	4.4	13.7	12.4	8.2	11.5	1.4	1.4	24.1	2.1	15,351

the lived realities of girls of this age, who are predominantly unmarried (and thus unlikely to be engaging in sexual relations), leaving them less exposed to sexual routes of transmission than other age groups. However, they may still be exposed to nonsexual routes of transmission, particularly in urban areas: more women in this age group are urban than in other age groups, which might contribute to the greater likelihood of this age group to report nonsexual ways to avoid of HIV/AIDS.

Abstaining from sex, using condoms, and limiting the number of sexual partners have been identified as programmatically important ways to avoid the spread of HIV/AIDS. Therefore specific questions on knowledge of these three ways to avoid HIV were asked of the respondents. The extent of respondents' knowledge about these ways can be ascertained from Table 14.3. Sixty-nine percent of all Cambodian women know two or three ways to avoid HIV/AIDS, and another 4 percent know of only one way. Almost three-quarters of respondents (72 percent) mentioned the use of condoms as a specific way to avoid HIV/AIDS, while 68 percent of women mentioned limiting the number of partners, and 60 percent included abstinence as a way to avoid HIV. Residence and education are the two most influential background characteristics on respondents' knowledge of programmatically important ways to avoid contracting HIV/AIDS. Not surprisingly, women residing in urban areas are much more likely than rural residents to know of at least two valid ways (83 percent and 67 percent, respectively). Knowledge of two or three valid ways to avoid HIV/AIDS is also comparatively higher among respondents with at least secondary education (89 percent), whereas only 55 percent of those with no education can cite two or three ways of avoidance.

Table 14.3 Knowledge of programmatically important ways to avoid HIV/AIDS

Percent distribution of women by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of women who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Cambodia 2000

Background characteristic	Does not know of HIV/AIDS	Knows HIV/AIDS but does not know of a way to avoid it	Knowledge of programmatically important ways to avoid HIV/AIDS		Total	Specific ways to avoid HIV/AIDS			Number
			One way	Two or three ways		Use condoms	Limit number of sexual partners ¹	Abstain from sexual relations	
Age									
15-19	6.7	22.0	4.8	66.5	100.0	70.4	64.9	56.4	3,618
20-24	5.4	23.5	3.4	67.8	100.0	70.1	66.5	57.5	1,982
25-29	5.8	21.7	3.5	68.9	100.0	71.2	67.8	61.2	2,118
30-39	4.1	20.8	3.5	71.6	100.0	73.5	70.6	62.5	4,362
40-49	4.2	21.1	4.2	70.4	100.0	72.2	69.2	61.8	3,272
Marital status									
Never married	6.5	22.8	4.2	66.6	100.0	69.7	65.0	56.5	4,884
Married or living together	4.5	20.7	3.9	70.9	100.0	73.0	69.8	61.9	9,071
Divorced, separated, widowed	4.6	23.5	3.1	68.8	100.0	70.6	67.1	60.7	1,396
Residence									
Urban	2.4	11.2	3.7	82.7	100.0	84.9	82.0	68.3	2,692
Rural	5.7	23.8	4.0	66.5	100.0	68.9	65.1	58.4	12,659
Region									
Banteay Mean Chey	21.2	27.2	4.1	47.3	100.0	50.4	44.3	45.5	672
Kampong Cham	8.4	33.2	10.9	47.4	100.0	56.5	46.2	40.7	1,961
Kampong Chhnang	1.5	13.3	3.3	81.9	100.0	79.8	81.5	73.1	583
Kampong Spueu	5.8	61.9	1.6	30.6	100.0	31.9	30.0	28.6	725
Kampong Thum	2.2	45.8	2.3	49.7	100.0	50.5	48.8	46.0	777
Kandal	0.2	11.4	3.2	85.3	100.0	87.4	84.5	70.9	1,469
Kaoh Kong	3.4	29.7	4.0	62.8	100.0	63.0	59.9	58.7	147
Phnom Penh	0.3	2.9	4.5	92.4	100.0	95.7	92.4	64.4	1,657
Prey Veang	0.5	9.6	0.7	89.2	100.0	89.7	88.9	86.3	1,272
Pousat	2.0	15.9	5.8	76.3	100.0	76.6	71.3	71.0	433
Svay Rieng	10.5	18.4	3.5	67.7	100.0	70.1	67.2	55.9	688
Takaev	0.2	17.0	0.8	81.9	100.0	82.0	81.9	70.7	1,107
Bat Dambang/Krong Pailin	1.1	14.7	0.5	83.6	100.0	83.3	83.1	83.0	1,084
Kampot/Krong Kaeb/Krong Preah Sihanouk	1.2	23.8	8.4	66.6	100.0	71.9	61.1	52.2	999
Preah Vihear/Stueng									
Traeng/Kracheh	30.9	23.4	1.0	44.5	100.0	44.5	43.5	39.3	582
Mondol Kiri/Rotanak Kiri	37.8	36.2	4.7	21.2	100.0	24.6	20.5	12.4	161
Siem Reab/Otdar									
Mean Chey	4.5	23.7	1.5	70.3	100.0	70.6	68.0	67.2	1,036
Education									
No education	9.2	32.5	3.5	54.7	100.0	56.5	53.4	49.7	4,338
Primary	4.1	20.6	4.4	70.8	100.0	73.6	69.4	61.5	8,376
Secondary and higher	1.6	6.8	3.2	88.5	100.0	90.7	87.6	72.9	2,637
Total	5.1	21.6	3.9	69.3	100.0	71.7	68.0	60.1	15,351

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. These three ways are measured from spontaneous and probed responses.

¹ Refers to limiting number of sexual partners, and limiting sex to one partner/staying faithful to one partner.

14.3 KNOWLEDGE OF HIV/AIDS-RELATED ISSUES

Respondents who have heard of HIV/AIDS were asked a number of questions on their knowledge of HIV/AIDS-related issues. The information is presented in Table 14.4. Sixty-three percent of women believe that a healthy-looking person can have the AIDS virus. Most women also recognize that the infection can be transmitted from a mother to her child in a variety of ways: during pregnancy (70 percent), during delivery (62 percent), and by breastfeeding (67 percent).

Table 14.4 Knowledge of HIV/AIDS-related issues

Percentage of women by responses to questions on various HIV/AIDS-related issues, according to background characteristics, Cambodia 2000

Background characteristic	Percentage who say that a healthy-looking person can have the AIDS virus	Percentage who say that HIV/AIDS can be transmitted from mother to child			Percentage who say they know someone personally who has AIDS or died of AIDS	Number
		During pregnancy	During delivery	By breast-feeding		
Age						
15-19	62.1	66.3	57.6	62.1	46.7	3,618
20-24	63.0	66.4	58.9	64.2	45.3	1,982
25-29	62.3	69.8	62.0	68.6	48.0	2,118
30-39	63.6	73.7	64.3	70.5	48.2	4,362
40-49	61.6	71.6	63.3	70.3	49.8	3,272
Marital status						
Never married	62.7	65.9	57.5	62.0	46.8	4,884
Married	62.8	72.3	63.6	70.2	48.3	9,071
Divorced, separated, widowed	60.7	69.9	61.8	68.0	47.8	1,396
Residence						
Urban	77.4	82.9	76.5	80.3	63.0	2,692
Rural	59.4	67.3	58.3	64.7	44.5	12,659
Region						
Banteay Mean Chey	36.7	50.2	46.8	49.1	31.4	672
Kampong Cham	45.6	61.3	46.9	58.9	18.7	1,961
Kampong Chhnang	50.1	88.7	65.1	81.7	61.4	583
Kampong Spueu	47.7	46.7	38.9	47.1	29.7	725
Kampong Thum	45.7	54.8	39.2	52.1	27.3	777
Kandal	65.7	83.5	72.8	75.3	58.3	1,469
Kaoh Kong	60.3	61.6	59.0	66.9	54.7	147
Phnom Penh	86.3	89.6	84.9	86.1	76.3	1,657
Prey Veaeng	77.9	76.6	75.7	76.9	63.9	1,272
Pousat	59.2	81.9	72.6	78.7	18.2	433
Svay Rieng	54.1	69.5	55.4	66.0	57.1	688
Takaev	84.1	57.6	56.6	57.5	65.1	1,107
Bat Dambang/ Krong Pailin	81.0	79.1	73.4	78.1	46.2	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	58.2	79.7	63.2	75.0	52.0	999
Preah Vihear/Stueng						
Traeng/Kracheh	43.6	49.8	43.3	47.4	25.4	582
Mondol Kiri/Rotanak Kiri	22.5	22.5	20.5	22.7	13.0	161
Siem Reab/Otdar Mean Chey	66.8	67.7	65.8	66.7	55.4	1,036
Education						
No education	49.2	58.1	50.8	55.1	36.7	4,338
Primary	62.8	71.3	61.9	68.5	48.7	8,376
Secondary and higher	83.8	85.4	78.0	84.2	62.8	2,637
Total	62.6	70.0	61.5	67.4	47.8	15,351

Urban women are significantly more likely than rural women to be more knowledgeable about HIV/AIDS-related issues, as are more educated women. The youngest women (age 15-19) are less likely to know about ways that HIV can be transmitted from a mother to her child than women in other age groups, but they are not significantly different from other age groups in their knowledge that healthy-looking people can still be infected with HIV.

Awareness of HIV/AIDS and knowledge of ways to avoid AIDS may be enhanced by a respondent's exposure to individuals who have the AIDS virus or who have died from AIDS. When asked whether respondents knew someone personally who has HIV/AIDS, almost half of all women reported that they know someone personally who either has AIDS or has died of AIDS. More urban women know or knew someone with AIDS than rural women (63 percent compared with 45 percent), and more educated women are also more likely to have known someone with AIDS. Seventy-six percent of women living in Phnom Penh know someone personally who has AIDS or who has died of AIDS.

14.4 SOCIAL ASPECTS OF HIV/AIDS PREVENTION AND MITIGATION

Respondents who have heard of HIV/AIDS were also asked a number of questions on the social aspects of HIV/AIDS prevention and mitigation in order to assess their attitude toward people with the AIDS virus. Table 14.5 shows that most Cambodian women are both willing to care for a relative who is sick with AIDS (54 percent) and are supportive of teaching 12- to 14-year-old children how to use condoms (55 percent). Almost a quarter of women think that the HIV-positive status of a person should remain a secret, and 35 percent think that a person with AIDS should be allowed to continue working. Urban women are 28 percent more likely than rural women to care for a sick relative and are 22 percent more likely to think that children age 12-14 should be taught to use condoms. Those with more education are most likely to be willing to care for a relative, to think that a person should be allowed to continue working, and to think that children age 12-14 should be taught to use condoms.

Table 14.5 Social aspects of HIV/AIDS

Percentage of women who have heard of AIDS by responses to questions on various social aspects of HIV/AIDS, according to background characteristics, Cambodia 2000

Background characteristic	Percentage who think that the HIV-positive status of a person should remain a secret	Percentage who are willing to care for a relative sick with AIDS	Percentage who think that a person with AIDS should be allowed to continue working	Percentage who think that children age 12-14 should be taught to use condoms	Number
Age					
15-19	26.2	53.4	36.2	51.3	3,618
20-24	22.1	55.2	37.5	52.2	1,982
25-29	19.1	53.0	36.1	55.9	2,118
30-39	22.7	55.0	34.2	55.5	4,362
40-49	21.4	53.6	33.4	57.0	3,272
Current marital status					
Never married	24.8	54.0	37.1	51.4	4,884
Married	21.8	54.1	34.2	56.0	9,071
Divorced, separated, widowed	20.7	54.3	34.6	55.1	1,396
Residence					
Urban	27.5	65.9	45.5	63.8	2,692
Rural	21.6	51.6	33.0	52.5	12,659
Region					
Banteay Mean Chey	5.7	20.3	8.5	40.7	672
Kampong Cham	3.4	41.7	29.0	45.4	1,961
Kampong Chhnang	32.8	33.5	15.2	51.4	583
Kampong Spueu	2.7	67.7	35.6	35.1	725
Kampong Thum	27.8	62.5	34.5	61.3	777
Kandal	47.2	64.2	39.2	54.0	1,469
Kaoh Kong	12.0	36.8	32.0	21.5	147
Phnom Penh	25.7	76.2	43.4	61.0	1,657
Prey Veang	22.2	66.9	58.9	76.2	1,272
Pousat	22.7	59.0	19.3	59.0	433
Svay Rieng	19.4	44.7	20.2	52.1	688
Takaev	24.0	78.0	60.4	54.6	1,107
Bat Dambang/Krong Pailin	46.3	70.4	60.0	62.2	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	17.8	38.2	23.3	69.2	999
Preah Vihear/Stueng Traeng/ Kracheh	12.0	32.7	21.0	40.4	582
Mondol Kiri/Rotanak Kiri	3.3	20.7	14.7	21.7	161
Siem Reap/Otdar Mean Chey	26.8	26.1	14.3	49.3	1,036
Education					
No education	17.8	40.9	24.3	45.1	4,338
Primary	24.5	54.7	35.3	56.0	8,376
Secondary and higher	25.1	73.8	52.6	64.9	2,637
Total	22.7	54.1	35.2	54.5	15,351

14.5 DISCUSSION OF HIV/AIDS IN THE MEDIA OR IN SPECIFIC LOCATIONS

To determine the level of acceptance of the dissemination of information on HIV/AIDS through the media and other conduits of information, the CDHS 2000 asked women whether it was acceptable to disseminate HIV/AIDS information through various media or in various locations. The results are presented in Table 14.6.

Overall, 90 percent or more of women approved of the dissemination of HIV/AIDS information in the following media or locations: on the radio or television, in the newspaper, in secondary school, in the workplace, at a health facility, and in a community setting. Primary

Table 14.6 Discussion of HIV/AIDS

Percentage of women who think discussion of HIV/AIDS is acceptable in specific media or in specific locations, by background characteristics, Cambodia 2000

Background characteristic	Percentage who think discussion of HIV/AIDS is acceptable:									Number
	On radio	On TV	In newspaper	In primary school	In secondary school	In the workplace	In a temple	In a health facility	In a community setting	
Current age										
15-19	92.1	91.9	88.7	75.1	90.2	91.5	68.5	91.8	90.8	3,618
20-29	93.1	92.6	87.9	73.7	90.3	92.3	67.8	92.7	91.5	1,982
25-29	93.2	92.6	88.9	76.6	91.6	92.8	74.0	92.8	91.6	2,118
30-39	94.7	94.4	92.3	80.0	93.2	94.7	74.5	94.5	93.5	4,362
40-49	94.8	94.7	91.6	81.0	93.8	94.6	73.3	94.2	93.2	3,272
Marital status										
Never married	92.3	92.0	88.2	74.2	90.3	91.8	67.5	92.2	91.1	4,884
Married	94.4	94.1	91.3	79.5	92.8	94.1	73.6	93.8	92.7	9,071
Divorced, separated, widowed	93.8	93.5	91.0	79.4	92.8	94.5	75.8	94.3	93.5	1,396
Residence										
Urban	97.0	97.1	96.0	85.5	96.3	96.8	78.4	97.0	96.3	2,692
Rural	93.0	92.6	89.0	76.2	91.1	92.6	70.5	92.6	91.4	12,659
Region										
Banteay Mean Chey	76.9	75.9	70.5	55.2	76.0	75.5	61.1	68.6	67.2	672
Kampong Cham	88.6	86.7	77.6	49.2	84.9	87.8	43.5	88.2	86.3	1,961
Kampong Chhnang	98.0	98.1	97.9	92.0	98.0	97.4	71.9	98.3	95.3	583
Kampong Spueu	93.5	93.7	93.4	85.4	93.7	93.5	79.4	93.8	93.5	725
Kampong Thum	96.0	96.1	95.8	95.7	96.2	96.2	92.8	95.9	95.6	777
Kandal	99.7	99.7	98.6	97.4	99.7	99.7	79.3	99.4	99.2	1,469
Kaoh Kong	94.3	95.9	94.6	77.4	96.1	95.7	43.5	95.7	89.3	147
Phnom Penh	99.5	99.5	99.3	93.8	99.2	99.1	81.3	99.5	99.2	1,657
Prey Veang	99.2	98.8	81.7	77.8	98.6	98.6	71.4	98.2	97.6	1,272
Pousat	95.5	95.8	95.8	86.0	96.6	96.8	70.8	97.1	96.2	433
Svay Rieng	88.5	87.1	86.9	84.6	86.6	88.0	84.8	88.1	86.7	688
Takaev	99.3	99.6	99.3	49.4	98.6	99.4	74.7	99.5	98.7	1,107
Bat Dambang/ Krong Pailin	98.3	98.3	98.0	67.1	83.3	96.4	62.0	97.9	94.6	1,084
Kampot/Krong Kaeb/ Krong Preah Sihanouk	97.0	97.6	96.9	96.0	96.9	97.0	88.1	97.9	97.1	999
Preah Vihear/Stueng Traeng/Kracheh	67.1	66.0	65.2	62.8	68.2	68.1	58.3	68.5	68.1	582
Mondol Kiri/ Rotanak Kiri	59.7	59.5	58.9	57.2	58.0	59.0	54.0	58.3	58.0	161
Siem Reab/Otdar Mean Chey	94.4	94.8	94.7	94.2	94.8	94.7	84.7	94.8	94.6	1,036
Education										
No education	88.8	88.2	83.7	72.1	87.1	88.5	65.2	88.2	87.0	4,338
Primary	94.9	94.7	91.6	78.8	93.0	94.5	73.4	94.5	93.3	8,376
Secondary and higher	97.9	97.9	96.7	84.0	97.0	97.9	78.1	97.9	97.5	2,637
Total	93.7	93.4	90.3	77.8	92.0	93.4	71.9	93.3	92.3	15,351

schools and temples received lower levels of approval for dissemination of HIV/AIDS information, although the majority of women did approve of these locations (78 percent and 72 percent, respectively).

Urban women were more likely than rural women to approve of every information outlet, and approval is positively associated with education: women with secondary or higher education are significantly more likely to approve of all outlets of HIV/AIDS information dissemination than those with no education.

14.6 TESTING FOR AIDS

CDHS respondents were asked whether they had ever been tested for HIV or the AIDS virus. If they said that they had not, respondents were then asked whether they would like to be tested. If they said that they would like to be tested, respondents were asked whether they knew of a specific location where they could go to get the test for the AIDS virus.

Table 14.7 shows that 3 percent of women reported that they had already been tested for HIV and most of them (2 percent) were tested in the public medical sector. Urban women were more than four times more likely to have been tested than rural women. Few women with no education report that they have had an HIV test—less than 1 percent—while women with secondary or higher education are by far the most likely to avail themselves of an HIV test (8 percent).

The overall desire or demand to be tested includes those who responded that they have not yet been tested but would like to be tested (unmet demand) and those who have already been tested (met demand). Columns 4 and 5 of Table 14.7 can be added together to estimate the total demand for HIV testing. Looking at the table in this fashion, one observes that 28 percent of women have a desire to be tested, and that only 3 percent of women have been able to meet that demand, indicating that only 10 percent of demand has been met.

Using the same approach and incorporating background characteristics, one observes that whereas 23 percent of urban women's demand for HIV testing is met, only 6 percent of rural women's demand is met. The scenario is similar when comparing women's access to HIV testing services by education: among women with no education, a mere 4 percent of demand is met, and among women with secondary education, 21 percent of demand is met. Demand for HIV testing is high in Pousat (50 percent), Kampong Spueu (56 percent), and Kampong Chhnang (60 percent); no more than 2 percent of women in any of these regions have been tested. This points clearly to a need to make these services available to Cambodian women, particularly those women who have the least access.

Overall, only 16 percent of women who have not been tested for HIV know of a place for testing. Eleven percent of rural women and 37 percent of urban women know of a source, indicating a not-unexpected urban bias in access to testing services. Those with the most education are also the most aware of sources for obtaining the HIV test.

Table 14.7 Testing for AIDS

Percent distribution of women by status of HIV/AIDS testing, source of test if tested, preference for testing, and knowledge of source of test, by background characteristics, Cambodia 2000

Background characteristic	Has been tested for HIV/AIDS				Has not been tested for HIV/AIDS, desires HIV/AIDS test				Has not been tested for HIV/AIDS, knows source for testing				Does not know a source/does not know AIDS	Number of women not tested	
	In public medical sector	In private medical sector	In other place	All	Yes, wants test	Does not want test	Does not know AIDS/undecided about test	Total not tested	Public medical sector	Private medical sector	Other places	Total			Number
Age															
15-19	1.3	0.2	0.3	1.9	21.4	65.3	11.4	98.1	12.4	0.3	3.618	87.0	3,550		
20-24	2.3	0.9	0.3	3.5	24.9	62.7	8.9	96.5	14.0	0.9	1,982	84.6	1,913		
25-29	2.1	1.3	0.3	3.7	25.6	61.1	9.6	96.3	15.2	0.3	2,118	84.1	2,039		
30-39	2.3	0.5	0.2	3.1	27.0	62.7	7.2	96.9	15.7	1.3	4,362	82.6	4,228		
40-49	1.7	0.4	0.2	2.3	25.0	64.8	8.0	97.7	15.5	0.4	3,272	84.0	3,198		
Marital status															
Never married	1.4	0.3	0.3	2.0	21.6	65.4	11.0	98.0	13.5	0.4	4,884	85.8	4,787		
Married	2.1	0.7	0.3	3.1	26.7	62.3	7.9	96.9	15.3	0.8	9,071	83.5	8,791		
Divorced, separated, widowed	2.7	0.6	0.1	3.4	23.4	65.2	8.0	96.6	13.7	0.9	1,396	85.4	1,349		
Residence															
Urban	5.7	1.9	0.5	8.1	27.5	59.9	4.5	91.9	34.6	1.9	2,692	62.7	2,474		
Rural	1.1	0.3	0.2	1.6	24.2	64.3	9.8	98.4	10.6	0.4	12,659	88.7	12,453		
Region															
Banteay Mean Chey	0.9	0.5	0.0	1.5	9.0	66.1	23.4	98.5	2.3	0.7	672	97.0	662		
Kampong Cham	0.6	0.4	0.2	1.3	20.5	65.9	12.4	98.7	8.6	0.5	1,961	90.9	1,935		
Kampong Chhnang	0.9	0.1	0.0	1.0	58.8	37.5	2.6	99.0	19.7	0.2	583	80.0	577		
Kampong Speu	0.4	0.0	1.0	1.4	54.9	33.7	10.0	98.6	3.5	0.0	725	96.5	715		
Kampong Thum	2.8	0.1	0.0	3.3	19.0	77.5	3.4	99.9	7.2	0.1	777	92.7	776		
Kandal	2.8	0.4	0.0	3.3	24.0	69.7	3.1	96.7	6.1	0.7	1,469	93.2	1,421		
Kaoh Kong	0.9	0.2	0.4	1.5	23.6	68.4	6.6	98.5	4.1	0.2	147	95.7	145		
Phnom Penh	8.8	3.5	1.5	13.8	30.1	54.8	1.4	86.2	38.2	2.6	1,657	56.4	1,429		
Prey Veang	0.2	0.0	0.0	0.2	2.8	89.6	7.3	99.8	19.2	0.1	1,272	80.5	1,269		
Pousat	1.6	0.3	0.0	2.0	48.1	45.7	4.2	98.0	21.3	0.0	433	78.6	424		
Svay Rieng	1.6	0.0	0.0	1.6	16.8	65.2	16.5	98.4	8.0	0.0	688	92.0	677		
Takaev	0.6	0.2	0.0	0.8	30.7	58.7	9.8	99.2	10.5	0.0	1,107	89.5	1,098		
Bat Dambang/Krong Pailin	0.9	0.3	0.0	1.3	13.3	81.3	4.2	98.7	23.3	0.7	1,084	75.9	1,070		
Kampot/Krong Kaeb/															
Krong Preah Sihanouk	2.0	0.5	0.0	2.6	30.2	65.0	2.2	97.4	14.6	0.4	999	84.9	973		
Preah Vihear/Stueng Traeng/															
Kracheh	1.2	0.0	0.1	1.4	18.6	46.2	33.7	98.6	6.9	0.1	582	93.1	573		
Mondol Kiri/Rotanak Kiri	2.1	0.2	0.2	2.4	15.2	27.9	54.5	97.6	7.2	0.1	161	92.7	157		
Siem Reab/Otdar Mean Chey	0.9	0.0	0.1	1.0	28.3	61.9	8.8	99.0	21.3	2.2	1,036	76.3	1,026		
Education															
No education	0.6	0.1	0.1	0.8	20.8	64.7	13.7	99.2	7.1	0.3	4,338	92.5	4,304		
Primary	1.6	0.3	0.3	2.2	25.5	64.3	8.0	97.8	12.8	0.6	8,376	86.4	8,191		
Secondary and higher	5.2	2.1	0.6	7.8	29.4	59.1	3.7	92.2	33.9	1.4	2,637	63.7	2,432		
Total	1.9	0.6	0.3	2.8	24.8	63.5	8.9	97.2	14.6	0.7	15,351	84.4	14,927		

14.7 KNOWLEDGE OF SIGNS AND SYMPTOMS OF SEXUALLY TRANSMITTED INFECTIONS

Sexually transmitted infections are important predisposing factors of HIV/AIDS transmission. As such, the presence of STIs in a population increases the likelihood of the occurrence of HIV. AIDS prevention programs should therefore also address the prevention and treatment of STIs.

Table 14.8 shows the knowledge among women of signs and symptoms of STIs in a man or a woman. Sixty-one percent of women in Cambodia have no knowledge of STIs (other than HIV/AIDS).

Table 14.8 Knowledge of signs and symptoms of STIs

Percentage of women who know of sexually transmitted infections (STIs) (apart from AIDS) and percent distribution of women who know of STIs by knowledge of signs and symptoms associated with STIs in a man or a woman, by background characteristics, Cambodia 2000

Background characteristic	No knowledge of STIs	Number of women	Knowledge of specific symptoms for men among women who know STIs				Knowledge of specific symptoms for women among women who know STIs				Total women who know STIs
			Does not know any	Knows at least one	Knows two or more	Total	Does not know any	Knows at least one	Knows two or more	Total	
Current age											
15-19	77.0	3,618	25.3	15.7	58.9	100.0	32.2	11.0	56.7	100.0	833
20-29	69.1	1,982	18.8	18.5	62.3	100.0	21.8	14.9	62.9	100.0	613
25-29	58.6	2,118	13.2	14.8	71.7	100.0	16.9	12.1	70.8	100.0	877
30-39	52.9	4,362	14.2	14.0	71.5	100.0	17.3	12.2	70.4	100.0	2,053
40-49	50.9	3,272	10.5	13.1	76.2	100.0	14.2	11.4	74.3	100.0	1,605
Marital status											
Never married	76.5	4,884	22.3	17.0	60.7	100.0	28.0	11.8	59.9	100.0	1,147
Married	53.7	9,071	13.5	14.1	72.2	100.0	17.0	12.6	70.4	100.0	4,198
Divorced, separated, widowed	54.4	1,396	12.8	13.3	73.2	100.0	15.8	9.4	74.1	100.0	636
Residence											
Urban	53.0	2,692	16.5	14.0	69.5	100.0	19.6	10.3	70.1	100.0	1,265
Rural	62.7	12,659	14.7	14.7	70.3	100.0	18.8	12.6	68.5	100.0	4,716
Region											
Banteay Mean Chey	71.4	672	42.9	9.9	47.1	100.0	32.1	5.7	62.2	100.0	192
Kampong Cham	74.0	1,961	25.4	8.9	63.3	100.0	15.4	8.9	74.7	100.0	510
Kampong Chhnang	52.8	583	43.0	14.5	42.5	100.0	58.7	10.6	30.7	100.0	275
Kampong Spueu	90.5	725	35.9	16.3	47.8	100.0	42.6	23.0	34.4	100.0	69
Kampong Thum	79.8	777	34.8	19.5	45.7	100.0	36.4	17.9	45.7	100.0	157
Kandal	63.3	1,469	7.5	11.4	81.1	100.0	15.3	2.4	82.0	100.0	539
Kaoh Kong	75.5	147	15.5	17.0	67.5	100.0	15.1	11.4	73.5	100.0	36
Phnom Penh	56.0	1,657	15.2	10.1	74.7	100.0	17.0	7.8	75.1	100.0	729
Prey Veaseng	29.2	1,272	0.5	30.9	68.6	100.0	0.5	28.5	71.0	100.0	901
Pousat	34.1	433	24.7	36.3	39.0	100.0	44.4	31.7	23.8	100.0	285
Svay Rieng	59.0	688	24.4	18.1	57.2	100.0	33.8	17.2	48.8	100.0	282
Takaev	61.2	1,107	2.5	2.2	95.3	100.0	2.7	2.2	95.1	100.0	429
Bat Dambang/ Krong Pailin	57.1	1,084	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	465
Kampot/Krong Kaeb/ Krong Preah Sihanouk	71.3	999	8.3	10.3	81.3	100.0	12.0	9.3	78.7	100.0	287
Preah Vihear/Stueng Traeng/Kracheh	74.9	582	22.2	30.6	47.2	100.0	23.2	29.8	46.6	100.0	146
Mondol Kiri/ Rotanak Kiri	82.4	161	6.9	64.1	29.0	100.0	18.4	49.5	32.1	100.0	28
Siem Reab/Otdar Mean Chey	37.1	1,036	18.9	7.6	73.5	100.0	34.1	4.6	61.4	100.0	652
Education											
No education	66.3	4,338	13.2	16.0	70.4	100.0	17.1	13.6	69.3	100.0	1,460
Primary	60.9	8,376	15.5	15.3	69.1	100.0	19.9	12.8	67.1	100.0	3,274
Secondary and higher	52.7	2,637	16.2	11.1	72.4	100.0	18.7	8.3	72.7	100.0	1,247
Total	61.0	15,351	15.1	14.6	70.1	100.0	19.0	12.1	68.8	100.0	5,981

Note: Total includes women with missing information or knowledge of signs of STIs

Among women who know of STIs, 70 percent know two or more specific symptoms of an STI in a male or in a female. Fifteen percent of women who know of STIs could not cite any symptoms in a male, and 15 percent could cite only one. Women appear even less knowledgeable about female symptoms of STI: 19 percent did not know of any symptoms, and 12 percent knew only one. Lack of knowledge of STIs is especially high among those age 15-19 (77 percent do not know of STIs), those who have never married (77 percent), those with no education (66 percent), and rural residents (63 percent).

14.8 SELF-REPORTING OF STIs OR SYMPTOMS OF STIs AND RESULTING ACTIONS TAKEN

The CDHS 2000 asked respondents who have ever had sex whether they had a sexually transmitted infection in the last 12 months. They were also asked whether they had experienced a genital sore or ulcer in the last 12 months. Although these symptoms have shown to be useful in identifying STIs in men, they are less useful in women, since symptoms of STIs in women are not often easily recognized. Furthermore, the reporting of STIs and recognized STI symptoms is subject to a downward bias (i.e., underreporting) due to the social stigma attached to STIs.

Table 14.9 shows that 2 percent of women reported an STI in the past 12 months, and 3 percent reported a sore or ulcer, for a total of 4 percent of women reporting either an STI or a sore or ulcer in the past 12 months. Urban women are more likely than rural women to report an STI or a symptom thereof. The pattern of reporting by education is unusual in that women with primary education are the least likely to report an STI or symptom (3 percent). Four percent of women with no education reported an STI or symptom in the past 12 months, and 5 percent of women with secondary education reported an STI or symptom. There is no consistent pattern of reporting by age, and those who are married are most susceptible to contracting an STI. Self-reporting of STIs or symptoms is high in Kaoh Kong (8 percent), Kampong Cham (8 percent), and Phnom Penh (7 percent).

Table 14.9 Self-reporting of sexually transmitted infections and STI symptoms

Percentage of women who have ever had sex by self-reporting of STI and/or associated symptoms in the 12 months preceding the survey, by background characteristics, Cambodia 2000

Background characteristic	Percentage with STI	Percentage with sore or ulcer	Percentage with STI or sore/ulcer	Number
Age				
15-19	1.2	2.9	2.9	468
20-24	2.5	2.3	3.6	1,105
25-29	1.5	2.1	2.8	1,773
30-39	2.3	3.3	3.9	4,031
40-49	1.7	2.8	3.4	3,108
Marital status				
Never married	*	*	*	18
Married	2.0	3.0	3.7	9,071
Divorced, separated, widowed	1.5	1.6	2.1	1,396
Residence				
Urban	3.4	2.9	4.2	1,672
Rural	1.7	2.8	3.4	8,813
Region				
Banteay Mean Chey	3.3	1.8	3.7	494
Kampong Cham	2.4	6.1	7.8	1,403
Kampong Chhnang	0.6	2.3	2.3	390
Kampong Spueu	0.7	1.2	1.2	552
Kampong Thum	0.3	0.7	0.7	515
Kandal	0.3	0.7	0.7	974
Kaoh Kong	6.5	6.7	8.1	116
Phnom Penh	4.4	5.1	6.8	970
Prey Veang	0.2	0.3	0.3	895
Pousat	0.3	1.2	1.2	312
Svay Rieng	2.3	2.9	3.6	500
Takaev	1.7	3.3	3.6	764
Bat Dambang/ Krong Pailin	4.3	4.3	5.2	707
Kampot/Krong Kaeb/ Krong Preah Sihanouk	2.0	1.8	2.6	687
Preah Vihear/Stueng Traeng/Kracheh	0.8	0.8	1.1	403
Mondol Kiri/Rotanak Kiri	0.8	2.0	2.3	130
Siem Reab/Otdar Mean Chey	2.8	3.3	3.5	674
Education				
No education	2.2	3.2	4.0	3,311
Primary	1.6	2.5	2.9	5,727
Secondary and higher	2.7	3.1	4.5	1,447
Total	2.0	2.8	3.5	10,485

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

Important factors in checking the spread of STIs are the treatment and prevention behaviors taken by those who have experienced an STI. Table 14.10 describes the actions taken by women who reported having an STI or a sore or ulcer in the past 12 months. Sixty-one percent of women sought advice or treatment, and almost as many informed all of their partners (57 percent); urban women were more likely than rural women to do either. A little more than one-third of women took medicine for their condition, and 27 percent ceased sexual activity. Only 14 percent of women used condoms as a result of their condition. Again, urban women were much more likely than rural women to take medicines, stop sexual activity, or use condoms. Those with more education were more likely to take action than those with less education, whether the action was in terms of seeking advice or treatment, informing partners, or taking preventative or curative steps. Those who were

Table 14.10 STIs and behavior

Among women who reported an STI or a sore or ulcer in the last 12 months, the percentage who sought advice or treatment, the percentage who informed their partner(s), and the percentage who took different action to avoid infecting their partner(s), by background characteristics, Cambodia 2000

Background characteristic	Sought advice/treatment	Informed all partners	Informed some partners	Action taken:					Number of women with STI/sore/ulcer	
				Stopped sexual activity	Used condom	Took medicine	Other	None/partner already infected		
Current age										
15-29	49.6	56.1	8.6	22.0	11.5	33.6	12.6	2.4	55.7	102
30-39	59.9	54.9	14.2	28.0	14.0	34.8	11.3	2.8	53.7	159
40-49	72.3	60.9	10.9	30.0	14.7	40.7	9.8	3.0	49.3	105
Marital status										
Never married	*	*	*	*	*	*	*	*	*	1
Married	61.5	60.9	12.1	28.0	14.7	38.3	12.3	2.7	50.7	336
Divorced, separated, widowed	51.6	14.1	5.4	12.7	0.0	12.6	0.0	2.9	80.0	30
Residence										
Urban	73.5	63.2	4.5	46.2	21.8	54.5	20.7	4.5	32.7	70
Rural	57.6	55.5	13.4	22.3	11.6	31.9	9.0	2.3	57.7	297
Education										
No education	51.4	46.8	15.2	15.6	8.1	26.6	4.8	1.5	68.6	134
Primary	63.1	59.7	11.7	28.1	13.3	37.0	7.6	2.9	47.8	168
Secondary and higher	73.1	70.7	4.4	46.9	25.3	53.8	33.9	4.9	34.3	65
Total	60.6	57.0	11.7	26.9	13.5	36.2	11.2	2.8	53.0	367

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

divorced, separated, or widowed were much less likely than married women to take preventive or curative action for an STI or a sore or ulcer; however, these results should be interpreted with caution due to the small number of women in this category.

14.9 SEXUAL BEHAVIOR

An important component of AIDS prevention programs is the promotion of safe sex, including encouraging monogamous relationships, discouraging multiple sexual partners, and promoting the use of condoms. Information on the sexual behavior of individuals is important in designing and monitoring intervention programs to control the spread of the disease since heterosexual contact promotes the transmission of HIV/AIDS. The CDHS 2000 included a series of questions to determine the proportion of currently married and unmarried women who had sexual intercourse with one or more nonmarital partners in the last 12 months. Table 14.11 shows the percent distribution of currently married and unmarried women by the number of persons with whom they had sexual intercourse in the 12 months preceding the survey by background characteristics.

It is clear from this table that women's sexual activity occurs primarily within the confines of marriage. Women who are unmarried report almost zero sexual activity, with the exception of Mondol Kiri/Rotanak Kiri, where 4 percent of unmarried women report having had a partner in the past 12 months. Women who are married are more likely to report not having had sex at all than to report having had sex with someone other than their spouse (3 percent compared with 0 percent).

Table 14.11 Number of sexual partners of married and unmarried women

Percent distribution of currently married women and unmarried women by number of persons with whom they had sexual intercourse in the past 12 months (including spouse for married women), by background characteristics, Cambodia 2000

Background characteristic	Married women					Unmarried women					
	Number of sexual partners including spouse				Total	Number of married women	Number of sexual partners			Total	Number of unmarried women
	0	1	2+	Does not know/missing			0	1+	Does not know/missing		
Current age											
15-19	1.4	98.5	0.0	0.0	100.0	438	99.9	0.1	0.0	100.0	3,180
20-29	2.6	97.0	0.0	0.4	100.0	1,009	99.2	0.5	0.3	100.0	973
25-29	3.0	96.7	0.0	0.3	100.0	1,612	99.5	0.5	0.0	100.0	505
30-39	2.4	97.2	0.0	0.4	100.0	3,561	99.5	0.1	0.4	100.0	801
40-49	3.7	96.1	0.1	0.1	100.0	2,451	99.9	0.0	0.1	100.0	821
Marital status											
Never married	NA	NA	NA	NA	NA	NA	99.8	0.1	0.0	100.0	4,884
Married	2.8	96.9	0.0	0.3	100.0	9,071	NA	NA	NA	NA	NA
Divorced, separated, widowed	NA	NA	NA	NA	NA	NA	99.3	0.4	0.3	100.0	1,396
Residence											
Urban	1.9	97.6	0.0	0.5	100.0	1,413	99.2	0.7	0.1	100.0	1,279
Rural	3.0	96.7	0.0	0.2	100.0	7,658	99.9	0.0	0.1	100.0	5,001
Region											
Banteay Mean Chey	1.6	98.2	0.0	0.2	100.0	451	100.0	0.0	0.0	100.0	221
Kampong Cham	5.3	93.6	0.0	1.0	100.0	1,212	99.7	0.0	0.3	100.0	748
Kampong Chhnang	2.2	97.8	0.0	0.0	100.0	326	98.9	0.9	0.2	100.0	257
Kampong Spueu	2.8	97.0	0.0	0.2	100.0	469	100.0	0.0	0.0	100.0	256
Kampong Thum	1.2	98.8	0.0	0.0	100.0	435	100.0	0.0	0.0	100.0	342
Kandal	2.0	97.8	0.0	0.2	100.0	832	100.0	0.0	0.0	100.0	637
Kaoh Kong	5.9	93.5	0.0	0.5	100.0	105	100.0	0.0	0.0	100.0	42
Phnom Penh	1.5	98.5	0.0	0.0	100.0	822	99.3	0.5	0.2	100.0	835
Prey Veang	3.1	96.7	0.2	0.0	100.0	769	100.0	0.0	0.0	100.0	502
Pousat	5.3	94.7	0.0	0.0	100.0	276	100.0	0.0	0.0	100.0	157
Svay Rieng	4.4	94.9	0.0	0.7	100.0	436	100.0	0.0	0.0	100.0	253
Takaev	1.2	98.8	0.0	0.0	100.0	676	100.0	0.0	0.0	100.0	431
Bat Dambang/ Krong Pailin	2.1	97.9	0.0	0.0	100.0	627	100.0	0.0	0.0	100.0	457
Kampot/Krong Kaeb/ Krong Preah Sihanouk Preah Vihear/Stueng	1.8	97.4	0.0	0.8	100.0	586	99.4	0.6	0.0	100.0	413
Traeng/Kracheh	1.3	98.3	0.0	0.4	100.0	358	99.7	0.0	0.3	100.0	224
Mondol Kiri/Rotanak Kiri Siem Reab/Otdar Mean Chey	2.3	97.2	0.5	0.0	100.0	113	96.3	3.7	0.0	100.0	47
4.6	95.4	0.0	0.0	100.0	578	99.8	0.0	0.2	100.0	458	
Education											
No education	3.7	95.9	0.0	0.4	100.0	2,798	99.5	0.2	0.3	100.0	1,540
Primary	2.6	97.2	0.0	0.2	100.0	4,960	99.7	0.2	0.0	100.0	3,416
Secondary and higher	2.0	97.7	0.0	0.3	100.0	1,314	99.9	0.1	0.0	100.0	1,324
Total	2.8	96.9	0.0	0.3	100.0	9,071	99.7	0.2	0.1	100.0	6,280

NA = Not applicable

It would be programmatically informative to collect information on sexual behavior from men as well as women in the future. HIV/AIDS is estimated by the Ministry of Health (2000) to affect 1 out of every 80 people in Cambodia, and information on sexual behavior from women alone is insufficient to determine the pathways by which HIV travels in this country.

14.10 KNOWLEDGE AND USE OF CONDOMS

Condom knowledge and use play an important role in preventing the transmission of HIV/AIDS. Table 14.12 gives a breakdown of female respondents who know of HIV/AIDS and who

Table 14.12 Knowledge and use of male condoms

Among women who know of HIV/AIDS and who have had sexual intercourse, percentage who know about condoms, and among those who know about condoms, percentage who know a source for condoms and who could get condoms themselves, percentage who used a condom during last sex, and percentage who use condoms for family planning but did not use during last sex, by background characteristics, Cambodia 2000

Background characteristic	Knows about condoms	Number of women who know HIV/AIDS and have had sex	Percentage who know:				Percentage who used condom:				Number of women who know HIV/AIDS/ have had sex/know condom	
			Public medical source		Private medical source		During last sex		For family planning but did not use during last sex			
			Other source	Other source	Earlier	Last month	Earlier	Last month				
Age												
15-19	91.0	431	23.7	4.9	21.6	66.4	33.2	66.8	1.0	0.1	0.3	392
20-24	90.4	1,051	23.7	5.4	25.3	61.8	36.2	63.8	1.0	0.0	0.4	950
25-29	91.4	1,675	25.7	6.8	26.1	60.3	38.5	61.6	1.2	0.1	0.0	1,532
30-39	91.9	3,875	23.7	5.6	24.8	61.9	37.0	63.0	0.9	0.3	0.4	3,561
40-49	91.9	2,977	20.4	4.7	22.6	66.9	31.9	68.2	0.8	0.2	0.2	2,737
Marital status												
Never married	*	16	*	*	*	*	*	*	*	*	*	15
Married	91.9	8,662	23.4	5.6	24.6	62.6	36.2	63.8	1.0	0.2	0.3	7,958
Divorced, separated, widowed	90.0	1,331	21.0	4.4	21.7	68.0	30.5	69.5	0.1	0.0	0.2	1,199
Residence												
Urban	97.9	1,635	26.3	8.1	47.2	43.3	55.8	44.3	2.1	0.3	0.5	1,601
Rural	90.4	8,375	22.4	4.9	19.4	67.5	31.2	68.9	0.7	0.2	0.2	7,571
Region												
Banteay Mean Chey	86.0	415	15.1	17.8	3.3	70.2	26.7	73.3	1.2	0.3	0.5	357
Kampong Cham	81.2	1,294	14.3	3.0	9.2	80.7	18.9	81.1	1.4	0.2	0.0	1,050
Kampong Chhnang	90.3	385	35.7	1.5	18.7	59.4	37.6	62.4	0.5	0.2	0.3	348
Kampong Speu	85.9	520	8.6	2.8	10.1	87.8	10.8	89.2	0.2	0.0	0.2	447
Kampong Thum	88.9	508	11.5	1.3	9.9	85.5	14.5	85.5	0.4	0.2	0.0	452
Kandal	98.5	972	7.4	1.7	19.5	77.7	21.6	78.4	0.7	0.0	0.2	957
Kaoh Kong	86.3	113	9.0	5.3	12.1	81.3	18.7	81.3	0.6	0.0	0.4	97
Phnom Penh	99.7	970	13.5	4.2	70.7	26.3	73.0	27.0	3.5	1.2	0.6	967
Prey Veang	96.0	894	55.7	8.4	27.0	33.7	65.4	34.6	0.0	0.0	0.2	858
Pousat	94.9	308	21.0	2.5	8.6	71.6	25.2	74.8	0.3	0.0	0.4	293
Svay Rieng	94.9	470	12.1	2.2	5.5	84.7	15.1	85.1	0.3	0.0	0.5	445
Takaev	97.3	762	35.3	11.8	37.4	52.8	44.6	55.6	0.5	0.2	0.3	742
Bat Dambang/Krong Pailin	95.4	699	40.8	12.3	42.5	49.7	49.2	50.8	0.7	0.0	0.0	667
Kampong/Krong Kaeab/												
Krong Preah Sihanouk	95.2	680	14.9	6.4	10.2	79.6	19.4	80.9	0.4	0.0	1.0	647
Preah Vihear/Stueng Traeng/												
Kracheh	86.8	285	24.0	1.8	5.2	72.1	22.9	77.1	1.7	0.0	0.0	248
Mondol Kiri/Rotanak Kiri	66.3	83	30.9	4.3	9.4	62.3	35.6	64.4	2.9	0.8	0.4	55
Siem Reab/Otdar Mean Chey	83.4	651	34.3	2.5	28.5	58.6	40.8	59.2	0.5	0.0	0.0	543
Education												
No education	85.6	3,033	18.4	4.7	16.5	73.2	25.9	74.2	0.1	0.1	0.1	2,598
Primary	93.2	5,544	23.2	5.1	22.1	64.9	33.7	66.3	1.0	0.2	0.3	5,167
Secondary and higher	98.3	1,432	31.2	8.5	46.9	39.1	59.4	40.6	2.3	0.4	0.5	1,407
Total	91.6	10,010	23.1	5.5	24.3	63.3	35.5	64.6	0.9	0.2	0.3	9,172

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

have had sexual intercourse by their knowledge of condoms. Most women (92 percent) know about condoms. The high levels of knowledge of condoms vary little by age or marital status; however, urban women are more likely to know about condoms than rural women (98 percent compared with 90 percent), and knowledge varies positively with education (86 percent of women with no education versus 98 percent of women with secondary education). Among women who know about condoms, 37 percent also know a source for condoms, and 36 percent could get a condom herself if they needed to. Overall, 65 percent of women who know about condoms do not have access to condoms, since they do not know a place to get one or because they could not get one if they needed to.

Among women who know condoms, few actually use them: 1 percent used a condom during last sex, and less than 0.5 percent reported that they use condoms for family planning but did not use them during last sex.

Sexual intercourse with nonmarital partners carries a higher risk of HIV/AIDS transmission because such relationships are usually more temporary and are often associated with exposure to multiple sex partners. AIDS prevention programs therefore often emphasize the practice of safe sex, especially among nonmarital or noncohabiting partners. Table 14.13 presents the percentage of women who had sexual intercourse in the 12 months before the survey and who used a condom during their last sexual intercourse by type of partner and background characteristics.

The use of condoms during last sexual intercourse with a spouse or any partner is negligible among women (1 percent) and there is almost no difference according to the type of partner. Use of condoms varies marginally but consistently with age, with more women using condoms at older ages, and urban women are three times as likely to use condoms as rural women. Women with the highest levels of education use condoms the most, and those with no education use them the least.

Table 14.13 Use of condoms by type of partner

Percentage of women who have had sexual intercourse in the 12 months preceding the survey who used a condom during last sexual intercourse with spouse and with any partner, by selected background characteristics, Cambodia 2000

Background characteristic	Spouse		Any partner	
	Percentage	Number	Percentage	Number
Age				
15-19	0.8	441	1.0	443
20-24	0.7	1,000	1.0	1,011
25-29	1.0	1,575	1.3	1,582
30-39	1.1	3,500	1.2	3,511
40-49	1.2	2,382	1.2	2,385
Marital status				
Never married	NA	NA	*	6
Married	1.1	8,774	1.1	8,796
Divorced, separated, widowed	0.0	123	0.9	131
Residence				
Urban	2.4	1,400	2.7	1,412
Rural	0.8	7,497	0.9	7,521
Region				
Banteay Mean Chey	1.0	447	1.2	448
Kampong Cham	1.1	1,140	1.5	1,154
Kampong Chhnang	0.7	329	0.7	332
Kampong Spueu	0.2	458	0.2	460
Kampong Thum	0.6	440	0.6	440
Kandal	0.8	825	0.8	825
Kaoh Kong	0.6	99	0.6	99
Phnom Penh	5.0	814	5.5	821
Prey Veang	0.0	753	0.0	753
Pousat	0.3	266	0.3	266
Svay Rieng	0.4	416	0.4	417
Takaev	0.7	677	0.7	677
Bat Dambang/ Krong Pailin	0.8	621	0.8	622
Kampot/Krong Kaeb/ Krong Preah Sihanouk	0.4	587	0.4	590
Preah Vihear/Stueng				
Traeng/Kracheh	1.1	358	1.1	358
Mondol Kiri/Rotanak Kiri	0.6	112	1.8	114
Siem Reab/Otdar				
Mean Chey	0.5	556	0.5	557
Education				
No education	0.2	2,724	0.2	2,731
Primary	1.0	4,877	1.3	4,899
Secondary and higher	2.9	1,296	2.8	1,302
Total	1.0	8,897	1.2	8,933

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

To examine the status of women in Cambodia, the CDHS 2000 included a special women's status module of questions. The study of women's status and empowerment is important on its own, but takes on a special significance in conjunction with the study of demographic and health outcomes. Women are the targets directly or indirectly (as the caretakers or their children) of a number of population, health, and nutrition programs. The constraints that women face in learning about, accessing, and utilizing these and other developmental programs are inherently tied to their status in society, as well as in their home. Monitoring and evaluating indicators of women's status and empowerment that incorporate measures of women's traditional rights and entitlements as well as their individual levels of financial and decisionmaking autonomy are critical to designing and improving population, health, and nutrition programs to better anticipate and meet the needs of women and their children.

Recognizing the multifaceted nature of women's status and empowerment, the women's status module included questions that explore various aspects of women's status and empowerment, including women's role in selecting their spouse, degree of participation in household decision-making, spousal communication, control over household income and expenditures, ownership of assets, degree of isolation from natal families, participation in civil society, and knowledge of various laws related to women's rights. The module also contained a set of three questions that explore women's beliefs about gender roles. Information from the women's status module is designed to be complementary to the marriage, education, and employment information discussed earlier.

The women's status module was implemented in one-fourth of the households included in the CDHS 2000 sample. Thus, the women's status subsample comprised all eligible women (women age 15-49) in one out of every four selected sample households and yielded a total of 3,741 weighted completed interviews.

15.1 MARRIAGE PATTERNS

Marriage patterns are greatly influenced by culture and tradition, and their study often yields important insights into women's status and empowerment in society, as well as in their marriage. At the individual level, various aspects of a woman's marriage are likely to affect the amount of autonomy and control she has in her married life. The CDHS 2000 found that the majority of marriages in Cambodia do not involve the signing of a marriage contract in front of the civil authorities. Overall, only one-fifth of ever-married women reported that they signed a marriage contract in front of the Sangkat or commune authorities (data not shown). The CDHS 2000 also collected information on the following important aspects of marriage patterns in Cambodia: the degree of women's participation in spouse selection and the age and education differences between women and their husbands.

Spouse selection

The CDHS 2000 asked ever-married women how long they had known their husband before their marriage and who chose their husband for them. For women who were married more than once, these questions refer to their current or most recent husband only. Table 15.1 shows the length of time women knew their husband before marriage, as well as the persons involved in the choice of the husband by background characteristics.

Forty-three percent of ever-married women in Cambodia met their husband for the first time at the time of marriage. An additional 7 percent knew their husband for less than one month before their marriage. These data suggest that half of all ever-married women were married to relative strangers. The likelihood that a woman met her husband for the first time at the time of marriage varies little by the woman's age at first marriage and by urban-rural residence but does increase with women's current age. Only 34 percent of ever-married women currently age 15-19 met their husband for the first time at the time of marriage, compared with 42 to 43 percent of women age 20-39 and 48 percent of women age 40-49. This suggests that this practice may be declining over time. Currently, this practice is slightly more common among the more educated women than among the less educated women. Forty-nine percent of women who have had secondary or higher education met their husband for the first time at the time of marriage, compared with 42 to 43 percent of women with no education or only primary education. This practice is most common in Kampong Cham, where 72 percent of women met their husband for the first time at the time of marriage, and least common in Kampot/Krong Kaeb/Krong Preah Sihanouk, where only 21 percent of women did so. Women who signed a marriage contract are somewhat more likely (48 percent) to have met their husband for the first time at the time of marriage than women who did not sign a contract (42 percent).

In keeping with the finding that almost half of the women in Cambodia marry men they have not met before the marriage ceremony, the second vertical panel of Table 15.1 shows that few women choose their own husband. Only 16 percent of ever-married women chose their husband (chose alone or the respondent and her husband chose each other jointly). In addition, 6 percent of women chose their husband jointly with someone else. The remaining majority of women (78 percent) did not participate at all in the choice of their husband. For one-half of all ever-married women, the husband was chosen by their own family only.

Self-choice of husband (alone or jointly with the husband) varies little by current age and by age at first marriage. Nonetheless, the oldest women (age 40-49) are slightly less likely to have chosen their husband than younger women, and women who were married at age 25 or older are more likely than women who married at younger ages to have chosen their own husband. Urban women (20 percent) are more likely than rural women (15 percent) to have chosen their own husband. The likelihood of self-choice declines slightly with the respondent's level of education. Twenty-one percent of women with no education chose their own husband, compared with 12 percent of women with secondary or higher education. By region, self-choice of spouse is most common in Mondol Kiri/Rotanak Kiri, where more than half (54 percent) of women say that they chose their own husband, followed by Siem Reab/Otdar Mean Chey (47 percent) and Banteay Mean Chey (33 percent). Women in Kampong Cham and Kampong Spueu (each 3 percent) are least likely to have chosen their own husband. Notably, 32 percent of women who signed a contract at the time of marriage chose their own husband, compared with only 12 percent of women who did not sign a contract. This suggests that contracts are probably more common at marriages where parents are not involved in the choice of the spouse for their daughter than in marriages where they are involved.

Table 15.1 Choice of spouse

Percent distribution of ever-married women by length of time they knew their husband before marriage and degree of involvement in spouse selection, according to background characteristics, Cambodia 2000

Background characteristic	Length of time woman knew husband before marriage:					Person who chose husband:									
	Met on wedding day	Knew less than 1 month	Knew less than 1 year	Knew 1 year or more	Knew since childhood	Respondent	Respondent and husband	Respondent with someone else	Respondent's family	Husband or his family	Someone else	Forced by husband	Missing	Total	Number
Age															
15-19	34.2	4.5	18.5	13.4	28.1	7.8	9.5	4.8	50.7	23.5	1.4	0.9	1.4	100.0	118
20-29	42.5	7.6	12.6	9.7	26.6	8.5	6.4	6.3	55.9	20.8	0.8	0.3	1.0	100.0	678
30-39	41.5	6.0	13.4	13.1	25.2	9.2	8.9	5.8	48.6	23.6	0.3	0.3	0.6	100.0	1,032
40-49	47.9	7.4	12.7	11.3	20.2	6.9	5.6	5.3	48.5	22.4	8.9	2.0	0.4	100.0	790
Age at first marriage															
< 16	42.5	6.7	9.8	10.9	29.8	9.9	4.9	5.3	59.4	17.5	2.5	0.2	0.3	100.0	277
16-18	42.6	5.7	12.1	11.5	26.8	7.1	8.8	5.3	52.8	20.4	3.9	0.7	1.0	100.0	959
19-21	42.9	7.5	13.7	12.2	23.0	7.8	6.2	6.1	50.7	23.6	4.1	0.8	0.7	100.0	494
22-25	43.8	7.2	16.3	12.0	19.8	8.1	6.1	6.7	44.3	26.1	5.9	2.1	0.6	100.0	404
25 +	45.5	7.7	14.3	11.8	20.6	10.3	7.8	5.5	46.3	25.3	4.2	0.4	0.2	100.0	484
Education															
No education	42.2	6.5	12.5	12.3	26.3	12.6	8.1	4.6	48.4	20.2	4.8	1.3	0.0	100.0	812
Primary	42.7	6.7	13.7	11.5	24.2	6.2	7.3	6.0	51.8	22.4	4.5	0.8	1.1	100.0	1,480
Secondary and higher	49.4	7.6	12.8	11.1	18.6	6.9	5.0	7.5	50.3	28.7	0.9	0.2	0.4	100.0	326
Residence															
Urban	41.5	9.8	14.1	16.7	16.4	10.9	8.7	8.9	43.3	23.7	3.1	0.7	0.6	100.0	411
Rural	43.7	6.2	13.0	10.8	25.6	7.8	7.0	5.1	51.9	22.3	4.3	0.9	0.7	100.0	2,207
Region															
Banteay Mean Chey	55.9	2.8	5.7	7.9	19.9	30.6	2.1	1.4	25.4	29.0	4.3	1.4	5.8	100.0	128
Kampong Cham	71.8	3.1	3.8	2.5	18.8	1.9	1.9	0.0	86.2	6.9	2.5	1.2	0.0	100.0	381
Kampong Chhnang	24.6	9.9	15.3	18.4	31.9	3.5	7.3	0.0	33.6	38.5	13.8	2.6	0.0	100.0	98
Kampong Speu	54.0	1.3	11.5	9.0	24.3	1.3	1.9	3.5	88.8	1.9	2.5	0.0	0.0	100.0	144
Kampong Thum	47.7	4.0	5.9	23.5	18.3	7.8	1.3	0.6	53.7	29.3	5.9	0.6	0.7	100.0	130
Kandal	27.1	13.1	30.0	12.4	16.6	6.9	7.5	7.8	59.8	11.0	5.6	0.7	0.7	100.0	239
Kaoh Kong	56.8	11.7	11.1	8.6	11.4	3.6	5.7	1.8	45.9	30.4	10.9	1.3	0.4	100.0	30
Phnom Penh	43.6	6.9	24.5	15.7	8.0	9.1	4.8	18.4	39.9	24.0	3.2	0.0	0.6	100.0	216
Prey Veaeang	32.5	2.8	10.4	10.3	43.9	9.7	5.5	11.0	66.7	6.4	0.7	0.0	0.0	100.0	217
Pousat	36.3	7.1	14.6	13.3	27.6	0.0	14.8	0.6	23.6	49.5	9.2	1.9	0.6	100.0	82
Svay Rieng	33.4	8.6	11.4	9.7	34.1	6.2	15.1	8.5	33.4	31.6	2.3	0.0	2.9	100.0	133
Takaev	51.5	7.6	9.5	6.3	25.1	2.5	3.2	3.8	34.6	50.9	5.0	0.0	0.0	100.0	181
Bat Dambang/ Krong Pailin	47.6	6.8	9.3	22.9	13.4	1.5	12.7	9.5	18.6	53.5	4.1	0.0	0.0	100.0	173
Kampot/Krong Kaeb/ Krong Preah Sihanouk	21.1	13.8	18.2	12.0	34.9	12.4	10.9	6.6	54.4	11.5	2.8	0.7	0.7	100.0	162
Preah Vihear/Siueang	45.3	2.3	12.6	10.9	29.0	9.4	6.0	4.8	51.2	22.4	5.6	0.5	0.0	100.0	102
Traeang/Kracheh	33.8	10.0	17.8	24.7	12.5	36.8	17.2	2.9	12.3	25.7	3.4	0.5	1.2	100.0	31
Mondol Kiri/ Rotanak Kiri	22.8	10.8	15.4	14.0	37.0	23.2	23.9	4.4	24.3	16.9	3.2	4.0	0.0	100.0	170
Siem Reab/Otdar Mean Chey	47.8	5.5	11.4	10.4	21.5	20.3	11.3	4.8	39.4	10.2	7.2	3.7	3.1	100.0	523
Marriage contract	42.3	7.1	13.7	12.0	24.8	5.3	6.3	6.0	53.4	25.6	3.4	0.1	0.1	100.0	2,095
Yes	43.4	6.8	13.2	11.7	24.2	8.3	7.3	5.7	50.6	22.5	4.2	0.8	0.7	100.0	2,618
No															
Total															

Note: The table is based on information for the current or most recent husband.

Comparison of the age and education of wives and husbands

In the CDHS 2000, information on husband's education is available for the current husband of currently married women and for the most recent husband of women who were formerly married. However, information on the husband's age is available only for the current husband of currently married women. Thus, Table 15.2 shows data on interspousal age and education differences by background characteristics only for currently married women.

Currently married Cambodian women are, on average, only 2.9 years younger than their husband. Notably, 13 percent of women are at least two or more years older than their husband, and another 26 percent are about the same age (husband younger or older by no more than one year). Only 9 percent of all currently married women are married to men who are ten or more years older than them. The mean spousal age difference is higher for currently married women age 15-19 (five years) than for older women (two to three years) and declines sharply with age at first marriage. Women who were married before age 16 are, on average, five years younger than their husband, compared with women who married at age 25 or older, who are, on average, only about one year younger than their husband. Notably, women who married before age 16 are more than two times as likely as women who married at age 19 and above to be at least ten years younger than their husband. The youngest women and women who married before age 16 are also much less likely than other women to be older than or similar in age to their husband. These data clearly indicate that women who marry at a very young age are more likely than other women to marry men who are much older than them. The mean spousal age difference does not vary greatly by either the education of the woman or the education of the husband; however, women who are themselves uneducated or who have a husband who is uneducated are somewhat more likely to be married to men who are at least 10 years older than them. In addition, the likelihood that a woman is older than her husband declines sharply with the woman's education, as well as the education of the husband. About one-fifth of women who have no education (17 percent) or whose husbands have no education (18 percent) are at least two years older than their husband, compared with about one-tenth of women who themselves or whose husbands have secondary or higher education. The spousal age difference varies little between women who signed a marriage contract and those who did not; nonetheless, women who signed a marriage contract are somewhat more likely (13 percent) than women who did not (8 percent) to be ten or more years younger than their husband.

Marriage patterns in terms of spousal age differences also differ by urban-rural residence and region. Spousal age difference is, on average, almost two years greater for urban women than for rural women. Forty-one percent of rural women are about the same age or older than their husband compared with 29 percent of urban women. The mean age difference of husbands and wives ranges from a high of about 4.0 to 4.2 years in Phnom Penh, Banteay Mean Chey, and Preah Vihear/Stueng Traeng/Kracheh to a low of 1.9 years in Prey Veang and Takaev. Almost one in five women are married to men at least ten years older in Bat Dambang/Krong Pailin and Banteay Mean Chey.

Table 15.2 also shows differences in education between currently married women and their husbands by background characteristics. Women are most likely to be married to men who have more years of education than they do. Overall, 15 percent of women have more education than their husband and 59 percent have less education than their husband. Twenty-five percent of women are married to men who have the same number of years of education as themselves, including 9 percent of uneducated women married to men with no education. On average, husbands have 1.9 more years of education than their wives. The mean interspousal educational difference

Table 15.2. Differences in age and education between spouses

Percent distribution of currently married women by interspousal age difference, and by difference in years of education, and mean age and educational differences, according to background characteristics, Cambodia 2000

Background characteristic	Interspousal age differential					Interspousal education differential					Mean difference in years of education (husband-wife)	Number				
	About the same age (difference -1 to +1 year)		Husband older than wife by:			Missing	Total	Mean difference in age (husband-wife)	Husband better educated	Wife better educated			Both have equal education	Neither educated	Does not know/missing	Total
	Wife older by 2+ years	-1 to +1 year	2-4 years	5-9 years	10+ years											
Age																
5-19	1.0	13.0	35.7	32.9	16.1	1.3	100.0	5.4	54.8	10.8	17.4	15.5	1.4	100.0	108	
20-29	6.8	26.3	34.9	23.5	7.3	1.1	100.0	3.2	59.5	15.2	18.1	5.8	1.4	100.0	615	
30-39	16.8	30.3	29.1	17.3	6.1	0.3	100.0	2.1	57.6	15.9	14.3	11.0	1.4	100.0	908	
40-49	17.0	21.8	26.1	21.1	13.5	0.5	100.0	3.2	60.3	15.1	14.5	8.8	1.3	100.0	614	
Age at first marriage																
< 16	3.3	16.4	31.5	30.5	16.6	1.7	100.0	4.9	60.3	10.8	12.9	14.5	1.4	100.0	234	
16-18	5.6	23.1	35.4	26.5	9.1	0.3	100.0	3.7	59.2	15.1	15.4	9.8	0.5	100.0	826	
19-21	13.6	28.6	31.0	18.3	7.6	1.0	100.0	2.6	55.6	16.6	19.2	6.3	2.4	100.0	431	
22-25	26.3	34.2	18.7	11.8	7.9	1.1	100.0	1.5	59.3	16.3	14.1	9.2	1.2	100.0	336	
25 +	23.8	28.1	27.8	14.0	6.4	0.0	100.0	1.4	59.7	15.9	14.6	8.1	1.7	100.0	417	
Education																
No education	16.6	23.6	26.5	20.0	12.9	0.3	100.0	3.1	69.8	0.0	0.0	30.1	0.1	100.0	683	
Primary	12.2	27.2	32.5	20.3	6.8	0.9	100.0	2.7	58.2	20.7	19.5	0.0	1.6	100.0	1,277	
Secondary and higher	10.9	26.7	28.7	24.7	9.1	0.1	100.0	3.3	34.5	27.5	35.1	0.0	2.8	100.0	284	
Husband's education																
No education	18.3	25.6	27.1	17.5	10.9	0.5	100.0	2.9	0.0	34.9	0.0	64.9	0.1	100.0	317	
Primary	14.1	25.7	31.6	19.4	8.5	0.8	100.0	2.7	62.0	16.9	20.2	0.0	0.7	100.0	1,229	
Secondary and higher	10.0	27.1	29.4	24.3	8.7	0.5	100.0	3.2	81.2	3.4	14.6	0.0	0.8	100.0	685	
Residence																
Urban	10.4	18.9	27.7	29.1	13.2	0.7	100.0	4.2	65.6	13.0	16.4	3.8	1.1	100.0	338	
Rural	13.9	27.3	30.6	19.3	8.2	0.6	100.0	2.6	57.5	15.7	15.4	10.2	1.3	100.0	1,906	
Region																
Banteay Mean Chey	14.3	18.4	27.8	20.6	18.1	0.8	100.0	4.2	57.0	11.1	9.5	19.2	3.2	100.0	114	
Kampong Cham	12.2	28.3	29.1	21.7	7.9	0.8	100.0	2.7	57.1	13.0	16.1	11.5	2.3	100.0	312	
Kampong Chhnang	18.3	33.6	17.8	23.8	6.6	0.0	100.0	2.3	61.8	14.3	13.5	7.1	3.4	100.0	85	
Kampong Speu	13.3	26.6	32.2	20.2	7.6	0.0	100.0	2.6	54.8	12.4	16.1	16.7	0.0	100.0	120	
Kampong Thum	12.7	30.2	30.2	20.6	4.8	1.6	100.0	2.4	55.6	19.8	17.5	6.4	0.8	100.0	107	
Kandal	16.7	26.7	25.4	23.5	6.9	0.8	100.0	2.5	62.4	22.6	10.8	4.2	0.0	100.0	197	
Kaoh Kong	7.2	19.4	41.4	25.5	4.8	1.7	100.0	3.1	59.0	14.5	8.7	17.0	0.8	100.0	26	
Phnom Penh	11.8	20.8	25.5	26.0	15.9	0.0	100.0	4.1	66.3	17.5	13.9	0.0	2.3	100.0	2.5	
Prey Veang	12.5	34.8	32.8	18.3	11.2	0.0	100.0	1.9	65.4	9.0	18.2	7.4	0.0	100.0	182	
Poulat	10.4	30.8	20.4	24.9	11.2	2.3	100.0	3.5	58.5	18.4	16.9	4.8	1.5	100.0	70	
Svay Rieng	16.4	25.4	36.9	13.0	7.0	0.6	100.0	2.3	63.7	13.9	17.3	3.8	1.3	100.0	119	
Takaeu	16.2	31.6	30.2	16.3	5.1	0.7	100.0	1.9	60.0	12.0	21.8	4.2	2.1	100.0	164	
Bat Dambang/Krong Pailin	16.3	17.3	23.3	22.6	19.0	1.5	100.0	3.8	62.8	16.0	16.6	4.5	0.0	100.0	158	
Kampot/Krong Kaeb/																
Krong Preah Sihanouk	14.8	24.4	41.6	10.8	7.2	1.1	100.0	2.3	56.4	18.4	18.7	5.0	1.6	100.0	133	
Preah Vihear/Stueng Traeng/																
Kracheh	4.5	25.6	34.9	26.7	8.3	0.0	100.0	4.0	46.5	24.4	17.3	11.0	0.7	100.0	93	
Mondul Kiri/Rotanak Kiri	8.6	21.9	34.1	23.1	12.3	0.0	100.0	3.5	30.8	2.6	4.2	62.4	0.0	100.0	1.1	
Siem Reap/Otdar Mean Chey	10.5	19.8	39.8	22.2	7.8	0.0	100.0	3.2	49.5	14.3	12.6	22.9	0.7	100.0	148	
Marriage contract																
Yes	11.9	27.3	25.6	21.4	13.2	0.7	100.0	3.5	55.7	14.7	11.6	15.9	2.1	100.0	422	
No	13.7	25.8	31.3	20.6	7.9	0.6	100.0	2.7	59.4	15.4	16.4	7.7	1.1	100.0	1,823	
Total	13.4	26.1	30.2	20.8	8.9	0.6	100.0	2.9	58.7	15.3	15.5	9.2	1.3	100.0	2,245	

Note: The table is based on information for the current husband only.

(husband's education minus wife's education) decreases with the wife's education but increases with the husband's education. The more educated a woman, the less likely she is to have a husband who has more education, but the more educated the husband the more likely he is to have a wife with less education. Only 35 percent of women who have secondary education are less educated than their husband, whereas 81 percent of women whose husbands have secondary education are less educated than their husband.

Urban women are somewhat more likely than rural women to be married to men who are more educated than themselves, but given the much higher levels of illiteracy in rural areas than in urban areas, urban women are much less likely than rural women to be in a marriage in which both husband and wife are uneducated. In Mondol Kiri/Rotanak Kiri, 62 percent of women are uneducated and married to uneducated men. With the exception of this region, in all other regions, the proportion of women who are in marriages in which both the husband and wife are uneducated ranges from 23 percent in Siem Reab/Otdar Mean Chey to 0 percent in Phnom Penh. Women in Phnom Penh are also more likely than women in any other region to be married to men who have more education. Women who signed a marriage contract are about twice as likely to be uneducated and married to men who are uneducated as women who did not sign a marriage contract.

15.2 INTERSPOUSAL COMMUNICATION

The degree of interspousal communication provides insight into the nature of women's current marital relationships. In addition, marriages based on a free flow of communication are likely to be more conducive to the promotion and adoption of several of the demographic and health behaviors and outcomes of interest. The CDHS 2000 asked currently married women, "Do you and your husband talk about the following with each other often, sometimes, or never: a) Things that happen at his work/on the farm? b) Things that happen at home? c) What to spend money on? and d) Things that happen in the community?" Topics that would be considered critical or essential were not included in this list, since such topics must necessarily be discussed. Instead, the topics included in the question were deliberately chosen to be those that are likely to be discussed by persons who are not just married to each other but are also friends with each other. Table 15.3 shows the percentages of women who said that they communicated often with their spouse on each of the specified topics by background and marriage characteristics.

Few currently married women (5 percent) talk often with their husband about all of the listed topics. However, 46 percent talk often with their husband about what money should be spent on, and 44 percent talk often about things that happen at home. Only 24 percent talk often about things that happen at work or on the farm, and even fewer (7 percent) talk about things that happen in the community. Overall, 42 percent of currently married women say that they do not often talk to their husband about any of the four topics. More than half (53 percent) of women age 15-19 do not discuss the four topics often with their husband, compared with two-fifths of the women (40 to 42 percent) age 20-49. Women who have secondary or higher education are only slightly more likely than women with no education or only primary education to discuss each of the topics with their husband, with the exception of the topic "what to spend money on." Women with no education are more likely than women with education to often discuss what to spend money on. An examination of the degree of interspousal communication by different characteristics of the marriage shows that all four topics are least likely to be discussed by women in marriages in which both husband and wife are uneducated (2 percent) and most likely to be discussed by women who have been married more than once (8 percent). On the other hand, all four topics are least likely

Table 15.3 Spousal communication

Percentage of currently married women who talk often with their spouse about specific topics, by background and marital characteristics, Cambodia 2000

Background characteristic	Percentage who talk with spouse often about:						Number
	Things that happen at work/farm	Things that happen at home	What to spend money on	Things that happen in community	All four specified topics	None of the topics	
Age							
15-19	17.7	34.7	34.5	2.4	0.9	52.9	108
20-29	24.4	43.7	45.5	6.7	4.4	42.4	615
30-39	23.6	46.1	47.7	6.7	4.8	41.4	908
40-49	26.9	43.9	47.4	7.6	6.1	39.6	614
Education							
No education	22.3	44.1	49.8	6.9	4.3	39.8	683
Primary	24.6	43.7	44.9	5.8	4.6	42.2	1,277
Secondary and higher	28.8	47.3	45.0	10.4	7.0	43.8	284
Interspousal education differential							
Husband better educated	23.6	43.8	47.1	7.1	5.3	41.9	1,318
Wife better educated	24.7	43.1	43.3	8.5	6.3	42.4	343
Both have equal education	28.3	46.4	44.2	5.3	3.7	42.5	349
Neither educated	21.4	43.5	49.2	3.9	1.7	39.6	207
Interspousal age difference							
Wife older than husband by 2+ years	21.6	43.9	46.7	8.9	6.0	41.5	300
About the same age (difference +1 to -1 year)	23.9	47.4	48.4	7.1	5.3	39.0	585
Husband older than wife by:							
2-4 years	27.3	44.2	46.1	4.5	3.4	40.9	678
5-9 years	25.6	42.4	44.9	7.2	5.3	44.6	467
10+ years	19.1	41.0	45.0	9.0	5.3	44.6	200
Marriage contract							
Yes	23.4	38.0	41.4	8.8	7.3	45.7	422
No	24.7	45.7	47.5	6.2	4.3	40.8	1,823
Duration of marriage							
<5 years	19.2	42.1	41.0	4.0	3.0	46.8	332
5-10 years	28.0	46.3	50.4	7.6	4.5	37.7	528
10 years or more	24.0	43.5	45.0	6.6	5.0	42.8	1,195
Married more than once	26.4	47.5	53.4	9.6	7.8	37.0	190
Total	24.4	44.3	46.4	6.7	4.8	41.7	2,245

Note: Total includes 29 women for whom information on interspousal education differential is not available, and 14 women for whom information on interspousal age differential is not available.

to be discussed often by women who are five or more years younger than their husband, women who signed a marriage contract, and women recently married (duration of marriage is less than 5 years). At least 45 percent of these women say that they do not discuss all four topics often with their husband. Overall, however, the most striking feature of these data is the extremely limited amount of communication between husbands and wives on these selected topics in all subgroups of the population.

15.3 DECISIONMAKING WITHIN HOUSEHOLDS

To assess women's role in household decisionmaking, the CDHS 2000 asked women who in their family usually has the final say on six different types of decisions: visits to family, friends, or relatives; making household purchases for daily needs; making large household purchases; whether the respondent should work to earn money; whether to use contraception; and the respondent's own health care. In addition, women who had one or more living children were also asked who in their household usually had the final say on decisions about children's schooling, what to do if the child falls sick, and whether to have another child. Women's participation in household decisions, at a minimum in decisions about themselves and decisions about their children, is an important measure of their empowerment. The percent distribution of women according to the person who has the final say in different decisions is shown in Table 15.4. The data are presented separately for women who are currently married and women who are not currently married.

Table 15.4 shows that currently married women rarely have the final say alone in any of the listed decisions, with the exception of decisions about daily household purchases. In decisions about daily household purchases, 70 percent of the women say that they alone have the final say. In all other decisions, currently married women are most likely to have the final say jointly with their husband. Even decisions about their own health care are made alone by only 37 percent of these women. Decisions about whether the woman should work to earn money are least likely (9 percent) to be made by women alone. Decisions about contraception too are rarely made alone by women; like most other decisions, these decisions are most often made by women jointly with their husband. Among currently married women with at least one child, children-related decisions are also mostly made jointly by women and their husband. Even in decisions about what to do if the child falls ill, mothers alone have the final say in only 21 percent of the cases. Equally notable, however, is the fact that according to women's reports, men rarely have the final say alone about any of these decisions in Cambodia. Husbands alone are most likely to have the final say in decisions about women working (24 percent), followed by decisions about making large household purchases (10 percent). Notably, 8 percent of women say that their husband alone has the final say on decisions about their health care.

Even among women who are not currently married (divorced, separated, widowed, and never married women), only a minority make the different household decisions alone. Among the household decisions, the ones most likely to be made alone by women are decisions about their own health care (42 percent). Even for these decisions, however, 24 percent of women report that someone else alone has the final say. Fewer than one-third of the women have the final say alone in each of the other decisions. The decisions in which women who are not currently married are least likely to have any say are the decisions about large and daily household purchases. This is due, at least in part, to the preponderance in this group of unmarried girls living with their parents. Among women who are not currently married and have at least one living child, the majority (70 to 89 percent) say that they alone make the specified decisions about children.

Table 15.4 Household decisionmaking

Percent distribution of currently married women and of women who are not married by the person who has the final say in specific household decisions, according to type of decision, Cambodia 2000

Household decision	Currently married women						Women who are not married												
	Respond-ent only	Jointly with hus-band only	Jointly with some-one else only	Hus-band only	Some-one else only	No one/NA	Missing	Total	Number	Re-spond-ent only	Jointly with hus-band only	Jointly with some-one else only	Hus-band only	Some-one else only	No one/NA	Missing	Total	Number	
All women																			
Visits to family, friends, or relatives	15.9	77.8	1.3	2.5	1.1	1.1	0.4	100.0	2,245	30.4	0.6	26.5	0.1	25.3	10.3	6.8	100.0	1,497	
Daily household purchases	70.0	23.2	1.3	1.8	3.1	0.3	0.4	100.0	2,245	30.8	0.2	15.4	0.0	40.6	6.3	6.8	100.0	1,497	
Large household purchases	26.6	58.5	1.4	9.7	3.2	0.1	0.5	100.0	2,245	28.5	0.6	21.1	0.2	42.7	0.0	6.8	100.0	1,497	
Whether she should do work to earn money	8.9	62.1	1.3	24.3	2.0	1.1	0.4	100.0	2,245	28.9	0.9	26.0	0.1	31.4	5.8	6.9	100.0	1,497	
Own health care	37.0	52.5	1.2	7.6	1.1	0.2	0.4	100.0	2,245	42.2	0.4	23.5	0.0	23.6	3.3	7.1	100.0	1,497	
Whether to use contraception	15.8	67.2	0.5	1.5	0.1	14.4	0.4	100.0	2,245	24.7	0.8	2.9	0.2	8.8	55.8	6.8	100.0	1,497	
Women with one or more living children																			
Child's schooling	9.6	80.3	1.1	6.0	0.4	2.1	0.4	100.0	2,064	87.2	1.2	4.9	0.3	3.8	0.8	1.9	100.0	323	
What to do if child is sick	21.2	74.5	0.6	2.6	0.5	0.1	0.4	100.0	2,064	88.7	1.2	5.4	0.2	2.6	0.0	1.9	100.0	323	
Have another child	10.3	77.8	0.2	2.3	0.2	8.8	0.4	100.0	2,064	70.1	1.2	0.0	0.0	0.7	26.1	1.9	100.0	323	

NA = Not applicable

Table 15.5 shows that women's participation in household decisions and in decisions related to children (for women who have at least one living child) vary by background characteristics. Note that women are considered as participating in a decision if they alone or jointly with their husband or someone else have the final say in the decision. Overall, among household decisions, women are most likely to participate in decisions about their own health care and least likely to participate in decisions about the use of contraception.¹ Forty-one percent of women participate in all six of these decisions, and 10 percent do not participate in any of the six decisions. Among women who have at least one living child, women's participation in decisions about children is almost universal. If all nine decisions are considered together for these women (the six household decisions and the three decisions about children), 51 percent of women with children participate in all nine decisions, and only 1 percent do not participate in any decision.

Women's participation in each of the six household decisions tends to increase with women's age and is much higher for ever-married women (54 to 56 percent) than for never-married women (8 percent). Participation is also much higher for women with one or more children than for women with no children. Notably, 29 percent of never married women and 24 percent of women with no children do not participate in any of the six decisions. Women living in urban areas are less likely (33 percent) than women living in rural areas (42 percent) to participate in all six decisions. Participation in decisionmaking also varies greatly by region. Half or more of women (50 to 55 percent) participate in all six decisions in Kandal, Kampong Thum, Takaev, Banteay Mean Chey, and Kaoh Kong, whereas only 22 percent of women participate in all six decisions in Svay Rieng. Banteay Mean Chey also has the highest proportion of women who do not participate in any of the six decisions (29 percent). Surprisingly, participation in household decisionmaking declines with education; as expected, however, women who are employed are more likely than women who are not employed to participate in all six decisions. Figure 15.1 shows the distribution of women by the number of household decisions (0-6) that they participate in. One-tenth participate in none of the six decisions, another tenth participate in 1-2 decisions, and about one-seventh participate in 3-4 decisions. The majority, however, participate in all or almost all (5-6) of the decisions.

¹ Thirty-one percent of all women found the question about the decision on contraception to be not relevant to their situation or said that no one makes this decision. These women are assumed to be not participating in the decision on the use of contraception.

Table 15.5. Women's participation in household decisionmaking

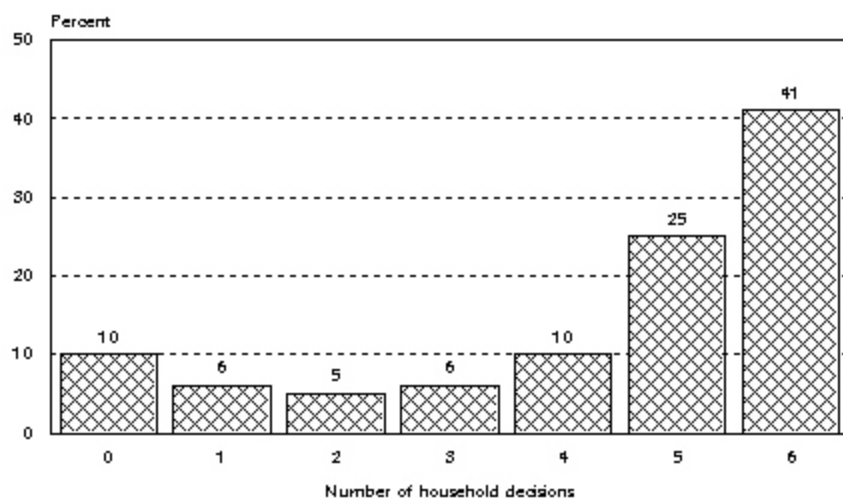
Percentage of women who say that they alone or jointly have the final say in specific decisions, according to background characteristics, Cambodia 2000

Background characteristic	Women with children													
	All women					Women with children								
	Percentage who alone or jointly have final say in decisions about:					Percentage who alone or jointly have final say in decisions about:								
Visits to family, friends, relatives	Making daily purchases	Making large purchases	Whether to earn money	Own health care	Use contraception	All 6 decisions	None of the 6 decisions	Number of women	Child's schooling	What to do if child is sick	Have another child	All 9 decisions	None of the 9 decisions	Number of women with children
Age														
15-19	42.8	28.9	35.4	37.2	53.3	8.8	30.3	841	79.0	92.5	81.3	35.4	3.3	49
20-29	81.1	76.2	70.9	62.6	81.6	38.1	8.4	939	88.6	95.0	89.9	45.6	1.5	591
30-39	95.0	93.3	86.6	77.1	90.2	55.2	1.3	1,126	92.5	96.7	87.5	53.1	0.7	992
40-49	95.9	96.3	90.6	82.2	95.3	56.2	0.7	836	92.8	96.6	81.3	53.0	0.4	755
Marital status														
Never married	46.0	31.6	37.5	43.9	57.0	7.8	28.6	1,123	*	*	*	*	*	1
Married	94.9	94.5	86.6	72.2	90.7	54.8	0.9	2,245	91.0	96.3	88.3	50.2	0.6	2,064
Divorced or separated	93.5	89.2	90.4	90.4	93.0	54.1	4.0	125	91.1	94.1	70.0	54.3	3.2	105
Widowed	92.1	91.4	88.2	92.5	93.7	55.7	3.2	248	94.2	95.9	71.8	55.1	2.0	217
Number of living children														
0	53.2	40.2	44.5	48.8	62.1	13.1	24.2	1,354	NA	NA	NA	NA	NA	0
1-2	93.0	91.3	85.3	71.8	89.8	52.0	1.8	892	90.1	95.2	86.6	47.5	1.3	892
3-4	97.5	96.9	89.5	76.8	91.4	58.9	0.5	784	92.4	96.8	86.0	53.4	0.5	784
5+	95.4	97.6	88.7	77.7	93.7	59.1	0.8	712	91.8	96.7	85.3	52.2	0.8	712
Residence														
Urban	79.9	67.6	63.7	60.1	82.1	33.1	10.2	642	86.8	93.7	79.8	42.0	0.9	368
Rural	80.0	76.8	73.8	66.8	80.6	42.3	9.3	3,099	92.2	96.6	87.1	52.4	0.8	2,019
Region														
Banteay Mean Chey	69.2	68.1	66.0	57.1	69.2	50.9	29.3	174	90.2	92.5	86.5	65.5	5.3	122
Kampong Cham	85.9	84.7	84.9	72.2	76.3	45.0	5.8	489	95.1	97.2	92.7	53.6	0.7	340
Kampong Chhnang	84.8	78.9	70.9	71.6	88.5	45.1	1.1	149	90.4	95.6	89.9	56.0	0.0	90
Kampong Speu	86.1	80.9	74.0	65.0	92.2	40.4	3.9	187	89.0	97.9	89.6	40.5	0.0	134
Kampong Thum	70.2	69.8	70.2	67.1	72.9	51.9	24.0	192	96.4	97.9	95.0	71.9	1.4	118
Kandal	85.3	80.4	82.0	80.8	90.1	55.2	4.3	348	97.0	97.0	95.6	72.0	0.8	226
Kaoh Kong	81.9	81.2	81.6	66.8	92.2	50.0	5.3	39	95.5	96.5	92.4	57.1	0.4	27
Phnom Penh	78.0	61.1	59.3	56.1	85.8	48.7	7.5	374	78.1	94.0	67.8	29.3	0.7	197
Prey Veaeang	72.3	68.8	64.5	61.3	69.4	47.1	16.7	314	99.2	99.2	93.9	64.0	0.8	196
Pousat	73.9	80.4	67.9	59.7	54.0	30.0	8.0	104	89.3	96.2	72.1	33.7	0.6	121
Svay Rieng	63.7	74.2	62.0	36.1	74.4	22.3	21.1	177	86.3	89.4	76.3	24.4	3.7	121
Takaeu	88.2	85.4	79.7	78.0	94.2	51.4	2.7	256	93.0	97.3	92.3	64.7	0.0	166
Bat Dambang/Krong Pailin	94.3	76.0	72.3	69.5	95.7	35.4	2.9	270	86.7	99.3	82.6	43.4	0.0	161
Kampong/Krong Kaeb/														
Krong Preah Sihanouk	75.4	71.8	66.2	66.7	81.4	31.4	11.6	225	93.0	96.1	84.3	42.9	0.0	141
Preah Vihear/Stueng Treang/														
Kracheh	69.8	76.1	66.9	58.0	77.2	30.1	13.2	145	85.5	91.7	75.5	34.8	0.0	93
Mondol Kiri/Rotanak Kiri	87.8	73.4	63.1	53.3	71.0	35.5	6.6	40	62.0	91.3	86.7	35.1	1.4	27
Stem Reab/Otdar Mean Chey	80.0	70.4	75.4	65.3	73.1	32.4	5.1	258	95.5	96.2	75.4	42.9	0.0	156
Education														
No education	83.6	83.1	80.5	69.0	84.5	46.9	6.6	1,035	90.4	96.7	85.2	52.3	0.7	742
Primary	80.4	75.1	71.7	66.3	79.9	40.4	10.0	2,118	92.3	95.9	87.1	50.8	1.0	1,356
Secondary and higher	72.3	61.7	58.5	57.5	77.7	31.0	12.4	588	89.4	95.9	82.7	47.4	1.0	290
Current employment														
Employed for cash	84.0	81.0	78.1	80.5	86.7	47.5	5.9	1,317	91.5	96.3	84.9	57.3	0.7	853
Employed not for cash	79.8	74.1	69.7	63.3	78.3	38.9	11.0	1,460	91.6	96.8	87.0	48.0	1.1	936
Not employed	74.7	69.0	67.3	49.0	76.8	34.2	12.0	964	90.8	95.0	86.0	46.0	0.7	598
Total	80.0	75.2	72.1	65.7	80.9	40.7	9.5	3,741	91.3	96.2	86.0	50.8	0.9	2,387

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

NA = Not applicable

Figure 15.1 Percent Distribution of Women by Number of Household Decisions in Which They Participate



EDSC 2000

15.4 ATTITUDES TOWARD GENDER ROLES

An important aspect of women's status and empowerment is the belief in the ideal of gender equality in roles and rights in society, as well as in the home. The CDHS 2000 explores women's acceptance of unequal gender roles by asking three different sets of questions related to gender roles. The first set seeks to determine women's agreement or disagreement with different statements about gender roles in the household and about education for male and female children. The second set of questions asks women about their attitudes toward wife beating. Attitudes that see the beating of wives by husbands as justified are indicative of women's lower status both absolutely and relative to men. Although such attitudes do not necessarily signify approval of men beating their wives, they do signify women's acceptance of norms that give men the right, in this case, to discipline women with force. The third set of questions explores the issue of sexual rights of wives. Beliefs about whether and when a woman can refuse sex to her husband reflect issues of gender equity with regard to sexual rights and bodily integrity. Besides yielding an important measure of empowerment, the information about women's attitudes toward sexual rights will be useful for improving and monitoring reproductive health programs that depend on women's willingness and ability to control their own sexual lives.

Gender roles in the household

The CDHS 2000 explored women's beliefs about gender-egalitarian roles for husbands and wives in the household by eliciting information on women's agreement or disagreement with the following statements:

- 1) The important decisions in the family should be made by the men of the family.

- 2) If the wife is working outside the home, then the husband should help her with household chores.
- 3) A married woman should not be allowed to work outside the home even if she wants to.
- 4) The wife has a right to express her opinion if she disagrees with what her husband is telling her.
- 5) It is acceptable for a man to have sex outside the marriage.
- 6) A wife should tolerate being beaten by her husband in order to keep the family together.
- 7) It is better to educate a son than a daughter.

Disagreement with statements 1, 3, and 5-7 and agreement with statements 2 and 4 are considered to be the responses most consistent with a greater acceptance of egalitarian gender roles. Table 15.6 shows the percentage of women who gave responses consistent with gender-egalitarian roles by background characteristics. Note that to present the data consistently (i.e., in terms of disagreement only), statements 2 and 4 are listed in the table in terms of their converse.

The percentage of women giving gender-egalitarian responses varies by statement. Forty-one percent of women disagree with the statement that it is better to educate a son than a daughter (statement 7); on the other hand, 89 percent of women disagree with the statement that it is acceptable for a man to have sex outside the marriage (statement 5). Although 81 percent of women agree that a wife has a right to express her opinion even if she disagrees with her husband, only 48 percent disagree with the statement that men should be making the important decisions in the household. Also notable is the fact that the majority of women feel that it is better to educate boys than girls, and about one-third feel that married women should not be allowed to work outside the home. Overall, the mean number of responses consistent with gender-egalitarian roles given by all women is only 4.9 for the 7 statements. With the exception of the variation by region, this mean varies across women with different background characteristics only within a small range, from 4.4 to 5.2 responses. By region, gender-egalitarian attitudes are least prevalent in Mondol Kiri/ Rotanak Kiri (mean 2.7), followed by Banteay Mean Chey (mean 3.6) and most prevalent in Prey Veang and Takaev (mean 5.8-5.9).

In general, disagreement with each of the different statements tends to be much lower for the youngest women (age 15-19) than for older women, especially women age 40-49. In keeping with this, women who are never married and women who have no living children are also less likely to have gender-egalitarian attitudes. There is little urban-rural variation in gender-egalitarian attitudes, but by education, disagreement with five of the seven statements is higher among women with secondary or higher education than women with less or no education. Notably, however, disagreement with the statement that it is better to educate a son than a daughter varies from 36 percent for women with no education to a maximum of only 53 percent for women with secondary or higher education; similarly, disagreement with the statement that important decisions should be made by the men of the family varies from 49 percent for women with no education to only 54 percent for women with secondary or higher education. Disagreement with these statements varies little and inconsistently with women's current employment status.

The variation in disagreement with each statement is greatest by region. For example, only 9 percent of women in Mondol Kiri/Rotanak Kiri and 11 percent in Kaoh Kong disagree with the statement that important decisions should be made by men compared with 67 percent in Takaev and 66 percent each in Kampong Thum and Prey Veang. Only 14 percent of women in Siem Reab/

Table 15.6 Gender-related attitudes

Percentage of women who disagree (reflecting gender-egalitarian ideas) with specific statements about gender-based roles, by background characteristics, Cambodia 2000

Background characteristic	Percentage of women who disagree with the statement:							Number of women	Mean number of statements with which there is disagreement
	Important decisions should be made by men	Husband should not help with household chores ¹	Married women should not be allowed to work	Wife does not have the right to express her opinion ¹	It is acceptable for a man to have extra-marital sex	Wife should tolerate beatings to keep family together	It is better to educate a son than a daughter		
Current age									
15-19	43.1	74.8	57.6	71.1	75.3	76.2	38.4	841	4.4
20-29	48.2	83.9	65.6	81.2	89.5	86.2	43.1	939	5.0
30-39	48.5	87.7	64.4	84.9	94.6	90.2	41.3	1,126	5.1
40-49	52.5	91.5	64.8	85.1	93.6	89.9	40.0	836	5.2
Marital status									
Never married	44.6	75.9	59.2	71.9	75.7	77.6	40.2	1,123	4.4
Married	48.7	88.6	65.0	85.0	95.3	90.0	40.5	2,245	5.1
Divorced or separated	62.7	88.5	66.7	80.1	85.2	87.0	44.4	125	5.1
Widowed	51.5	87.2	63.6	84.8	90.9	87.3	44.9	248	5.1
Number of living children									
0	46.1	78.3	60.7	74.1	78.6	79.5	40.8	1,354	4.6
1-2	53.0	86.7	64.3	84.6	93.9	89.6	42.9	892	5.1
3-4	46.6	88.5	66.4	85.7	95.2	90.0	38.9	784	5.1
5+	47.3	90.2	63.4	83.9	94.6	89.3	40.2	712	5.1
Residence									
Urban	51.4	82.7	68.5	80.1	89.6	89.8	42.3	642	5.0
Rural	47.4	85.1	62.1	81.1	88.6	85.2	40.5	3,099	4.9
Region									
Banteay Mean Chey	54.0	39.0	56.1	41.0	66.1	62.9	38.4	174	3.6
Kampong Cham	47.8	88.3	42.8	86.4	85.2	80.0	31.8	489	4.6
Kampong Chhnang	19.7	95.3	80.5	97.8	96.1	84.8	21.5	149	5.0
Kampong Spueu	14.5	91.7	76.4	90.2	83.2	82.7	25.8	187	4.6
Kampong Thum	66.3	93.7	57.0	71.6	96.4	94.2	30.7	192	5.1
Kandal	58.8	91.9	66.1	94.3	95.7	93.4	54.2	348	5.5
Kaoh Kong	11.3	92.7	59.0	92.0	87.1	90.4	27.2	39	4.6
Phnom Penh	58.2	74.0	79.9	73.4	94.8	95.6	54.5	374	5.3
Prey Veaeang	66.0	91.4	77.5	71.1	98.6	96.6	86.1	314	5.9
Pousat	46.6	96.4	29.8	95.1	92.3	69.9	19.1	104	4.5
Svay Rieng	14.0	83.9	60.1	71.1	74.6	69.1	40.3	177	4.1
Takaev	67.4	91.1	81.7	91.5	90.7	92.0	64.5	256	5.8
Bat Dambang/ Krong Pailin	61.0	77.0	61.6	73.5	83.8	90.6	42.5	270	4.9
Kampot/Krong Kaeb/ Krong Preah Sihanouk	50.4	80.3	63.0	86.5	90.7	78.9	17.9	225	4.7
Preah Vihear/Stueng Traeng/Kracheh	24.3	87.8	77.9	87.1	84.1	83.7	20.9	145	4.7
Mondol Kiri/Rotanak Kiri	9.0	50.6	41.7	36.0	52.3	54.4	30.8	40	2.7
Siem Reab/Otdar Mean Chey	35.4	91.9	41.5	87.8	93.3	91.9	14.4	258	4.6
Education									
No education	48.9	85.1	59.6	79.9	88.7	85.2	35.6	1,035	4.8
Primary	46.0	85.4	61.9	81.7	88.4	85.1	40.1	2,118	4.9
Secondary and higher	54.3	81.4	74.5	79.8	90.1	90.5	52.5	588	5.2
Current employment									
Employed for cash	47.3	83.6	67.1	81.9	91.0	88.3	39.5	1,317	5.0
Employed not for cash	47.3	88.2	60.8	80.3	87.4	83.8	41.0	1,460	4.9
Not employed	50.4	80.7	61.8	80.4	87.9	86.1	42.3	964	4.9
Total	48.1	84.7	63.2	80.9	88.8	86.0	40.8	3,741	4.9

¹ See text for the way these statements were presented to the respondent.

Otdar Mean Chey and 18 to 19 percent of women in Kampot/Krong Kaeb/Krong Preah Sihanouk and Pousat disagree with the statement that it is better to educate a son than a daughter, compared with 65 percent in Takaev and 86 percent in Prey Veang.

Women's agreement with reasons for wife beating

To assess women's degree of acceptance of wife beating, the CDHS 2000 presented the following scenario to all women: "Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations. . . ." The five situations presented to women for their opinion were if food is late or not well-prepared, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sex with him. The first five columns in Table 15.7 show how acceptance of wife beating varies for each reason. The sixth column gives the percentages of women who feel that a husband is justified in beating his wife for at least one of the given reasons. Note that "empowerment" decreases as the value of this indicator increases. That is to say, the more the reasons with which a respondent agrees, the less her level of empowerment according to this indicator.

One out of three women (35 percent) age 15-49 in Cambodia agree with at least one reason to justify a husband beating his wife. Women are least likely to consider that a husband is justified in beating his wife if she refuses to have sexual relations with him or if the food is late or not well prepared. Nonetheless, about one in ten women agree with each of these two reasons. Seventeen percent of women agree that a husband is justified in beating his wife if she argues with him and about one-quarter each agree that he is justified if she goes out without telling him (24 percent) or if she neglects the children (26 percent). Agreement with several of the reasons justifying wife beating tends to increase with age, and agreement with at least one reason ranges from 26 percent for women age 15-19 to 39 percent for women age 30-49. Women who have never been married are least likely to agree with at least one reason justifying wife beating (25 percent), whereas widows are most likely to do so (41 percent). Among currently married women who have been married only once, agreement with at least one reason justifying wife beating increases slightly with duration of marriage, from 36 percent for women who have been married for less than five years to 40 percent for women who have been married for five or more years. In keeping with the increase in agreement with duration of marriage, agreement with wife beating also increases with the number of living children. Women living in urban areas are less likely than women living in rural areas to agree with each of the different reasons to justify wife beating, as are women who have secondary or higher education, compared with women who have less or no education. Contrary to expectations, women who work are almost twice as likely (38 to 41 percent) to agree with at least one reason justifying wife beating than women who are not employed (22 percent). By region, agreement with at least one reason ranges from a low of 1 percent in Bat Dambang/Krong Pailin and 7 percent in Prey Veang to a high of 78 percent in Kampong Spueu and 68 percent in Kampong Chhnang. It is, however, notable that in almost every region and in almost every subgroup of population, women are most likely to agree that a husband is justified in beating his wife if she neglects the children. These results all attest to the pervasiveness of not only the norms that give men the right to discipline women but also gender role norms that define the duties of women and men. Indeed, even among women who have higher education or women who work for cash, a significant proportion justify wife beating.

Table 15.7 Women's agreement with reasons justifying a husband beating his wife

Percentage of women who agree with specific reasons justifying a husband beating his wife, by background characteristics, Cambodia 2000

Background characteristic	Percentage who agree with specific reasons:					Percentage who agree with at least one reason	Number
	Food is late/not well prepared	Argues with him	Goes out without telling him	Neglects the children	Refuses sexual relations		
Age							
15-19	9.2	12.7	17.1	19.3	7.2	25.6	841
20-29	10.6	16.8	22.9	24.8	7.5	34.2	939
30-39	10.6	17.8	27.3	29.6	10.2	39.4	1,126
40-49	12.8	20.0	26.7	27.9	10.1	39.4	836
Marital status							
Never married	8.9	11.6	16.7	17.6	6.8	24.5	1,123
Currently married	11.3	19.2	26.6	29.1	9.4	39.6	2,245
Married only once for:	11.5	19.1	26.5	29.3	9.3	39.6	2,055
<5 years	12.2	17.0	23.9	28.4	8.0	35.5	332
5 or more years	11.4	19.5	27.0	29.5	9.6	40.4	1,723
Married more than once	8.2	20.8	27.3	27.7	10.3	39.5	190
Divorced or separated	17.0	20.5	29.1	23.4	16.1	35.5	125
Widowed	11.6	17.9	27.8	32.6	9.3	41.0	248
Number of living children							
0	9.4	12.7	17.8	19.5	7.1	26.6	1,354
1-2	12.1	18.7	25.7	28.4	10.3	38.4	892
3-4	12.0	19.6	28.6	29.9	9.8	40.6	784
5+	10.3	19.8	27.5	29.6	9.1	40.5	712
Residence							
Urban	7.8	13.1	17.1	16.8	7.5	25.8	642
Rural	11.4	17.7	25.2	27.6	9.1	36.9	3,099
Region							
Banteay Mean Chey	5.3	7.4	8.9	7.3	5.3	13.7	174
Kampong Cham	14.5	22.3	39.2	46.5	9.1	55.8	489
Kampong Chhnang	31.1	34.8	47.9	51.3	16.1	67.7	149
Kampong Spueu	19.3	25.7	67.7	68.3	8.1	78.0	187
Kampong Thum	30.7	42.7	9.3	17.8	42.3	46.7	192
Kandal	5.3	23.8	33.4	30.9	8.1	35.2	348
Kaoh Kong	46.9	41.8	51.7	50.1	33.1	59.8	39
Phnom Penh	5.3	14.6	11.3	13.4	7.3	22.0	374
Prey Veang	1.9	2.9	4.3	4.3	2.9	6.7	314
Pousat	35.4	24.2	34.9	38.9	17.9	64.1	104
Svay Rieng	3.4	28.5	51.4	48.4	5.1	63.7	177
Takaev	3.2	4.1	9.0	7.6	1.3	12.6	256
Bat Dambang/Krong Pailin	0.0	0.4	0.4	0.5	0.0	1.0	270
Kampot/Krong Kaeb/ Krong Preah Sihanouk	4.5	11.5	20.6	23.9	5.9	31.2	225
Preah Vihear/Stueng Traeng/ Kracheh	11.0	15.8	25.4	31.2	3.2	40.7	145
Mondol Kiri/Rotanak Kiri	9.3	4.8	5.9	5.1	3.3	12.2	40
Siem Reab/Otdar Mean Chey	14.9	10.8	14.2	17.4	10.8	30.5	258
Education							
No education	14.2	18.6	25.2	27.9	10.6	37.7	1,035
Primary	10.1	17.2	25.4	27.0	8.8	36.5	2,118
Secondary and higher	7.2	12.7	15.5	17.3	5.7	24.8	588
Current employment							
Employed for cash	9.8	19.6	26.8	28.5	8.8	37.8	1,317
Employed not for cash	14.6	18.6	27.7	31.1	10.5	41.3	1,460
Not employed	6.3	10.7	13.8	13.8	6.2	21.6	964
Total	10.8	16.9	23.8	25.7	8.8	35.0	3,741

Women's agreement with reasons for refusing sexual relations

The extent of control women have over when and with whom they have sex has important implications for demographic and health outcomes. To measure women's agreement with a woman's right to refuse her husband sex, the CDHS 2000 asked respondents whether a wife is justified in refusing to have sex with her husband under four circumstances: she is tired or not in the mood, she has recently given birth, she knows her husband has sex with other women, and she knows her husband has a sexually transmitted infection or AIDS. These four circumstances for which women's opinions are sought were chosen because they are effective in combining women's rights and women's health issues. Table 15.8 shows the percentage of women who say that women are justified in refusing sex to their husband for specific reasons by background characteristics. Note that, unlike in the case of the previous indicator of empowerment, this indicator is positively related to empowerment: the more reasons women agree with, the higher is their "empowerment" in terms of their belief in women's sexual rights.

Although the majority (59 percent) of women age 15-49 in Cambodia agree that women can refuse sex to their husband for all of the four given reasons, a significant minority (31 percent) said that women were not justified in refusing their husband sex for any of the given reasons. In fact, women appear to be fairly polarized on this issue: either agreeing with all the reasons or disagreeing with all of them. Only about one in ten women do not fall into one of these two categories, i.e., they agree with one or more but not all of the reasons. Consequently, there is also little variation in agreement by reason: 63 to 66 percent of women agree with each of the four different reasons. Agreement with each reason tends to increase with age, so that 42 percent of women age 15-19 and 33 percent of women age 20-29 do not agree with any reason to refuse sex to the husband, compared with 25 to 26 percent for women age 30-49. By marital status, agreement with all four reasons is highest among women who are currently married and have been married more than once (71 percent) and lowest among women who were never married (51 percent). Sixty-one percent of women who are currently married and have been married only once agree with all four reasons. Notably, however, agreement with all four reasons increases slightly with duration of marriage from 57 percent for women who have been married for less than five years to 62 percent for women who have been married for five or more years. Consistent with the results by age, agreement also increases with the number of children women have from 53 percent of women with no living children agreeing with all four reasons for refusing sex to 64 percent of women with 5 or more living children agreeing with all four reasons, although agreement varies most between women with no children and women with one or more children.

Women living in urban areas agree more often with each of the four reasons for refusing a husband sex than women living in rural areas, although the differences are not large. Even by educational status, agreement does not vary much, although women who are more educated are consistently more likely to agree with each of the four reasons than women who are less educated. Women who work for cash are more likely to agree with all the reasons for refusing sex to the husband than women who do not work; by contrast, women who work but do not earn cash are less likely than women who do not work to agree with all four reasons for refusing a husband sex. Agreement with the reasons for refusing sex to the husband, however, varies most widely by region. For example, 80 to 88 percent of women agree with all four reasons for refusing sex to the husband in Kampot/Krong Kaeb/Krong Preah Sihanouk, Kampong Chhnang, Kandal, Kaoh Kong, Prey Veaeng, and Siem Reab/Otdar Mean Chey, compared with only 10 percent or less in Mondol Kiri/Rotanak Kiri and Kampong Thum. Notably, the majority of women in Mondol Kiri/Rotanak Kiri, Kampong Thum, Kampong Cham, and Bat Dambang/Krong Pailin do not agree with all of the

Table 15.8 Women's agreement with reasons for refusing to have sexual relations with husband

Percentage of women who agree with specific reasons justifying a wife refusing to have sexual relations with her husband, by background characteristics, Cambodia 2000

Background characteristic	Percentage who agree with specific reasons:					Percentage who agree with some of the reasons	Number
	Tired, not in mood	Gave birth recently	Knows husband has sexual relations with other women	Knows husband has an STI or AIDS	Percentage who agree with all reasons		
Age							
15-19	54.5	56.4	53.5	54.0	50.0	41.6	841
20-29	60.6	63.3	59.9	62.4	54.6	32.5	939
30-39	69.4	71.2	68.5	69.2	63.6	25.3	1,126
40-49	70.3	72.5	68.6	69.4	64.3	25.5	836
Marital status							
Never married	55.3	56.8	53.9	55.6	50.6	40.4	1,123
Currently married	68.1	70.4	67.4	68.4	62.1	26.2	2,245
Married only once for:	67.4	69.5	66.6	67.8	61.3	26.9	2,055
<5 years	63.8	66.8	62.8	64.7	56.5	29.1	332
5 or more years	68.0	70.1	67.3	68.4	62.3	26.5	1,723
Married more than once	76.2	80.3	76.7	74.9	71.0	18.7	190
Divorced or separated	65.5	71.5	64.1	63.5	58.1	26.6	125
Widowed	66.2	66.9	63.6	64.1	60.9	31.0	248
Number of living children							
0	57.5	58.9	56.0	57.5	52.5	38.3	1,354
1-2	67.3	69.9	66.1	66.9	60.3	26.1	892
3-4	66.4	69.0	67.4	67.8	62.1	28.0	784
5+	69.9	72.1	67.6	69.3	63.5	25.7	712
Residence							
Urban	67.5	70.3	67.4	67.2	63.3	28.5	642
Rural	63.3	65.3	62.1	63.5	57.5	31.3	3,099
Region							
Banteay Mean Chey	52.4	56.6	52.5	52.9	48.2	39.8	174
Kampong Cham	36.8	39.8	43.7	40.2	36.3	56.3	489
Kampong Chhnang	92.7	94.5	91.9	91.9	87.8	4.6	149
Kampong Spueu	68.8	70.5	61.8	63.8	58.8	27.6	187
Kampong Thum	36.9	35.6	6.7	6.3	4.9	61.8	192
Kandal	86.2	87.2	87.2	87.6	85.8	12.4	348
Kaoh Kong	85.5	88.6	88.2	89.4	83.4	9.6	39
Phnom Penh	71.6	73.2	72.8	73.3	69.6	25.2	374
Prey Veang	83.7	83.7	84.2	84.2	82.7	15.3	314
Pousat	49.7	53.1	51.2	56.5	41.4	39.6	104
Svay Rieng	65.7	74.7	75.5	77.2	64.0	20.2	177
Takaev	50.6	51.1	38.9	51.1	35.8	40.9	256
Bat Dambang/Krong Pailin	46.5	47.0	37.5	38.4	34.7	52.6	270
Kampot/Krong Kaeb/ Krong Preah Sihanouk	90.0	92.0	94.5	93.5	88.1	4.0	225
Preah Vihear/Stueng Traeng/ Kracheh	51.9	60.5	61.2	60.8	50.3	35.3	145
Mondol Kiri/Rotanak Kiri	9.7	9.7	10.6	12.3	9.7	87.7	40
Siem Reab/Otdar Mean Chey	84.9	86.4	84.8	89.3	80.3	9.2	258
Education							
No education	63.9	66.5	63.8	64.3	58.4	29.8	1,035
Primary	63.3	65.2	61.8	63.0	57.4	32.0	2,118
Secondary and higher	67.0	68.9	65.9	67.7	62.5	28.4	588
Current employment							
Employed for cash	67.2	69.4	67.0	67.4	62.5	28.4	1,317
Employed not for cash	62.9	65.0	59.4	61.0	54.7	32.0	1,460
Not employed	61.6	63.5	63.0	64.3	58.7	32.5	964
Total	64.1	66.2	63.0	64.1	58.5	30.8	3,741

four reasons for refusing a husband sex. These results suggest that even though the majority of women in Cambodia do agree with all four reasons for refusing sex to their husband, a significant proportion do not feel that a wife has the right to unconditionally decide whether and when she wishes to have sex with her husband. About one in three each do not agree that women are justified in refusing sex to their husband if the husband has an STI or AIDS or if he has sex with other women. These findings have implications not only for women’s empowerment but also for those health initiatives whose success rests implicitly on the assumption that women can control sexual encounters or feel justified in doing so.

15.5 SUPPORT FROM BIRTH FAMILY

The knowledge that their birth family is close by and willing to provide support if needed can be an important source of empowerment for women, especially for married women who reside with in-laws. To assess women’s perception of support from their family, The CDHS 2000 asked women whether any members of the birth family were living close by, and whether women had anyone in the family who could a) give them shelter for a few nights if they needed it and b) give them financial support if needed. Table 15.9 shows the percentages of women who have support from their family measured in terms of these three indicators for all women and for currently married, widowed, and separated women by coresidence with in-laws.

More than three-fourths (77 percent) of all women in Cambodia live close to one or more members of their birth family, less than three-fourths (72 percent) have one or more family member who would give them shelter if needed, but only about half (56 percent) have someone who can give them financial support if they needed it. These proportions are all slightly higher for women who are currently married, separated, or widowed and do not differ much by whether these ever-married women are coresident with in-laws. These indicators suggest that although most women in Cambodia do have family that is living close by and could give shelter if needed, a significant proportion—about two out of five—do not have anyone who could help them financially if they were to ever need such help.

Residence and support of birth family	All women	Married, separated, widowed	
		Living with in-laws	Not living with in-laws
Has birth family member living close by	77.0	78.9	77.9
Support from birth family			
Has someone who can give shelter	72.1	79.1	75.4
Has someone who can give financial support	56.3	59.2	59.4
Number	3,741	224	2,291

15.6 FINANCIAL EMPOWERMENT

Direct access to financial resources is likely to be an important cause of and contributor to women's status and empowerment. However, direct access to financial resources can take many different forms, including own earnings, access and use of credit, control over household income, or asset ownership and control. In this section, several different indicators of financial empowerment other than earnings control (which has been discussed earlier), are considered. Specifically, ownership of assets, familiarity with the credit schemes that give loans to women, and control of income for specific types of expenditures are examined.

Table 15.10 shows the proportion of all women who own, alone or jointly with someone else, each of six different types of assets: land; current house or dwelling; some other house, apartment, or dwelling; jewelry or gems; livestock; and car or motorbike. Further, for women who own an asset alone, the table also shows the proportion who can sell the asset without permission from someone else. Although having the right to even co-own valuable assets can be an important indicator of women's status in a given society, for assets to be a source of financial empowerment for women, it is important that women know that they can sell the asset if they ever need to without first having to ask someone else for permission.

Table 15.10 Ownership of assets
Percentage of women who own specific types of assets alone or jointly, and among those who own the asset alone, percentage who can sell the asset without permission, by type of asset, Cambodia 2000

Asset	Percentage of women who own asset:			Number of women	Of those who own asset alone, percentage who can sell without permission	Number of women who own asset alone
	Alone	Jointly	Total			
Land	17.8	46.2	64.1	3,741	73.7	667
Dwelling living in	13.6	54.1	67.7	3,741	83.6	509
Other dwelling	1.0	8.3	9.3	3,741	(85.4)	37
Jewelry or gems	23.7	34.2	57.9	3,741	89.1	888
Livestock	11.9	37.8	49.6	3,741	84.2	444
Car or motorbike	3.1	17.6	20.7	3,741	88.5	116

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

About two-thirds of Cambodian women are owners or co-owners of the dwelling they reside in (68 percent) and a similar proportion own some land (64 percent). In addition, about half are owners or co-owners of livestock, more than half (58 percent) of jewelry or gems, and about one-fifth (21 percent) of a car or motorbike. Few own alternative dwellings, houses, or apartments. Although most women who own an asset are joint owners, it is notable that 24 percent alone own jewelry or gems, 18 percent alone own land, 14 percent alone own the dwelling they are living in, and 12 percent alone own livestock. Further, the majority of woman who own an asset alone can sell the asset without permission. The only asset that women are somewhat less likely to be able to sell without permission, even if they own it alone, is land. Even so, 74 percent of women who own land alone can sell it without permission.

A collection of different summary indicators of women's financial autonomy, including asset ownership, are presented together in Table 15.11. The specific indicators included are the following:

a) Two indicators of asset ownership: the percentage of women who own alone or jointly at least one of the six assets in Table 15.10 and the percentage of women who own alone and can sell at least one of these assets

b) Two indicators of exposure to credit programs: the percentage of women who know of any programs in their area of residence that give loans to women to start or expand a business of their own and the percentage of women who have ever applied for or taken such a loan

c) Two indicators of women's control over income for specific sets of expenditure items: percentage of women who control the money needed to buy one or both of the following household items: perishable foods and staple foods, and the percentage of women who control the money needed to buy one or more of the following personal items for themselves: clothes, any kind of medicinal care, or toiletries such as lipstick and perfume.

Given the relatively high ownership of assets by women shown in Table 15.10, it is not surprising that almost four out of five (78 percent) women in Cambodia own or co-own at least one of the six assets listed earlier. Indeed, among several subgroups of women, notably women age 30-49, women with children, and widowed and currently married women, more than 90 percent own or co-own at least one asset. However, less than one-third (28 percent) of women own at least one asset alone that they can sell without permission. Although ownership of assets increases with age and with number of children, the percentage of women who own an asset alone that they can sell is higher for women age 30-39 (34 percent) than for women in other age groups, especially women age 15-19 (12 percent), and is also higher for women who have one or two children (38 percent) than women with less or more children, especially women with no living children (20 percent). Currently married women are more likely than women in other marital statuses to own an asset but are less likely than other ever-married women to own alone and be able to sell the asset without permission. Only never-married women are less likely than currently married women to own at least one asset alone that they can sell without permission. Rural women are somewhat more likely than urban women to own, alone or jointly, at least one asset, but are equally likely as urban women to own an asset alone and be able to sell it without permission. Although ownership of assets varies substantially by region, the percentage who own an asset alone and can sell it without permission varies even more substantially by region, from 14 to 15 percent in Banteay Mean Chey, Siem Reab/Otdar Mean Chey, and Prey Veang to 70 percent in Kaoh Kong. Ownership of assets declines with education, but the percentage of women who own an asset alone that they can sell without permission is slightly higher for women who have secondary or higher education (32 percent) than women with no education or only primary education (26 to 29 percent). Women who are employed, especially for cash, are more likely to own an asset, as well as own an asset alone that they can sell, than women who are not employed.

Exposure to and use of any credit programs for women is limited. Only 37 percent of women know of any credit programs for women, and only 10 percent have ever taken a loan to start or expand a business. Knowledge of credit programs for women increases with age and is higher among ever-married women than among women who have never been married and among women with children than among women with no living children. Fourteen percent or more of women with three or more children, women age 30-49, and currently married women have ever applied for or taken a loan given to women to start or expand a business. The women least likely to have taken

Table 15.11 Economic autonomy

Percentage of women who own assets, are exposed to modern financial institutions, and have control over income, by background characteristics, Cambodia 2000

Background characteristic	Asset ownership		Exposure to modern financial institutions		Control over income		Number
	Owens at least one asset alone or jointly	Owens at least one asset alone and can sell without permission	Knows about credit programs	Has ever applied for/taken a loan	Controls money for at least one household item ¹	Controls money for at least one personal item ²	
Age							
15-19	42.0	12.4	24.2	2.9	19.8	45.9	841
20-29	76.8	29.1	38.7	8.7	68.9	81.4	939
30-39	93.2	33.8	40.9	14.7	88.9	93.6	1,126
40-49	96.3	32.9	44.3	14.2	91.1	95.1	836
Marital status							
Never married	44.6	17.2	27.7	3.7	22.6	48.5	1,123
Currently married	93.8	26.2	41.4	13.7	89.7	94.5	2,245
Divorced or separated	77.7	61.2	42.1	9.6	78.9	88.1	125
Widowed	90.2	71.0	41.9	11.5	84.4	89.6	248
Number of living children							
0	50.1	19.9	29.3	4.2	31.0	55.2	1,354
1-2	91.0	37.9	41.4	11.6	85.6	92.0	892
3-4	94.5	31.7	43.4	14.9	92.4	95.3	784
5+	98.1	24.9	41.0	15.8	94.1	96.2	712
Residence							
Urban	74.0	29.0	45.3	10.0	63.0	78.9	642
Rural	79.1	27.3	35.7	10.5	70.1	80.4	3,099
Region							
Banteay Mean Chey	69.2	14.6	22.7	7.4	61.9	58.2	174
Kampong Cham	83.4	41.2	31.8	5.0	74.3	82.8	489
Kampong Chhnang	85.7	21.9	39.2	11.7	64.2	83.2	149
Kampong Spueu	87.3	37.3	35.6	12.3	78.0	82.8	187
Kampong Thum	72.9	40.9	40.5	8.4	71.1	72.4	192
Kandal	80.4	18.6	40.5	13.7	77.6	85.3	348
Kaoh Kong	84.8	69.6	6.7	0.0	80.3	84.9	39
Phnom Penh	68.2	32.7	21.7	5.5	56.1	76.7	374
Prey Veang	94.3	14.4	28.9	15.3	66.9	67.3	314
Pousat	80.4	29.9	53.0	18.9	81.2	91.7	104
Svay Rieng	81.6	22.2	47.8	12.3	53.6	70.8	177
Takaev	89.5	37.3	59.3	15.3	81.7	90.3	256
Bat Dambang/Krong Pailin	63.2	16.2	50.9	6.0	65.5	80.3	270
Kampot/Krong Kaeb/ Krong Preah Sihanouk	73.0	18.6	54.4	18.1	63.7	91.7	225
Preah Vihear/Stueng Traeng/ Kracheh	74.0	34.8	16.6	4.7	65.1	83.4	145
Mondol Kiri/Rotanak Kiri	88.6	61.6	7.1	1.5	58.4	76.3	40
Siem Reab/Otdar Mean Chey	65.6	15.1	41.1	13.2	69.4	85.2	258
Education							
No education	83.3	29.3	32.9	11.8	76.4	83.1	1,035
Primary	78.1	25.6	38.5	10.3	68.7	80.4	2,118
Secondary and higher	70.1	31.7	41.1	8.4	56.0	74.3	588
Current employment							
Employed for cash	81.6	32.5	38.3	11.3	74.1	85.6	1,317
Employed not for cash	78.1	26.2	38.2	11.2	68.2	78.6	1,460
Not employed	74.0	23.1	34.7	8.0	62.7	75.2	964
Total	78.3	27.6	37.4	10.4	68.9	80.2	3,741

¹ Includes perishable food items and staple foods

² Includes clothes, any kind of medical care, and toiletries for the woman herself

or applied for a loan are the youngest women (age 15-19), never-married women, and women with no children. Knowledge of credit programs for women is more common in urban areas than rural areas; however, urban and rural women are about equally likely to have applied for or taken a loan. Knowledge and use of any credit program for women is lowest in Kaoh Kong and Mondol Kiri/Rotanak Kiri, where only 7 percent of women know about any credit programs for women and 2 percent or less have ever applied for or taken a loan. By contrast, in Takaev, Kampot/Krong Kaeb/Krong Preah Sihanouk, and Pousat, 53 to 59 percent know of a loan program for women to start or expand a business, and 15 to 19 percent have ever applied for or taken such a loan. Knowledge of such programs increases with education, but the use of such programs declines with education from 12 percent for women with no education to 8 percent for women who have secondary or higher education. Both knowledge and use is higher among employed women, compared with women who are not employed.

An examination of women's control over household expenditure reveals that 69 percent of women control the money required for household items, namely, perishable or staple food items, and 80 percent control money for one or more personal items. However, such control does vary by age and number of children. By age, for example, the likelihood of control increases sharply between women age 15-19 and women age 20-29 and then more gradually among older women. By marital status, currently married women are most likely to have control over income for both types of expenditures, and never-married women are least likely to do so. Rural women are more likely than urban women to control income for household expenses; however, rural and urban women are about equally likely to control income for one or more personal expenses. The pattern and extent of control over income for household and personal expenditures varies greatly across regions. For example, in Banteay Mean Chey, Kampong Thum, and Prey Veang, women are about equally likely to have control over income for household or personal items, but in all other regions, women are far more likely to have control over income for one or more personal items than for one or both household items. In addition, the percentage of women who control income for one or both household expenditures is lowest (54 percent) in Svay Rieng and highest (80 to 82 percent) in Pousat, Kaoh Kong, and Takaev. The percentage who control income for one or more personal items is lowest (58 percent) in Banteay Mean Chey and highest (90-92 percent) in Kampot/Krong Kaeb/Krong Preah Sihanouk, Pousat, and Takaev. Control over income for both types of expenditures declines consistently with education. Women who are employed for cash, followed by women who are employed without earning cash, are more likely than women who are not employed at all to control income for both types of expenditures.

15.7 INVOLVEMENT WITH CIVIL SOCIETY

Involvement in civil society is not only a source of empowerment for women, but it is also a desired outcome of the empowerment of women. To be fully empowered, women must participate as equal partners in the development and conduct of their societies. The CDHS 2000 explored women's involvement in civil society in Cambodia by asking women whether they were members of any kind of association, group, or club that holds regular meetings; whether they vote always, sometimes, or never in local or national elections; and about their knowledge of laws in Cambodia protecting women's rights and about the problem of trafficking in women. Table 15.12 shows the data on women's organization membership and voting behavior by background characteristics. Women's knowledge about laws protecting women's rights and about trafficking in women is shown by background characteristics in Table 15.13.

Few women (3 percent) in Cambodia are members of any association, club, or organization. The types of organizations and groups that women mention being members of include development

Table 15.12 Involvement in civil society

Percentage of women who are members of some organization, and percent distribution of women by voting status in national or local elections, according to background characteristics, Cambodia 2000

Background characteristic	Member of some organization	Voting status			Total	Number
		Votes always/sometimes	Never votes/too young to vote	Missing		
Age						
15-19	0.9	27.7	63.4	8.9	100.0	841
20-29	2.4	92.3	4.7	3.1	100.0	939
30-39	3.9	98.1	1.4	0.5	100.0	1,126
40-49	4.9	98.4	1.3	0.3	100.0	836
Residence						
Urban	1.8	75.8	21.1	3.1	100.0	642
Rural	3.4	81.9	15.1	3.0	100.0	3,099
Education						
No education	3.5	89.2	9.1	1.6	100.0	1,035
Primary	3.0	79.4	17.0	3.6	100.0	2,118
Secondary and higher	2.5	71.5	25.0	3.4	100.0	588
Total	3.1	80.9	16.1	3.0	100.0	3,741

committees, religious groups, and social groups (data not shown). Although the proportion who are members of associations increases with age, is higher in rural than in urban areas, and falls with education, it is never higher than 5 percent for any subgroup of the population. Women's participation in civil society by exercising their vote is, by contrast, almost universal. Overall, 81 percent of women always or sometimes vote, and among women age 20 and above, over 90 percent do so. The percentage of women who do not vote is highest among the youngest women largely because some of them are not old enough to vote or to have voted in the last election. The likelihood that women vote also declines with education, in part perhaps because women with no education tend to be the older women who are also more likely to be eligible to vote.

Only about half (52 percent) of the women in Cambodia have heard of any laws that protect women's rights, and only 55 percent have heard of trafficking in women (Table 15.13). Regarding knowledge of specific laws protecting the rights of women, women most often mentioned the equal rights law (44 percent) followed by the laws against trafficking in women (27 percent) and laws on marriage and divorce (23 percent). Only 16 percent mentioned knowing about labor laws, and 5 percent mentioned knowing about laws on abortion. Knowledge of any law protecting women increases from 46 percent for women age 15-19 to 51 percent for women age 20-29 and 56 percent for women age 30-49. The variation in the percentage of women knowing about any laws is even lower by women's marital status, but is much higher among women living in urban areas (68 percent) than women living in rural areas (49 percent). Knowledge of one or more laws increases sharply with education from only 38 percent of women with no education knowing any law to 71 percent for women with secondary or higher education. Knowledge also varies greatly by region. Only 12 percent of women in Banteay Mean Chey know of any law protecting the rights of women, compared with 74 to 77 percent of women in Takaev, Prey Veang, and Phnom Penh. By employment status, women employed for cash are most likely to know of one or more laws but women who are employed but do not earn cash are least likely to know any laws. The pattern of variation by women's background characteristics in knowledge about the problem of trafficking in women is similar to the pattern of variation in knowledge about any law protecting women's rights, with the largest variation being by education and region.

Table 15.13 Knowledge of issues and laws concerning women's rights

Percentage of women who are aware of trafficking of women, and percentage who have heard of specific laws concerning women's rights, Cambodia 2000

Background characteristic	Percentage who are aware of trafficking of women	Percentage who have knowledge of specific laws:						Any laws to protect women's rights	Number of women
		Equal rights	Marriage/divorce	Labor	Abortion	Trafficking	Other		
Current age									
15-19	49.3	39.3	19.2	14.4	3.2	25.0	1.7	46.0	841
20-29	54.4	43.3	21.4	15.7	4.3	26.2	1.8	51.1	939
30-39	58.1	46.0	25.9	17.4	6.6	30.6	2.1	55.9	1,126
40-49	58.2	46.8	25.9	13.9	6.2	26.1	1.0	55.7	836
Marital status									
Never married	52.0	42.2	18.9	15.7	3.9	27.6	1.6	49.1	1,123
Married	56.9	44.3	25.0	15.4	5.9	27.2	1.6	53.5	2,245
Divorced or separated	56.9	46.6	31.4	16.1	2.5	28.0	5.8	56.2	125
Widowed	54.1	48.3	22.9	15.8	5.5	24.9	1.1	55.8	248
Residence									
Urban	64.9	59.5	30.4	21.4	6.0	35.5	1.0	67.7	642
Rural	53.2	40.8	21.8	14.3	5.0	25.5	1.8	49.3	3,099
Region									
Banteay Mean Chey	12.0	10.3	10.9	5.7	2.6	2.6	0.0	11.9	174
Kampong Cham	26.2	27.8	28.6	15.0	0.5	7.1	3.9	36.2	489
Kampong Chhnang	73.0	42.0	17.3	9.8	0.8	16.5	2.8	58.2	149
Kampong Spueu	40.5	36.7	13.0	6.0	1.5	9.9	0.5	38.7	187
Kampong Thum	56.8	52.4	31.1	16.5	16.9	30.7	0.0	55.5	192
Kandal	83.1	57.1	37.8	24.2	19.5	49.0	1.4	66.1	348
Kaoh Kong	22.7	16.1	12.5	1.5	2.3	9.5	0.4	22.9	39
Phnom Penh	60.3	66.3	29.6	34.7	6.5	35.9	0.8	74.3	374
Prey Veaeng	75.9	65.4	22.5	17.8	3.3	39.8	0.0	76.4	314
Pousat	59.8	18.5	6.0	0.8	0.0	12.6	11.0	40.7	104
Svay Rieng	32.6	19.0	8.4	2.1	0.4	16.1	0.0	23.9	177
Takaev	87.9	62.7	23.9	22.1	4.4	54.1	4.0	77.1	256
Bat Dambang/Krong Pailin	63.3	46.2	39.9	19.9	8.7	42.0	0.0	51.6	270
Kampot/Krong Kaeb/ Krong Preah Sihanouk Preah Vihear/	71.4	59.3	18.7	14.3	1.4	24.4	4.1	68.2	225
Stueng Traeng/Kracheh	22.7	18.0	8.7	7.3	0.8	11.7	0.0	24.0	145
Mondol Kiri/Rotanak Kiri	19.6	10.5	9.6	4.1	1.9	11.8	0.0	18.2	40
Siem Reab/Otdar Mean Chey	56.2	39.0	13.9	4.0	2.4	28.5	0.0	48.4	258
Education									
No education	42.0	32.3	17.8	9.0	3.8	18.3	0.4	38.1	1,035
Primary	57.6	44.8	23.1	15.6	5.1	27.7	2.2	54.2	2,118
Secondary and higher	69.9	61.6	33.3	26.7	8.0	41.2	2.0	71.3	588
Current employment									
Employed for cash	58.9	51.6	29.9	22.0	9.1	32.1	1.7	60.1	1,317
Employed not for cash	49.8	36.7	18.6	8.4	2.7	20.3	1.5	45.6	1,460
Not employed	58.5	44.7	21.2	17.5	3.7	31.0	2.0	52.4	964
Total	55.2	44.0	23.3	15.5	5.2	27.2	1.7	52.4	3,741

In recent years, there has been increasing concern about violence against women in general, and domestic violence in particular, in both developed and developing countries (United Nations General Assembly, 1991). Not only has domestic violence against women been acknowledged worldwide as a violation of the basic human rights of women, but an increasing amount of research highlights the health burdens, intergenerational effects, and demographic consequences of such violence (Heise et al., 1998; Heise et al., 1994; Jejeebhoy, 1998). In many societies, including Cambodia, women are socialized to accept, tolerate, and even rationalize domestic violence and to remain silent about such experiences (Zimmerman, 1994). Tolerance and experience of domestic violence are significant barriers to the empowerment of women, with consequences for women's health, their health-seeking behavior, their adoption of a small family norm, and the health of their children. The CDHS 2000 included a module of questions that provides extensive information on the experience of domestic violence by women in Cambodia at the hands of husbands and others. Specifically, the module provides information on the prevalence of any violence against ever-married women by husbands or other persons (since age 15). For violence by the current or last husband (for women not currently in union), information is sought on the type of violence (emotional, physical, or sexual) and the timing of the initiation of the violence. In addition, the degree of marital control exercised by the husband, violence during pregnancy, and violence by women against their husband are also measured. For women who have experienced any physical or sexual violence, information is collected on whether and from whom help was sought.

As mentioned earlier, there is a culture of silence around the topic of domestic violence that makes the collection of data on this sensitive topic particularly challenging. Even women who want to speak about their experience with domestic violence may find it difficult because of feelings of shame or fear. The need for establishing a rapport with the respondent, ensuring confidentiality, and ensuring privacy during the interview are all important for the entire survey but are critical in ensuring the validity of the data on domestic violence. Complete privacy is also essential for ensuring the security of the respondent and the interviewer. Asking about or reporting violence, especially in households where the perpetrator may be present at the time of interview, carries the risk of further violence. Given all of these concerns related to the collection of data on violence, the CDHS 2000 took the following steps to ensure the validity of the data and the security of respondents and interviewers:

- Special training was provided to interviewers to sensitize them to the problem of domestic violence in Cambodia and to the specific challenges involved in collecting data on violence. The need to form a rapport with the respondent and ensure privacy was emphasized both in teaching and practice.
- The module was specially designed to allow the interviewer to continue the interview only if privacy was ensured. If privacy could not be obtained, the interviewer was instructed to skip the module, enter an explanation of what happened, thank the respondent, and end the interview. Notably, in Cambodia, only 34 eligible women selected for interview with the module could not be interviewed due to security considerations.

- Only one eligible woman in each selected household was administered the module questions. In households with more than one eligible woman, the woman administered the module was randomly selected using a specially designed simple selection procedure. By interviewing only one woman in each household with the module any security breach due to other persons in the household knowing that information on domestic violence was given was minimized.
- Informed consent of the respondent was obtained for the survey at the start of the CDHS 2000 interview. In addition, at the start of the module, each respondent was read a statement informing her that she was now going to be asked questions that could be personal in nature because they explored different aspects of the relationship between couples. The statement assured her that her answers were completely confidential and would not be told to anyone else and that no one else in the household would be asked these questions.
- Interviewers were provided with a list of organizations that provide services or referrals to victims of domestic violence and were instructed to give a copy of the list to abused women who appealed to them for help.

The domestic violence module was implemented in the same subsample of households as the women’s status module, which consisted of one-fourth of the households selected for the CDHS 2000. However, unlike the women’s status module, this module was administered to only one randomly selected ever-married woman in each selected household (for security reasons, as mentioned above). If there was only one eligible woman in a household that woman was administered the module. In households with more than one eligible woman, the procedure used to select only one woman from the eligible women was as follows: All households selected for the module were randomly assigned the number 1 or 2, which was written on the questionnaire. In households assigned the number 1, the oldest eligible woman was selected, and in households assigned the number 2, the youngest eligible woman was selected. This procedure has the multiple virtues of simplicity, ease of use, and speed even in the most complicated of field situations. A more complicated procedure would have run the risk of introducing errors due to selection mistakes that are less predictable and go largely undocumented. Importantly, this procedure does not adversely affect the representativeness of the violence data for Cambodia, even though it leaves out women who are not the youngest or the oldest. This is because in Cambodia there is, on average, less than one ever-married woman per household. In fact, only 6 percent of selected households in Cambodia had even two women, and only 0.5 percent had three or more. Overall, a total of 2,403 interviews were completed using the domestic violence module.

16.1 APPROACH TO VIOLENCE MEASUREMENT

Research on violence suggests that the most common form of domestic violence for adults is spousal violence. Thus, spousal violence was measured using a modified and greatly shortened conflict tactics scale (CTS) used by Strauss (1990). This scale has been found to be effective in measuring domestic violence and can be easily adapted for use in different cultural situations. In the CDHS 2000, spousal violence was measured using the following set of questions:

Does/Did your (last) husband ever—

- a) Push you, shake you, or throw something at you?
- b) Slap you or twist your arm?
- c) Punch you with his fist or with something that could hurt you?

- d) Kick you or drag you?
- e) Try to strangle you or burn you?
- f) Threaten you with a knife, gun, or other type of weapon?
- g) Attack you with a knife, gun, or other type of weapon?
- h) Physically force you to have sexual intercourse even when you did not want to?
- i) Force you to perform types of other sexual acts you did not want to?

The questions were asked with reference to the current husband for women currently married and the last husband for women not currently married. Women could answer with a “yes” or a “no” to each item, and in cases when the answer was a “yes,” women were asked about the frequency of the act in the 12 months preceding the survey. A “yes” to one or more of items (a) to (d) constitutes evidence of less severe physical violence, a “yes” to one or more of items (e) to (g) constitutes evidence of severe physical violence, and a “yes” to items (h) or (i) or both constitutes evidence of sexual violence.

A similar approach was used to measure the prevalence of emotional violence. Respondents were asked the question:

Does/Did your last husband ever—

- a) Say or do something to humiliate you in front of others?
- b) Threaten you or someone close to you with harm?
- c) Swear at you?

Women could answer “yes” or “no” to each item, and for items they answered yes to, they were asked about frequency of occurrence in the 12 months preceding the survey.

This approach of asking separately about specific acts has the advantage of not being affected by different understandings of what constitutes violence. A woman has to say whether she has, for example, ever been “slapped,” not whether she has ever experienced any “violence.” All women would probably agree on what constitutes a slap, but what constitutes a violent act or is understood as violence may vary across women as it does across cultures. In fact, summary terms such as “abuse” or “violence” were avoided in training and not used at all anywhere in the title, design, or implementation of the module. The modified CTS approach also has the advantage of giving the respondent multiple opportunities to disclose any experience of violence, and, if the different violent acts included in the list are chosen carefully, also allows the assessment of the severity of violence.

This modified CTS approach to measuring violence is not new to Cambodia. The 1996 Household Survey of Domestic Violence (HSDV) also used this approach to successfully study domestic violence in Cambodia (Ministry of Women’s Affairs and Project Against Violence, 1996). This survey, which provides extensive information on spousal violence, was based on a representative sample of 1,374 women and 1,286 men in 6 provinces and Phnom Penh. According to the survey, one in every six (16 percent) women in Cambodia was physically abused by her husband and more than one in ten men reported abusing their wife. About half of the women reporting violence also reported injuries.

In addition to spousal violence, the CDHS 2000 asked women whether they had experienced violence at the hands of anyone other than their current or last husband using the question: “From the time you were 15 years old has anyone other than your (current/last) husband hit, slapped,

kicked, or done anything else to hurt you physically?” Women who responded yes to this question were asked about the person(s) who had done this and the frequency of such violence during the 12 months preceding the survey. Similar questions were used to measure violence during pregnancy and violence by women against their husband.

This review of questions shows that the CDHS 2000 uses a mix of approaches to measure domestic violence. More detail is available for spousal violence than for violence by other persons. The predominance of spousal violence in domestic violence justifies this emphasis on spousal violence, especially in light of the fact that only ever-married women were asked about their experiences of violence.

The use of a mix of measurement approaches, multiple opportunities for disclosure, and the precautions followed to ensure confidentiality and security outlined in section 16.1 are all likely to have helped minimize the underreporting of violence. In fact, as will be shown below, the CDHS 2000 estimate of the prevalence of marital violence is almost identical to the corresponding estimate from the Household Survey of Domestic Violence in Cambodia (Ministry of Women’s Affairs and Project Against Violence, 1996). Nonetheless, the possibility of some underreporting of violence cannot be entirely ruled out in any survey. This suggests that caution should always be exercised in interpreting not only the overall prevalence of violence data but also the differentials in prevalence between subgroups of the population. Although a large part of any substantial difference in prevalence of violence between subgroups undoubtedly reflects actual differences in prevalence, differential underreporting by women in the different subgroups can also contribute to exaggerating or narrowing differences in prevalence to an unknown extent.

Table 16.1 Experience of beatings or physical mistreatment

Percentage of ever-married women who have experienced violence since age 15 and percentage who have experienced violence during the 12 months prior to the survey, by background characteristics, Cambodia 2000

Background characteristic	Percentage who have experienced violence:		Number
	Since age 15	In last 12 months ¹	
Age			
15-19	16.3	4.5	100
20-29	24.7	16.2	612
30-39	24.7	16.6	952
40-49	21.1	14.0	739
Marital status			
Married	22.0	14.7	2,078
Divorced/separated	50.1	27.6	107
Widowed	21.7	13.6	218
Residence			
Urban	22.3	13.9	388
Rural	23.4	15.4	2,015
Region			
Banteay Mean Chey	16.2	12.3	111
Kampong Cham	21.8	16.8	357
Kampong Chhnang	27.7	19.8	91
Kampong Spueu	10.5	2.7	135
Kampong Thum	14.7	13.4	118
Kandal	27.3	17.9	216
Kaoh Kong	26.1	20.0	28
Phnom Penh	30.6	17.2	200
Prey Veaeng	11.7	7.6	206
Pousat	47.2	38.9	75
Svay Rieng	30.5	16.0	120
Takaev	23.4	13.2	158
Bat Dambang/Krong Pailin	18.6	8.9	158
Kampot/Krong Kaeb/ Krong Preah Sihanouk	20.5	11.1	149
Preah Vihear/Stueng Traeng/ Kracheh	20.8	13.9	94
Mondol Kiri/Rotanak Kiri	12.4	9.5	28
Siem Reab/Otdar Mean Chey	39.1	27.8	159
Education			
No education	27.0	17.9	746
Primary	22.5	14.8	1,352
Secondary and higher	17.5	10.5	306
Employment status			
Employed for cash	25.8	15.0	866
Employed not for cash	21.1	14.1	958
Not employed	22.9	17.3	579
Total	23.2	15.2	2,403

¹ Excludes women who have been beaten only during pregnancy

Table 16.2 Perpetrators of violence

Percent distribution of ever-married women reporting any physical violence by perpetrator of the violence, according to current marital status, Cambodia 2000

Current marital status	Perpetrator				Total	Number
	Husband only	Previous husband only	Husband and others	Person other than husband		
In union	57.8	1.3	15.3	25.6	100.0	458
Divorced/separated	(0.0)	(58.8)	(15.9)	(25.3)	100.0	54
Widowed	(0.0)	(60.7)	(16.0)	(23.3)	100.0	47
Total	47.4	11.8	15.4	25.4	100.0	559

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

16.2 WOMEN’S EXPERIENCE OF VIOLENCE SINCE AGE 15 AND RECENT VIOLENCE IN THE 12 MONTHS PRECEDING THE SURVEY

Table 16.1 shows the percentage of ever-married women who have experienced violence since age 15 and in the 12 months preceding the survey by background characteristics. A woman is said to have experienced any violence if she reported violence by a current or previous husband at any time or violence by anyone else since she was age 15. Similarly, recent violence, violence in the 12 months preceding the survey includes violence by husbands or anyone else.

Table 16.1 shows that one out of four (23 percent) ever-married women in Cambodia age 15-49 has experienced physical violence since age 15 and one out of seven (15 percent) has experienced violence in the 12 months preceding the survey. This implies that among women who have ever experienced violence, two-thirds (66 percent) have experienced violence in the recent past. Table 16.2 shows that the most common form of violence is violence by current or previous husbands. Seventy-five percent of women reported violence by a husband (alone or with others), and this proportion does not vary by current marital status.

There is some variation in the reported prevalence of violence by background characteristics (Table 16.1). Prevalence is higher among women age 20-39 than among younger women and older women. The lower prevalence of violence ever and in the 12 months preceding the survey among ever-married women age 15-19 may be due in part to their shorter duration of exposure to spousal violence, the most common form of violence. One out of every two women currently divorced or separated reported experiencing violence since age 15, and are also much more likely than others to report violence in the recent past. The prevalence of violence is similar in urban and rural areas but varies by region. Prevalence is highest in Pousat where 47 percent of ever-married women reported having experienced violence and 39 percent reported violence in the 12 months preceding the survey. The prevalence of both any violence and recent violence is also relatively high in Siem Reab/Otdar Mean Chey (39 percent and 28 percent, respectively). In Phnom Penh and Svay Reang, the percentage of women who reported ever having been beaten is much higher than average (both 31 percent), but the percentage reporting violence in the recent past is about the same as the national average (16 to 17 percent). Prevalence of any violence and violence in the 12 months preceding the survey are both lowest in Kampong Spueu (11 percent and 3 percent, respectively), followed by Prey Veang (12 percent and 8 percent, respectively). The prevalence of violence falls

with level of education. However, even among the most educated women, 18 percent reported having experienced violence, and 11 percent reported experiencing violence in the 12 months preceding the survey. There is little variation in the prevalence of violence by employment status; nonetheless, it is notable that women who are employed for cash are more likely to report having experienced violence (26 percent) than other women but are less likely to report recent violence.

16.3 VIOLENCE DURING PREGNANCY

Although the experience of violence at any time is likely to have adverse consequences for women's mental and physical health, violence during pregnancy carries additional risks to women's health and survival (due to the added vulnerability from being pregnant) and to the health and survival of the unborn child. To measure violence during pregnancy, women who had ever been pregnant were asked, "Has anyone ever hit, slapped, kicked, or done something else to hurt you physically during (any/this or any other) pregnancy?" Table 16.3 shows the percentage of women who have experienced physical violence during pregnancy among ever-married women who have ever been pregnant by background characteristics.

Overall, 3 percent of women reported having experienced violence during pregnancy. This proportion is slightly lower among women age 15-29 than among women age 30-49. Ten percent of divorced and separated women reported violence during pregnancy, compared with 2 percent of currently married or widowed women. There is little variation by the remaining background characteristics, except by region of residence. By region, the prevalence of violence during pregnancy varies from 0 percent in Kampong Thum to 5 percent in Siem Reab/Otdar Mean Chey and Kampong Chhnang, 6 percent in Bat Dambang/Krong Pailin, and 7 percent in Pousat.

Table 16.3 Violence during pregnancy

Percentage of women who have experienced physical violence during pregnancy among ever-married women who have ever been pregnant, according to background characteristics, Cambodia 2000

Background characteristic	Percentage experiencing violence during pregnancy	Number of women ever pregnant
Age		
15-19	1.9	61
20-29	1.8	578
30-39	2.8	927
40-49	2.9	722
Marital status		
Married	2.3	1,983
Divorced/separated	9.9	98
Widowed	1.7	207
Residence		
Urban	2.9	366
Rural	2.5	1,922
Region		
Banteay Mean Chey	3.1	110
Kampong Cham	1.3	341
Kampong Chhnang	4.7	87
Kampong Spueu	1.4	125
Kampong Thum	0.0	114
Kandal	2.1	210
Kaoh Kong	2.9	26
Phnom Penh	3.6	190
Prey Veang	1.4	193
Pousat	6.8	73
Svay Rieng	1.2	114
Takaev	1.4	148
Bat Dambang/Krong Pailin	5.9	153
Kampot/Krong Kaeb/ Krong Preah Sihanouk	1.6	136
Preah Vihear/Stueng Traeng/ Kracheh	2.2	90
Mondol Kiri/Rotanak Kiri	1.9	26
Siem Reab/Otdar Mean Chey	4.8	152
Education		
No education	3.0	709
Primary	2.2	1,298
Secondary and higher	2.8	281
Employment status		
Employed for cash	2.3	823
Employed not for cash	2.7	905
Not employed	2.7	559
Total	2.5	2,288

16.4 MARITAL CONTROL

Spousal violence rarely occurs in isolation from other controlling behaviors. In fact, attempts by husbands to control the different aspects of the lives of their wives can be precursors to violent behaviors. To measure the degree of marital control exercised by husbands, the CDHS 2000 asked ever-married women whether their husband displayed any of the following behaviors: the husband was jealous or angry if she talked to other men, frequently accused her of being unfaithful, did not permit her to meet with her girlfriends, tried to limit her contact with her family, insisted on knowing where she was at all times, and did not trust her with any money. Table 16.4 shows the percentage of women who said yes to each of the different behaviors and the percentage of women whose husband displayed none of these behaviors. In the study of behaviors that may be related to violence, however, the display of any single behavior is unlikely to be very relevant; what is more consequential is the display of a complex of related behaviors. Thus, the table also shows the percentage of women who said that their husband displayed three or more of the listed behaviors.

The behavior women reported most often was that their husband was jealous if they talked to other men: this behavior was reported by about one in five women (18 percent). Twelve percent each reported that their husband accused them of being unfaithful, insisted on knowing where they were at all times, and didn't trust them with money; 6 percent reported that their husband did not allow them to meet with their girlfriends; and 5 percent said that their husband tried to limit their contact with their family. In the case of 11 percent of women, their husband displayed at least three or more of these behaviors, while 71 percent of women said that their husband did not display any of these behaviors. These results suggest that although the majority of women have marriages in which the husband imposes a minimal amount of control, about one in ten women are (or were) in marriages in which a substantial degree of marital control is (was) displayed by the husband.

A high level of marital control (husband displays at least three of the controlling behaviors) is more common in the marriages of women age 15-19 (18 percent) than in the marriages of older women, especially women age 20-29 (7 percent). Among currently married women, husbands are twice as likely to display a high level of control if the woman has been married more than once (18 percent) than if the woman has been married only once (9 percent). However, it is women who are currently divorced or separated that are most likely to report a high level of marital control in their last marriage: 47 percent of these women said that their last husband displayed at least three of the controlling behaviors. There was little variation in the percentage of women whose husband displayed a high level of marital control by number of living children. Similarly, there was little variation by women's education; but the percentage of women whose husband displayed at least three of the controlling behaviors declined from 13 percent if the husband was not educated to 8 percent if the husband had secondary or higher education. Thirteen percent of women who were employed for cash had a husband who displayed at least three of the behaviors, compared with 11 percent of unemployed women and 9 percent of women who were employed but did not earn cash. The likelihood that a husband will display at least three controlling behaviors varies little with interspousal age difference.

Table 16.4 Marital control exercised by husband

Percentage of ever-married women whose husband displays various controlling behaviors, by background characteristics, Cambodia 2000

Background characteristic	Percentage of women whose husband:								Number
	Is jealous if she talks to other men	Accuses her of being unfaithful	Does not permit meetings with girlfriends	Tries to limit contact with family	Insists on knowing where she is at all times	Doesn't trust her with money	Displays at least 3 of these behaviors	Displays none of these behaviors	
Age									
15-19	21.9	16.2	12.0	3.9	10.2	16.0	17.7	67.6	100
20-29	15.8	9.2	4.6	3.3	9.8	9.1	6.9	73.2	612
30-39	18.3	12.2	7.1	4.6	14.0	13.2	11.6	69.5	952
40-49	19.8	13.6	5.7	5.9	12.7	12.6	12.5	69.8	739
Marital status									
Currently married									
Married only once for:	16.9	10.3	5.3	3.9	11.3	10.4	8.9	72.4	2,078
<5 years	14.0	8.1	5.2	2.0	8.4	8.3	7.3	77.7	301
5-10 years	16.7	10.1	4.2	3.0	11.4	9.4	6.7	71.4	492
>10 years	15.3	9.5	5.4	4.0	10.8	9.6	8.7	73.9	1,107
Married more than once	32.3	20.1	8.3	8.6	19.1	21.5	18.4	56.3	178
Divorced/separated	41.2	41.9	20.7	14.9	28.2	41.0	46.5	35.7	107
Widowed	20.1	13.6	7.8	7.0	15.0	13.8	13.2	69.2	218
Number of living children									
0	20.1	11.2	8.2	3.9	10.1	13.5	12.1	69.5	199
1-2	16.7	10.8	5.8	3.7	10.7	12.0	9.7	72.7	807
3-4	16.5	12.0	6.2	5.1	11.8	13.4	10.3	69.7	740
5+	21.6	13.9	6.3	5.5	15.8	10.2	12.8	68.8	657
Education									
No education	16.1	12.1	6.1	5.4	11.4	11.6	10.9	72.2	746
Primary	19.4	12.5	7.1	4.9	14.1	12.4	11.5	69.1	1,352
Secondary and higher	18.6	9.9	2.9	1.6	7.3	11.7	8.5	72.3	306
Employment status									
Employed for cash	21.4	14.8	6.5	5.0	14.5	14.8	12.7	65.7	866
Not employed for cash	15.9	9.8	5.7	4.4	10.8	11.0	9.3	74.5	958
Not employed	17.6	11.6	6.7	4.4	11.9	9.8	11.0	71.0	579
Husband's education									
No education	17.9	14.3	7.4	6.0	15.6	13.3	13.3	68.9	354
Primary	19.6	12.7	6.2	4.7	13.0	12.5	11.5	69.8	1,303
Secondary and higher	15.9	9.7	5.7	3.6	9.8	10.8	8.4	72.7	710
Interspousal age difference									
Wife older than husband									
by 2+ years	16.2	11.5	4.8	5.0	14.1	13.4	10.5	69.7	273
About the same age (difference +1 to -1 year)	13.3	8.8	5.4	3.4	9.4	8.1	7.2	76.9	540
Husband older than wife by:									
2-4 years	18.8	11.5	5.2	4.3	13.7	10.0	10.0	70.8	635
5-9 years	15.9	8.3	5.1	2.4	9.2	10.4	7.0	72.9	429
10+ years	22.1	11.5	5.2	5.7	9.0	14.0	10.2	69.0	187
Not currently married	27.1	22.9	12.0	9.6	19.4	22.8	24.2	58.1	325
Total	18.3	12.0	6.2	4.7	12.4	12.1	10.9	70.5	2,403

Note: The table is based on information for the current or most recent husband. Total includes 36 women for whom information on husband's education is not available, and 14 women for whom information on husband's age minus wife's age is not available.

16.5 INTERSPOUSAL VIOLENCE

Violence between spouses can take many forms: emotional, physical, sexual, or a combination of these. Sometimes such violence results in measurable health consequences such as physical injuries that require medical attention. Husbands are not always the perpetrators of spousal violence; sometimes wives initiate spousal violence. This section discusses several aspects of spousal violence in Cambodia.

Prevalence of violence by husbands

As explained in Section 16.2, the prevalence of emotional, physical, and sexual violence by husbands against wives was measured using a conflict tactics scale approach. Table 16.5 shows the percentage of women who reported experiencing the different types of violence by background characteristics. Note that the different types of violence are not mutually exclusive, and some women reported experiencing multiple forms of violence.

Eighteen percent of ever-married women reported experiencing emotional violence by husbands, 16 percent reported physical violence (13 percent experienced only the less severe forms of violence, and 4 percent experienced the more severe forms of violence¹), and 4 percent reported sexual violence. There is, as expected, considerable overlap between the types of violence experienced by women: 17 percent reported physical or sexual violence and 25 percent reported physical, sexual, or emotional violence. The prevalence of physical violence by husbands as estimated by the CDHS 2000 is almost identical to the rate estimated by the 1996 Household Survey on Domestic Violence in Cambodia (Ministry of Women's Affairs and Project Against Domestic Violence, 1996). That survey also found that 16 percent of the women surveyed had been physically abused by their partner.

The prevalence of different types of violence varies with age. Women age 15-19 are much less likely to have experienced each kind of violence than older women. Women who are divorced or separated reported the highest rates of violence: 38 percent experienced emotional violence, 36 percent experienced physical violence, and 14 percent experienced sexual violence at the hands of their last husband. These relatively high rates of marital violence (and also of violence during pregnancy and the high degree of marital control noted in Tables 16.3 and 16.4, respectively) are perhaps a reflection of the reason these women are divorced and of a greater willingness to disclose violence among women who are no longer with the abusive husband. Women who are currently married but have been married more than once reported somewhat higher rates of violence than other currently married women who have been married only once. For example, 22 percent of currently married women who have been married more than once reported physical or sexual violence, compared with 16 percent of women who are currently married and have been married only once. Among currently married women who have been married only once, the prevalence of physical or sexual violence is relatively low for women who have been married less than 5 years (11 percent) but does not vary between women married for five to ten years (17 percent) and more than ten years (16 percent). Women with one or two living children are less likely (15 percent) than women with no children (18 percent) or more than two children (19 to 20 percent) to report emotional violence, while the prevalence of physical violence increases steadily with number of

¹ Note that women who have experienced both less severe and severe violence are tabulated as having experienced severe violence.

Table 16.5 Marital violence

Percentage of ever-married women who have ever suffered emotional, physical, or sexual violence by their husband, by background characteristics, Cambodia 2000

Background characteristic	Type of violence							Number of women
	Emotional violence	Physical violence			Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	
		Less severe	More severe	Total				
Age								
15-19	10.8	4.5	0.0	4.5	1.2	4.5	12.9	100
20-29	17.6	12.8	4.2	17.0	3.7	17.9	25.3	612
30-39	19.0	13.9	3.8	17.7	3.7	18.2	26.6	952
40-49	17.2	11.7	4.4	16.1	3.8	16.6	24.2	739
Marital status								
Currently married								
Married only once for:	16.3	12.4	3.1	15.5	3.1	16.1	23.5	2,078
<5 years	11.7	8.9	1.3	10.2	2.8	11.4	17.5	301
5-10 years	18.0	11.5	4.7	16.1	3.7	16.5	24.1	492
>10 years	15.8	13.3	2.3	15.7	2.7	16.2	23.8	1,107
Married more than once	22.3	15.0	6.9	21.9	5.0	21.9	29.9	178
Divorced/separated	38.2	18.2	17.8	36.0	13.9	37.4	49.7	107
Widowed	21.8	11.5	4.3	15.8	3.3	16.5	27.1	218
Number of living children								
0	17.8	5.6	1.7	7.3	2.5	7.9	20.0	199
1-2	14.7	11.0	4.0	15.0	3.0	15.8	21.8	807
3-4	18.7	13.8	4.0	17.7	4.2	18.3	27.5	740
5+	20.4	15.2	4.3	19.5	4.2	20.0	27.5	657
Education								
No education	18.0	15.7	4.3	19.9	4.7	20.4	26.8	746
Primary	18.9	12.0	3.6	15.6	3.3	16.4	25.9	1,352
Secondary and higher	11.9	7.5	4.4	11.9	2.4	12.0	16.4	306
Employment status								
Employed for cash	19.1	13.6	4.0	17.6	4.7	18.2	25.7	866
Not employed for cash	16.9	11.0	3.2	14.2	3.0	15.1	23.8	958
Not employed	17.2	13.6	4.9	18.5	3.0	18.7	25.8	579
Total	17.8	12.6	3.9	16.4	3.6	17.1	25.0	2,403

Note: The table is based on information for the current or most recent husband.

living children from 8 percent for women with no children to 20 percent for women with five or more living children. The prevalence of physical or sexual violence falls steadily with level of education, from 20 percent for women with no education to 16 percent for women with primary education and 12 percent for women with secondary or higher education. The prevalence of emotional violence (12 percent) is relatively low only for women with secondary or higher education and does not differ much between women with no education (18 percent) and only primary education (19 percent). There is little variation in violence by employment status, although women who are employed but do not earn cash are slightly less likely than other women to have reported most forms of violence.

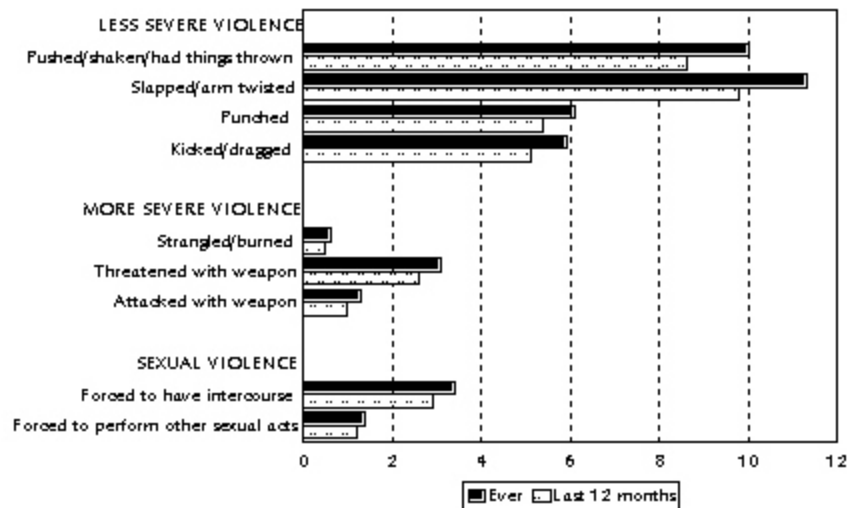
Frequency of physical or sexual violence by husbands

To determine how many women continue to experience violence at the present time, the CDHS 2000 asked, for each act ever committed by the husband (current or last if not currently married), the number of times that he committed the act in the 12 months preceding the survey. Figure 16.1 shows for each type of physical or sexual act of violence, the percentage of ever-married women who reported ever having been subjected to the act and the percentage who reported having

been subjected to the act in the 12 months preceding the survey. Table 16.6 shows the actual frequency in the 12 months preceding the survey of any physical or sexual violence for women who reported ever experiencing physical or sexual violence by their husband. If women reported more than one type of violent act, the frequency tabulated in Table 16.6 is for the act that was committed most often.

From Figure 16.1, it is clear that the majority of women who have ever experienced any physically or sexually violent act have also experienced it recently (i.e., in the 12 months preceding the survey). Among the different physically violent acts, the ones most often reported by women include being slapped or having their arm twisted, and being pushed, shaken, or having something thrown at them. Ten percent of women reported having been slapped or having their arm twisted and 9 percent reported having been pushed, shaken, or had things thrown at them by their husband in the 12 months preceding the survey. The violent act least reported was being attacked with a weapon; even so, 1 percent of women were attacked with a weapon and 3 percent were threatened with a weapon in the 12 months preceding the survey. Three percent of women reported sexual violence in the form of being forced to have intercourse, and 1 percent reported being forced to perform other sexual acts.

Figure 16.1 Percentage of Women Who Have Experienced Different Forms of Violence Ever (Since Age 15) and in the 12 Months Preceding the Survey



EDSC 2000

Table 16.6, which is based on women who reported ever experiencing spousal violence, shows that almost nine out of ten women who had experienced physical or sexual violence by their husband had experienced the violence in the 12 months preceding the survey. Twenty-nine percent had experienced spousal violence frequently (three or more times) in the 12 months preceding the survey. Twenty-five percent of women age 20-29 reported experiencing violence three or more times in the past 12 months, compared with 30 percent of older women. However, the oldest women (age 40-49) were less likely than younger women to have experienced recent violence. Currently married women who had been married more than once were most likely (40 percent) to have experienced violence frequently in the 12 months preceding the survey. By duration of current marriage, women who had been married for more than 10 years were less likely (26 percent) than other women to have reported frequent violence in the recent past. Women with one or two children were less likely

Table 16.6 Frequency of spousal violence

Percent distribution of ever-married women who reported physical or sexual violence by their husband by maximum frequency of any form of such violence in the 12 months prior to the survey, according to background characteristics, Cambodia 2000

Background characteristic	Maximum frequency of any type of physical or sexual violence in the 12 months prior to the survey					Total	Number
	0	1-2	3-5	>5	Don't know/missing		
Age							
15-19	*	*	*	*	*	*	4
20-29	8.7	65.2	17.8	7.4	1.0	100.0	110
30-39	7.8	60.8	25.4	4.9	1.1	100.0	174
40-49	14.9	54.0	20.9	9.4	0.9	100.0	123
Marital status							
Currently married							
Married only once for:	7.3	61.9	23.1	6.5	1.2	100.0	334
<5 years	(4.0)	(64.4)	(31.6)	(0.0)	(0.0)	100.0	34
5-10 years	10.1	57.4	23.4	7.8	1.3	100.0	81
>10 years	6.9	65.2	18.4	7.7	1.7	100.0	180
Married more than once	(6.3)	(53.6)	(36.7)	(3.5)	(0.0)	100.0	39
Divorced/separated	(26.2)	(44.0)	(27.8)	(2.0)	(0.0)	100.0	40
Widowed	(17.5)	(59.1)	(7.5)	(15.8)	(0.0)	100.0	36
Number of living children							
0	*	*	*	*	*	*	16
1-2	7.5	64.9	20.1	5.8	1.7	100.0	128
3-4	8.6	58.3	25.9	5.6	1.5	100.0	135
5+	13.6	57.3	19.2	9.9	0.0	100.0	132
Education							
No education	12.7	60.3	21.2	5.8	0.0	100.0	152
Primary	8.3	57.0	24.6	8.7	1.4	100.0	221
Secondary and higher	(10.0)	(75.6)	(11.5)	(0.0)	(2.9)	100.0	37
Employment status							
Employed for cash	16.2	53.7	24.2	4.6	1.3	100.0	157
Not employed for cash	6.7	68.2	16.8	8.3	0.0	100.0	145
Not employed	5.7	57.7	26.6	8.1	1.9	100.0	109
Total	10.1	59.9	22.2	6.8	1.0	100.0	410

Note: The table is based on information for the current or most recent husband. 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.

than women with more children to have reported frequent spousal violence in the year preceding the survey, although it is women with five or more children who were most likely not to have experienced any violence in the same period. Women with primary education were more likely to have experienced frequent violence in the 12 months preceding the survey: 33 percent of women with primary education reported experiencing frequent violence, compared with 12 percent of women who had secondary or higher education and 27 percent of women with no education. By employment status, women who were not employed were most likely (35 percent) to have experienced frequent violence and women who were employed but did not earn cash were least likely (25 percent) to have experienced frequent violence in the year preceding the survey. Women who were employed for cash were three times as likely as women in other employment statuses to have not experienced any recent violence.

Initiation of violence by husband

To study the timing of the initiation of marital violence, women who reported any spousal physical or sexual violence were asked, “How long after you got married to your (last) husband did (this/any of these things) first happen?” Table 16.7 shows the timing of the initiation of violence in relation to the start of the marriage by current marital status and duration of marriage for women married only once.

From Table 16.7, it is clear that in the majority of cases, initiation of violence takes place early in the marriage. In three-fifths of marriages, violence first occurred within five years of marriage, and in one-third of marriages it first occurred within two years. The median duration of marriage at which violence first occurred is four years; that is to say, for 50 percent of women who have experienced any violence in their marriage, the violence began within the first four years of marriage. Women who are currently not married are more likely to have experienced violence within the first two years of marriage (39 percent) than other women, followed by women who are currently married but have been married more than once (37 percent). However, late initiation of violence in a marriage is not unknown. An examination of the onset of violence by duration of marriage for women for whom duration can be estimated (i.e., women who are currently married and have been married only once) shows that 29 percent of women who have been married for ten or more years reported initiation of violence after at least ten years of marriage. For these women, the median duration of marriage at which violence first occurred is almost six years. One percent of all ever-married women who had experienced spousal violence reported that the violence was initiated before marriage, and 8 percent of divorced women reported that the violence first took place after divorce.

Table 16.7 Onset of spousal violence

Percent distribution of ever-married women who have experienced physical or sexual violence by their husband by number of years between marriage and first episode of violence, according to current marital status and number of marriages, Cambodia 2000

Current marital status	Onset of violence								Total	Median number of years	Number
	Before marriage	Years between marriage and first experience of violence					After divorce	Don't know/missing/inconsistent			
		<1	1-2	3-5	6-9	10 or more					
Currently married											
Married only once	1.4	4.7	26.7	29.3	11.3	18.8	NA	7.7	100.0	4.4	295
Married only once for:											
< 6 years	(0.0)	(21.1)	(56.3)	(10.6)	NA	NA	NA	(11.9)	100.0	(2.0)	45
6-9 years	0.0	6.8	20.4	43.0	16.7	NA	NA	13.1	100.0	3.9	57
10 or more years	2.2	0.3	21.8	29.6	12.3	28.7	NA	5.2	100.0	5.7	193
Married more than once	(3.5)	(9.5)	(27.9)	(27.7)	(13.7)	(11.3)	NA	(6.4)	100.0	(3.6)	39
Not currently married	0.5	4.0	35.1	19.6	15.6	17.4	7.7	0.0	100.0	3.6	76
Total	1.4	5.0	28.4	27.4	12.3	17.8	1.5	6.1	100.0	4.1	410

NA = Not applicable

Note: The table is based on information for the current or most recent marriage. Figures in parentheses are based on 25-49 unweighted cases.

Consequences of violence

Independent of the questions on the different types of violent acts, women were asked the following: “Did the following ever happen because of something your (last) husband did to you: a) you had bruises and aches? b) you had an injury or a broken bone? and c) you went to a health facility as a result of something your husband had done to you?” This sequence of questions had two purposes. The first was to document the physical consequences of violence, by asking about different types of outcomes (namely, specific health consequences and the necessity of seeking medical help). The second was to give women yet another opportunity to disclose violence if they were still hesitating. Some women may be more comfortable reporting what happened to them rather than what their husband actually did. However, in Cambodia, no woman who had not previously reported spousal violence said yes to any of these questions. In other words, women who report injuries have also reported at least one form of spousal abuse.

The three “consequences” asked about cannot be taken to be measures of the severity of violence. Instead a “yes” on each suggests only that the woman experienced adverse health outcomes because of something the husband did. In addition, the interpretation of responses to (c) is likely to be confounded by the fact that not all women who need to access a health facility are in a position to do so. Nonetheless, some insight into the relationship of these “outcomes” to the type/severity of violence can be obtained by tabulating, as in Table 16.8, the 'consequences' data by the type of violence reported earlier by women.

Table 16.8 Physical consequences of spousal violence

Percentage of ever-married women who reported specific physical consequences that resulted from something their husband did to them, by type of violence reported, Cambodia 2000

Type of violence experienced	Had bruises and aches		Had injury or broken bone		Had to visit health facility		Total
	Ever	Last year	Ever	Last year	Ever	Last year	
Emotional violence							
Ever	25.3	21.1	4.5	3.7	5.5	4.3	427
At least once in past 12 months	23.9	22.2	4.3	4.1	4.2	4.0	385
Less severe physical violence							
Ever	32.4	27.5	4.7	3.6	3.4	2.8	302
At least once in past 12 months	31.3	30.9	4.4	4.0	3.2	3.2	268
Severe physical violence							
Ever	58.4	45.6	13.5	11.5	17.1	13.7	93
At least once in past 12 months	53.8	52.5	13.4	13.4	14.8	14.8	80
Sexual violence							
Ever	48.3	40.5	10.1	6.8	9.2	7.1	87
At least once in past 12 months	47.9	46.6	9.2	7.9	8.1	8.1	76
Physical or sexual violence							
Ever	37.1	30.6	6.5	5.2	6.4	5.2	410
At least once in past 12 months	35.2	34.4	6.2	5.9	5.6	5.6	365
No violence reported	0.0	0.0	0.0	0.0	0.0	0.0	1,803
Total	6.5	5.4	1.1	0.9	1.2	1.0	2,403

Note: The table is based on information for the current or most recent husband.

Among ever-married women, 7 percent reported ever having had bruises or aches and 5 percent reported having bruises and aches in the past year because of something their husband did. The occurrence of bruises and aches is much more common than the occurrence of injuries and broken bones. One percent of all women reported receiving an injury or a broken bone because of something their husband did. One percent of all women also reported visiting a health facility because of something their husband did.

When these data are examined by the type of violence reported by women, however, it becomes evident that women's experience of the listed consequences is closely related to their experience of interspousal violence. For example, among women who reported ever experiencing severe physical violence, 58 percent reported having bruises and aches and 46 percent reported having them in the prior 12 months, 14 percent reported having had an injury or a broken bone and 12 percent reported injuries and broken bones in the prior 12 months, and 17 percent reported having had to go to a health facility and 14 percent had to do so in the prior 12 months. The rates for the various physical outcomes remain high even if the sample is restricted to women who experienced severe physical violence in the prior 12 months. For women experiencing less severe violence, these rates are all lower than for women who experienced more severe violence but are nonetheless substantial. For example, 28 percent of women who ever experienced less severe physical violence reported receiving bruises and aches in the prior 12 months, 4 percent reported having had injuries or broken bones, and 3 percent reported having had to visit a health facility. Women who reported sexual violence are likely to have a high incidence of the listed physical outcomes, in part because almost all women who reported sexual violence also reported some other form of physical violence. Similarly, the bruises, aches, injuries, and broken bones reported by women who experienced emotional violence are in part due to the overlap of emotional violence with other types of violence, but may also be due to some women not reporting the acts that resulted in these outcomes within the categories of physical and sexual violence they were provided.

Interspousal violence by spousal characteristics and women's status indicators

Table 16.9 allows a more detailed examination of how women's experience of violence varies with the characteristics of their husband and marriage, by family structure, and by their status within the household.

Since the perpetrators of interspousal violence are usually husbands, the characteristics of husbands are important in understanding this type of violence. In Table 16.9, women's experience of violence is examined by their husband's education level and alcohol consumption. As expected, women are less likely to have experienced violence the more educated their husband is. The prevalence of each type of violence declines sharply with increases in the husband's level of education; 66 percent of women whose husband had no education reported no violence, compared with 81 percent of women whose husband had secondary or higher education. Nonetheless, wives of one out of five of the more educated husbands have experienced some form of violence. Women's experience of violence varies with the extent of alcohol consumption by the husband. Women whose husband gets drunk often are about 3.5 times more likely to have experienced physical or sexual violence (ever or in the preceding 12 months) than women whose husband does not drink, does drink but does not get drunk, or gets drunk only sometimes. Notably, however, women whose husband drinks but does not get drunk are least likely to experience any violence. Overall, 88 percent of women whose husband drinks but never gets drunk have not experienced any violence, compared with 79 percent of women whose husband either does not drink or gets drunk

Table 16.9 Spousal violence, women's status, and spousal characteristics

Percentage of ever-married women who experienced specific types of violence by their husband ever (since age 15) and in the 12 months prior to the survey, and percentage who have been violent to their husband, by selected women's status, spousal, and household characteristics, Cambodia 2000

Characteristic	Emotional violence		Physical violence		Sexual violence		Physical or sexual violence		Experienced no emotional, physical, or sexual violence	Violence against husband by respondent		Number
	Ever	Last 12 mo.	Ever	Last 12 mo.	Ever	Last 12 mo.	Ever	Last 12 mo.		Ever	Last 12 mo.	
Husband's education												
No education	24.0	22.7	22.6	20.5	5.1	4.8	24.1	22.0	66.3	3.7	3.0	354
Primary	17.6	15.4	17.3	15.1	4.0	3.5	17.9	15.9	74.3	4.6	4.0	1,303
Secondary and higher	15.1	13.9	12.1	10.5	2.4	1.9	12.2	10.7	80.5	1.5	0.9	710
Interspousal age difference												
Wife older than husband by 2+ years	21.8	20.2	20.0	18.0	5.1	4.7	21.5	19.5	69.2	3.0	1.9	273
About the same age (difference -1 to +1 year)	15.3	14.7	13.4	12.5	2.9	2.9	14.3	13.5	79.0	3.0	2.4	540
Husband older than wife by:												
2-4 years	17.7	16.5	16.9	14.8	3.9	3.6	17.1	15.4	74.4	3.5	3.0	635
5-9 years	13.2	12.2	14.8	13.4	1.3	1.0	14.9	13.6	78.9	5.4	5.0	429
10+ years	12.3	11.3	10.8	9.8	2.5	2.0	11.2	10.2	83.2	2.9	2.6	187
Not currently married	27.2	21.0	22.5	17.6	6.8	4.8	23.4	18.3	65.4	2.4	1.7	325
Interspousal education difference												
Husband has more education	16.7	14.8	15.3	13.2	3.4	2.9	15.7	13.7	76.7	3.5	2.9	1,402
Wife has more education	24.4	22.1	21.0	18.7	5.2	4.7	22.2	20.2	68.0	4.9	4.3	367
Both have equal education	13.4	11.8	13.4	12.8	2.2	1.9	14.0	13.4	78.7	1.9	1.8	348
Neither educated	20.9	20.3	21.0	18.4	5.3	4.9	22.4	19.4	69.6	3.8	3.3	229
Alcohol consumption by husband												
Never drinks	15.8	14.3	11.8	10.8	2.7	2.5	12.4	11.4	79.0	2.7	2.4	797
Drinks but never gets drunk	7.5	7.5	9.5	7.9	3.5	3.5	10.2	8.6	87.8	3.4	3.4	133
Gets drunk sometimes	15.0	13.0	13.2	11.3	2.5	1.9	13.8	11.9	78.7	2.9	2.4	1,189
Gets drunk very often	39.8	37.2	46.0	41.1	11.2	10.0	47.2	42.4	42.6	8.7	6.4	285
Woman can refuse sex to husband¹												
Yes for all reasons	18.1	16.0	17.0	14.7	3.8	3.2	17.5	15.1	74.7	3.6	2.8	1,503
No for one or more reasons	17.2	16.1	15.5	14.2	3.4	3.1	16.4	15.3	75.6	3.4	3.2	900
Number of household decisions² respondent participates in:												
0 decision	*	*	*	*	*	*	*	*	*	*	*	16
1-2 decisions	25.6	23.0	14.1	11.4	8.5	5.8	16.6	14.0	68.4	3.9	3.9	73
3 or more decisions	17.5	15.7	16.5	14.6	3.5	3.1	17.1	15.2	75.2	3.5	2.9	2,314
Index of marital control³ exercised by husband:												
0 item (least control)	9.2	8.5	9.6	8.6	1.1	1.1	10.1	9.2	84.7	2.6	2.2	1,693
1-2 items	30.8	28.7	24.9	22.1	4.6	4.3	26.0	23.3	59.7	4.1	3.1	447
3-6 items (most control)	51.0	42.9	46.1	39.5	18.2	14.6	46.8	40.2	38.9	8.7	7.1	263
Family structure												
Nuclear	18.9	17.0	18.1	15.7	4.2	3.5	18.8	16.4	73.2	3.6	2.9	1,505
Non-nuclear	15.9	14.5	13.7	12.5	2.7	2.6	14.2	13.2	78.0	3.4	2.9	898
Total	17.8	16.0	16.4	14.5	3.6	3.2	17.1	15.2	75.0	3.5	2.9	2,403

Note: This table is based on information for the current or most recent husband. Total includes 36 women for whom information on husband's education is not available, and 14 women for whom information on husband's age minus wife's age is not available. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ For the reasons included, see table 15.7

² For the decisions included, see table 15.4

³ For the items included, see table 16.4

only sometimes and 43 percent of women whose husband gets drunk frequently. These results suggest that the incidence of violence is not related to alcohol consumption by the husband but is related to the frequency with which the husband gets drunk.

Large interspousal age and education differences in favor of husbands are likely to be disempowering for women. Thus, Table 16.9 also presents the variation of violence by these two variables. Contrary to expectations, currently married women who are older than their husband are most likely to experience emotional, physical, or sexual violence and women who are ten or more years younger than their husband are least likely to experience emotional, physical, or sexual violence. Among women who are younger than their husband, the risk of most kinds of violence declines with spousal age difference. By spousal education difference, in line with expectations, violence is least common among women who are equally educated as their husband; however, women who have more education than their husband appear to have an equal, or in many cases, a higher risk of experiencing violence than most other women.

Another important characteristic of marriages is the degree of marital control that a husband exercises. It is expected that the higher the degree of marital control, the higher the risk of violence in the marital relationship. Table 16.9 bears this out. Based on the items listed in Table 16.4, the higher the degree of control, the higher the likelihood that the woman has experienced all types of violence. For example, among women in marriages with low marital control (husband does not display any of the listed behaviors), 9 percent each reported ever experiencing emotional violence and physical violence, and 1 percent reported ever experiencing sexual violence, whereas among women in marriages with a high level of marital control (husband displays at least three of the six behaviors), 51 percent reported emotional violence, 46 percent reported physical violence, and 18 percent reported sexual violence. The results for violence in the 12 months preceding the survey by marital control are almost equally dramatic.

The prevalence of violence does not vary by the first of the two empowerment variables (women's agreement with reasons to refuse a husband sex), but does vary, albeit inconsistently, by the number of household decisions that women participate in. The greater the number of decisions women participated in, the less likely they were to experience emotional or sexual violence, but the more likely they are to experience physical violence. For example, 23 percent of women participating in 1-2 household decisions reported emotional violence and 6 percent reported sexual violence in the 12 months preceding the survey, compared with 16 percent and 3 percent, respectively, of women who participated in 3 or more decisions. However, 15 percent of women who participated in 3 or more decisions reported physical violence in the year preceding the survey, compared with 11 percent of women who participated in only 1-2 decisions. Finally, the risk of all kinds of violence is slightly higher for women living in nuclear families (husband and wife with or without children) than in non-nuclear families (all other combinations of adults and children).

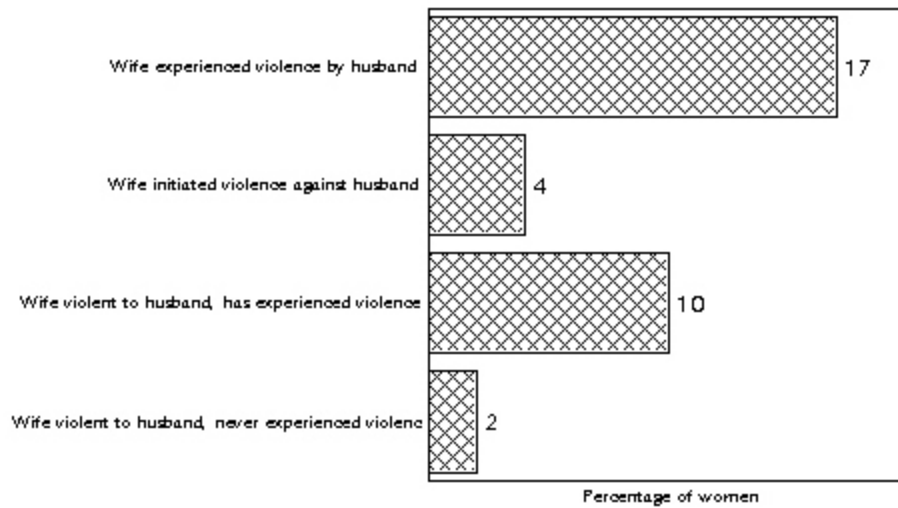
Violence by wives against their husband

Violence by husbands against wives is not the only form of spousal violence. Women may also sometimes be the perpetrators of violence. In most cultures, however, the rate of spousal violence initiated by wives is found to be only a fraction of the rate of spousal violence initiated by husbands. The 1996 Household Survey on Domestic Violence in Cambodia (Ministry of Women's Affairs and Project Against Domestic Violence) found that 3 percent of men reported being physically abused by their wife. In the CDHS 2000, to measure violence by wives against their husband, women were asked, "Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband at times when he was not already beating or physically hurting

you?” Table 16.9 also presents (in the last panel of the table) the percentage of women who say that they have physically abused their husband as well as the percentage who have done so in the 12 months prior to the survey.

Four percent of women reported having hit, slapped, kicked or done something to physically hurt their husband when he was not doing anything to hurt them. Three percent said that they have done so in the 12 months preceding the survey. These rates of violence by women against their husband do not vary between most subgroups of women. There are, however, a few exceptions. Only 2 percent each of women who had a husband with secondary or higher education and women who were married to a man with equal education had ever abused their husband. On the other hand, women whose husband had only primary education, women who were 2-4 years younger than their husband, and women who had more education than their husband were, at 5 percent, more likely than other women to have abused their husband. The rates of abuse by wives were even higher, at 9 percent, for women whose husband got drunk often or who was in a marriage in which the husband displayed excessive marital control. Notably, as shown in Figure 16.2, the percentage of women who abused their husband varies by whether women are themselves abused by the husband. Ten percent of women who were abused also abused their husband, compared with only 2 percent of women who abused their husband but were not themselves abused. These data together suggest that initiation of violence by women against husbands is relatively rare, even in situations where women may feel themselves threatened.

Figure 16.2 Interspousal Violence



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16.6 HELP-SEEKING BEHAVIOR BY WOMEN WHO HAVE EXPERIENCED VIOLENCE

The CDHS 2000 asked all women who had reported any physical or sexual violence by their husband, or any physical violence by anyone else, if they had ever tried to get help. Women who said that they sought help were asked questions about from whom they had sought help. Table 16.10 shows the percentage of women who sought help by the perpetrator of the violence and by the frequency of violence in the 12 months preceding the survey.

Overall, one in five women who had experienced violence asked someone for help. Women were most likely to seek help from their own family (63 percent), from other relatives or friends (44 percent), and from their in-laws (12 percent). Few women (1 percent) mentioned medical personnel as a source (data not shown). Women were least likely to have sought help if the perpetrator of violence was their current husband only (15 percent) or persons other than a husband (16 percent). By contrast, one-third of women who experienced violence by their husband and others (35 percent) or women who experienced violence by a previous husband (33 percent) sought help. Among women who were beaten one or more times in the past year, help seeking increased with the frequency of violence, from 16 percent for women who experienced violence only once in the 12 months preceding the survey to 33 percent for women who experienced violence four or more times in the period.

Table 16.10 Help seeking by women who have experienced violence

Percentage of women who reported any physical or sexual violence who tried to get help, by the person who perpetrated the violence and the frequency of violence in the 12 months prior to the survey, Cambodia 2000

	Percentage who have sought help	Number
Persons perpetrating violence		
Husband only	15.0	265
Earlier husband only	33.0	66
Husband and others	34.6	86
Others only	15.6	142
Frequency of violence in past 12 months		
Never	21.3	183
1 time	15.9	179
2-3 times	18.4	116
4 or more times	32.8	62
Total	20.3	559

Note: Total includes 19 women for whom information on frequency of violence is not available.

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A.1 Introduction

The Cambodia Demographic and Health Survey (CDHS) called for a nationally representative sample of 15,300 women between the ages of 15 and 49. It was designed to provide information on fertility and childhood mortality, family planning, and maternal and child health. Survey estimates were produced for 12 individual provinces (Banteay Mean Chey, Kampong Cham, Kampong Chhnang, Kampong Spueu, Kampong Thum, Kandal, Kaoh Kong, Phnom Penh, Prey Veang, Pousat, Svay Rieng, and Takaev) and for the following five groups of provinces:

- Group 1: Bat Dambang and Krong Pailin
- Group 2: Kampot, Krong Preah Sihanouk, and Krong Kaeb
- Group 3: Kracheh, Preah Vihear, and Stueng Traeng
- Group 4: Mondol Kiri and Rotanak Kiri
- Group 5: Otdar Mean Chey and Siem Reab.

In addition, a subsample of households was selected to collect information on women's status, domestic violence, and the prevalence of anemia among children under five years of age and women.

The master sample developed in 1998 by the National Institute of Statistics (NIS) served as the sampling frame for the CDHS 2000. The master sample is based on the 1998 Cambodia General Population Census and consists of 600 villages selected with probability proportional to the number of households within the village. Villages are listed with the name and code of the province, district, and commune; the total population count; and the number of enumeration areas (EAs), households, and segments. Enumeration areas were created during the cartography conducted in preparation for the 1998 Census, and maps showing their boundaries within villages were available for most of them at NIS. A segment in a village corresponds to a block of about ten households. Segments were created only for villages retained in the master sample, and maps showing their boundaries were also available for all of them.

A.2 CHARACTERISTICS OF THE CDHS SAMPLE

The sample for the CDHS 2000 is a stratified sample selected in three stages. As for the master sample, stratification was achieved by separating every reporting domain into urban and rural areas. The sample was selected independently in every stratum.

The master sample contains a small number of villages for some of the provinces. For this reason, additional villages were directly selected from the census frame in order to reach the required sample size in these provinces. In the first stage, 471 villages were selected with probability proportional to the number of households in the village. Of the 471 villages, 63 were directly selected from the 1998 Census frame. In the second stage, 5 or fewer segments were retained from each of the villages selected from the master sample, while 1 EA was retained from each of the 63 villages directly selected from the 1998 Census frame. Each of these EAs consists of several segments.

A household listing was carried out in all selected segments and EAs, and the resulting lists of households served as the sampling frame for the selection of households in the third stage. All women 15-49 were interviewed in selected households.

A.3 SAMPLE ALLOCATION

The following table shows the household distribution according to the 1998 Cambodia General Population Census.

Domain	Urban	Rural	Total
Cambodia	322,246	1,866,417	2,188,663
Banteay Mean Chey	18,374	93,482	111,856
Kampong Cham	8,236	304,605	312,841
Kampong Chhnang	7,692	74,946	82,638
Kampong Spueu	7,552	108,176	115,728
Kampong Thum	12,295	94,613	106,908
Kandal	10,266	195,923	206,189
Kaoh Kong	5,400	19,564	24,964
Phnom Penh	97,296	76,382	173,678
Prey Veang	10,918	183,267	194,185
Pousat	10,856	57,379	68,235
Svay Rieng	4,112	94,132	98,244
Takaev	7,257	147,773	155,030
Group 1			
Bat Dambang	25,584	122,772	148,356
Krong Pailin	4,133	0	4,133
Group 2			
Kampot	6,060	98,933	104,993
Krong Preah Sihanouk	28,015	0	28,015
Krong Kaeb	5,369	0	5,369
Group 3			
Kracheh	14,791	34,535	49,326
Preah Vihear	4,133	17,358	21,491
Stueng Traeng	4,426	9,897	14,323
Group 4			
Mondol Kiri	1,276	4,381	5,657
Rotanak Kiri	3,193	13,565	16,758
Group 5			
Otdar Mean Chey	4,027	8,504	12,531
Siem Reab	20,985	106,230	127,215

It had been decided to allocate to every reporting domain a minimum sample size of 900 women with complete interviews. The sample allocation is shown in Table A.2.

Domain	Urban	Rural	Total
Cambodia	2,455	12,845	15,300
Banteay Mean Chey	148	752	900
Kampong Cham	24	876	900
Kampong Chhnang	84	816	900
Kampong Spueu	59	841	900
Kampong Thum	104	796	900
Kandal	45	855	900
Kaoh Kong	195	705	900
Phnom Penh	504	396	900
Prey Veaeng	51	849	900
Pousat	143	757	900
Svay Rieng	38	862	900
Takaev	42	858	900
Group 1			900
Bat Dambang	151	725	876
Krong Pailin	24	0	24
Group 2			900
Kampot	39	644	683
Krong Preah Sihanouk	182	0	182
Krong Kaeb	35	0	35
Group 3			900
Kracheh	156	365	521
Preah Vihear	44	183	227
Stueng Traeng	47	105	152
Group 4			900
Mondol Kiri	51	176	227
Rotanak Kiri	128	545	673
Group 5			900
Otdar Mean Chey	26	55	81
Siem Reab	135	684	819

The number of households that would yield the target number of 15,300 women with complete interviews was calculated as follows:

$$\text{Number of households} = \frac{\text{Number of women}}{\text{Number of women per household} \times \text{Overall response rate}}$$

According to the 1998 Census results, there are 1.51 women age 15-49 per urban household and 1.27 per rural household. The overall response rate is expected to be 90 percent with 95 percent at both household and individual levels. Using these two parameters in the above equation, we would expect to select 13,044 households in order to yield the target sample of women.

Table A.3 Number of households to yield the target number of women

Domain	Urban	Rural	Total
Cambodia	1,808	11,236	13,044
Banteay Mean Chey	109	658	767
Kampong Cham	18	766	784
Kampong Chhnang	62	714	776
Kampong Spueu	43	736	779
Kampong Thum	77	696	773
Kandal	33	748	781
Kaoh Kong	143	617	760
Phnom Penh	371	346	717
Prey Veang	38	743	781
Pousat	105	662	767
Svay Rieng	28	754	782
Takaev	31	751	782
Group 1			
Bat Dambang	111	634	745
Krong Pailin	18	0	18
Group 2			
Kampot	29	563	592
Krong Preah Sihanouk	134	0	134
Krong Kaeb	26	0	26
Group 3			
Kracheh	115	319	434
Preah Vihear	32	160	192
Stueng Traeng	35	92	127
Group 4			
Mondol Kiri	38	154	192
Rotanak Kiri	94	477	571
Group 5			
Otdar Mean Chey	19	48	67
Siem Reab	99	598	697

The number of clusters (villages) to be selected from each stratum was calculated by dividing the number of women in the stratum by the average take in the cluster. Analytical studies of surveys of the same nature suggest that the optimum number of women to be interviewed is about 20 to 25 per urban cluster and 30 to 35 per rural cluster. By interviewing on average 27 women per urban cluster and 34 women per rural cluster (i.e., selecting on average 20 households per urban cluster and 30 households per rural cluster), the distribution of sample points is as follows:

Table A.4 Number of clusters				
Domain		Urban	Rural	Total
Cambodia		94	377	471
Banteay Mean Chey		6	22	28
Kampong Cham		1	26	27
Kampong Chhnang		3	24	27
Kampong Spueu		2	25	27
Kampong Thum		4	23	27
Kandal		2	25	27
Kaoh Kong		7	21	28
Phnom Penh		19	12	31
Prey Veang		2	25	27
Pousat		6	22	28
Svay Rieng		1	25	26
Takaev		2	25	27
Group 1				
	Bat Dambang	6	21	27
	Krong Pailin	1	0	1
Group 2				
	Kampot	1	19	20
	Krong Preah Sihanouk	7	0	7
	Krong Kaeb	1	0	1
Group 3				
	Kracheh	6	11	17
	Preah Vihear	2	5	7
	Stueng Traeng	2	3	5
Group 4				
	Mondol Kiri	2	5	7
	Rotanak Kiri	5	16	21
Group 5				
	Otdar Mean Chey	1	2	3
	Siem Reab	5	20	25

A.4 SAMPLING PROBABILITIES

Sampling probabilities were calculated separately for each sampling stage. We use the following notations:

- P_{1i} first-stage sampling probability of the i^{th} village
- P_{2i} second-stage sampling probability within the i^{th} village (segments)
- P_{3i} third-stage sampling probability within the i^{th} village (households)

Let a be the number of villages selected in a given stratum, M_i the number of households according to the census in the i^{th} village, and M_i the total number of households in the stratum. The probability of inclusion of the i^{th} village in the CDHS sample is calculated as follows:

$$P_{1i} = \frac{aM_i}{\sum M_i}$$

In the second stage, k segments were selected in each village (each EA consisting of segments). The probability of selection for the segments in the i^{th} village is—

$$P_{2i} = \frac{k}{S_i}$$

where S_i is the total number of segments within the i^{th} village. S_i is computed as $M_i/10$, rounded to the nearest whole number.

The probability of selection for households within the i^{th} village is given by—

$$P_{3i} = \frac{b}{L_i}$$

where L_i is the number of households actually listed by the CDHS enumerator.

In each village, a systematic selection of households was done and the selection interval within the i^{th} village was calculated as follows:

$$I_i = \frac{1}{P_{3i}}$$

Because of the nonproportional allocation of the sample to the different 17 reporting domains, sampling weights were provided to ensure the actual representativeness of the sample at the national level.

Table A.5 Sample implementation

Percent distribution of households and eligible women in the Cambodia DHS sample by results of the household and individual interviews and household, eligible women, and overall response rates, according to urban-rural residence, Cambodia 2000

Result	Residence		Total
	Urban	Rural	
Selected households			
Completed (C)	96.0	95.4	95.5
Household present but no competent respondent at home (HP)	0.5	0.7	0.7
Refused (R)	0.1	0.1	0.1
Household absent (HA)	0.7	1.2	1.1
Household no longer exists (HNL)	2.6	2.6	2.6
Other (O)	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number of households	1,892	10,918	12,810
Household response rate (HRR)¹			
	99.4	99.2	99.2
Eligible women			
Completed (EWC)	98.9	98.6	98.7
Not at home (EWNH)	0.4	0.8	0.7
Refused (EWR)	0.0	0.1	0.1
Incapacitated (EWI)	0.3	0.3	0.3
Other (EWO)	0.4	0.1	0.2
Total	100.0	100.0	100.0
Number of women	2,656	12,901	15,557
Eligible woman response rate (EWRR)²			
	98.9	98.6	98.7
Overall response rate (ORR)³			
	98.3	97.8	97.9

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, refused, household absent, household no longer exists, and "other." The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, refused, incapacitated, and "other." The overall response rate is the product of the household and woman response rates.

¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as—

$$\frac{C}{C + HP + R} * 100$$

² Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as—

$$\frac{EWC}{EWC + EWNH + EWR + EWI + EWO} * 100$$

³ The overall response rate (ORR) is calculated as—

$$ORR = (HRR * EWRR) \div 100$$

The estimates from a sample survey are affected by two types of errors: 1) nonsampling errors, and 2) sampling errors. Nonsampling 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 2000 Cambodia Demographic and Health Survey (CDHS) to minimize this type of error, nonsampling 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 2000 Cambodia Demographic and Health Survey 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.

A 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 CDHS sample is the result of a multistage stratified design, and consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the CDHS 2000 is the ISSA Sampling Error Module. This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. 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:

$$SE^2(r) = \text{var}(r) = \frac{1}{x^2} \sum_{h=1}^H \left[\frac{(1-f_h)m_h}{m_h-1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi}, \text{ and } z_h = y_h - r \cdot X_h$$

where h represents the stratum which varies from 1 to H ,
 m_h is the total number of clusters selected in the h^{th} stratum,
 y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
 x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
 f is 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* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the CDHS 2000, there were 471 non-empty clusters. Hence, 470 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

$$r_i = k r - (k-1) r_{(i)}$$

where r is the estimate computed from the full sample of 471 clusters,
 $r_{(i)}$ is the estimate computed from the reduced sample of 470 clusters (i^{th} cluster excluded), and
 k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which 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. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the CDHS 2000 are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole and for urban and rural areas. 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.4 present the value of the statistic (R), its standard error (SE), the number of unweighted (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 DEFT is considered undefined when the standard error considering 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 15-49*) can be interpreted as follows: the overall average from the national sample is 2.585 and its standard error is 0.028. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., $2.585 \pm 2 \times 0.028$. There is a high probability (95 percent) that the *true* average number of children ever born to all women age 15-49 is between 2.529 and 2.641.

Sampling errors are analyzed for the national woman sample and for two separate groups of estimates: 1) means and proportions and 2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.3 percent and 42.1 percent with an average of 5.6 percent; the highest relative standard errors are for estimates of very low values (e.g., *Women currently using norplant*). If estimates of very low values (less than 10 percent) were removed, then the average would drop to 2.7 percent. So in general, the relative standard errors for most estimates for the country as a whole are small, except for estimates of very small proportions. The relative standard error for the total fertility rate is small, 2.0 percent. However, for the mortality rates, the average relative standard error is much higher, 5.7 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *Currently married*, the relative standard errors as a percentage of the estimated mean for the whole country and for the urban areas are 0.8 percent and 2.2 percent, respectively.

For the total sample, the value of the design effect averaged over all variables is 1.41, which means that due to multistage clustering of the sample, the average standard error is increased by a factor of 1.41 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Cambodia 2000

Variable	Estimate	Base population
Urban residence	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Never married (in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	Women 25-49
Had first sexual intercourse before 18	Proportion	Women 25-49
Children ever born	Mean	All women 15-49
Children ever born to women over 40	Mean	Women age 40-49
Children surviving	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive 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 using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using norplant	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using male sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Using public-sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49
Mothers received medical care at birth	Proportion	Births in last 5 years
Had diarrhea in the last 2 weeks	Proportion	Children under 5
Treated with ORS packets	Proportion	Children under 5 with diarrhea in last 2 weeks
Consulted medical personnel	Proportion	Children under 5 with diarrhea in last 2 weeks
Having health 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	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height (< -2 SD)	Proportion	Children under 5 who were measured
Height-for-age (< -2 SD)	Proportion	Children under 5 who were measured
Weight-for-age (< -2 SD)	Proportion	Children under 5 who were measured
Total fertility rate (5 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate (10 years) ¹	Rate	Number of births
Postneonatal mortality rate (10 years) ¹	Rate	Number of births
Infant mortality rate (10 years) ¹	Rate	Number of births
Child mortality rate (10 years) ¹	Rate	Number of births
Under-five mortality rate (10 years) ¹	Rate	Number of births

¹ Five years for national

Table B.2 Sampling errors: National sample, Cambodia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.175	0.004	15351	15351	1.200	0.021	0.168	0.183
No education	0.283	0.009	15351	15351	2.420	0.031	0.265	0.300
Secondary education or higher	0.172	0.007	15351	15351	2.438	0.043	0.157	0.187
Never married (in union)	0.318	0.005	15351	15351	1.216	0.014	0.309	0.327
Currently married (in union)	0.591	0.005	15351	15351	1.201	0.008	0.581	0.600
Married before age 20	0.489	0.006	11787	11733	1.348	0.013	0.477	0.502
Had first sexual intercourse before 18	0.279	0.005	11787	11733	1.285	0.019	0.268	0.289
Children ever born	2.585	0.028	15351	15351	1.239	0.011	2.529	2.641
Children ever born to women over 40	5.362	0.078	3245	3272	1.504	0.015	5.206	5.518
Children surviving	2.209	0.023	15351	15351	1.210	0.010	2.163	2.256
Know any contraceptive method	0.955	0.003	9332	9071	1.484	0.003	0.949	0.961
Know any modern contraceptive method	0.953	0.003	9332	9071	1.446	0.003	0.947	0.959
Ever used any contraceptive method	0.374	0.008	9332	9071	1.528	0.020	0.359	0.389
Currently using any method	0.238	0.007	9332	9071	1.527	0.028	0.225	0.252
Currently using a modern method	0.188	0.006	9332	9071	1.465	0.032	0.176	0.199
Currently using pill	0.045	0.003	9332	9071	1.473	0.070	0.039	0.051
Currently using IUD	0.013	0.002	9332	9071	1.320	0.121	0.010	0.016
Currently using injectables	0.074	0.004	9332	9071	1.562	0.057	0.065	0.082
Currently using norplant	0.001	0.000	9332	9071	1.193	0.421	0.000	0.002
Currently using condom	0.009	0.001	9332	9071	1.316	0.143	0.006	0.012
Currently using female sterilization	0.015	0.002	9332	9071	1.264	0.107	0.012	0.018
Currently using male sterilization	0.002	0.001	9332	9071	1.330	0.350	0.000	0.003
Currently using periodic abstinence	0.027	0.002	9332	9071	1.265	0.078	0.023	0.031
Currently using withdrawal	0.023	0.002	9332	9071	1.369	0.093	0.018	0.027
Using public-sector source	0.448	0.015	1677	1720	1.225	0.033	0.419	0.478
Want no more children	0.352	0.007	9332	9071	1.372	0.019	0.338	0.366
Want to delay at least 2 years	0.134	0.004	9332	9071	1.205	0.032	0.125	0.142
Ideal number of children	3.597	0.019	14446	14260	1.588	0.005	3.559	3.634
Mothers received medical care at birth	0.318	0.013	8834	8175	2.051	0.040	0.293	0.344
Had diarrhea in the last 2 weeks	0.189	0.006	7867	7327	1.274	0.033	0.177	0.201
Treated with ORS packets	0.178	0.013	1591	1385	1.155	0.072	0.153	0.204
Consulted medical personnel	0.216	0.015	1591	1385	1.304	0.070	0.186	0.247
Having health card, seen	0.475	0.019	1329	1253	1.317	0.039	0.438	0.513
Received BCG vaccination	0.714	0.016	1329	1253	1.246	0.022	0.682	0.746
Received DPT vaccination (3 doses)	0.485	0.018	1329	1253	1.294	0.038	0.448	0.522
Received polio vaccination (3 doses)	0.515	0.017	1329	1253	1.213	0.033	0.480	0.549
Received measles vaccination	0.554	0.017	1329	1253	1.192	0.030	0.520	0.587
Fully immunized	0.399	0.018	1329	1253	1.266	0.044	0.364	0.434
Weight-for-height (< -2 SD)	0.150	0.007	3596	3372	1.141	0.048	0.136	0.165
Height-for-age (< -2 SD)	0.446	0.012	3596	3372	1.311	0.026	0.423	0.469
Weight-for-age (< -2 SD)	0.452	0.011	3596	3372	1.197	0.023	0.431	0.474
Total fertility rate (5 years)	3.988	0.079	NA	67118	1.774	0.020	3.830	4.147
Neonatal mortality rate (5 years)	37.277	2.548	9077	8252	1.281	0.068	32.181	42.373
Postneonatal mortality rate (5 years)	57.761	3.501	8675	7639	1.398	0.061	50.758	64.763
Infant mortality rate (5 years)	95.038	4.495	8675	7639	1.428	0.047	86.048	104.028
Child mortality rate (5 years)	32.487	2.233	10614	8185	1.297	0.069	28.022	36.952
Under-five mortality rate (5 years)	124.438	4.907	8675	7639	1.385	0.039	114.624	134.251

NA = Not applicable

Table B.3 Sampling errors: Urban sample, Cambodia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	1.000	0.000	2627	2692	NA	0.000	1.000	1.000
No education	0.154	0.012	2627	2692	1.699	0.078	0.130	0.178
Secondary education or higher	0.389	0.023	2627	2692	2.385	0.058	0.344	0.434
Never married (in union)	0.381	0.012	2627	2692	1.276	0.032	0.357	0.405
Currently married (in union)	0.525	0.011	2627	2692	1.167	0.022	0.502	0.548
Married before age 20	0.425	0.015	1933	1938	1.353	0.036	0.395	0.456
Had first sexual intercourse before 18	0.240	0.011	1933	1938	1.162	0.047	0.217	0.262
Children ever born	2.013	0.059	2627	2692	1.248	0.029	1.895	2.131
Children ever born to women over 40	4.450	0.131	527	539	1.093	0.029	4.188	4.712
Children surviving	1.772	0.050	2627	2692	1.207	0.028	1.673	1.872
Know any contraceptive method	0.979	0.004	1476	1413	0.988	0.004	0.972	0.986
Know any modern contraceptive method	0.978	0.004	1476	1413	1.027	0.004	0.971	0.986
Ever used any contraceptive method	0.495	0.018	1476	1413	1.384	0.036	0.459	0.531
Currently using any method	0.327	0.016	1476	1413	1.339	0.050	0.294	0.360
Currently using a modern method	0.236	0.015	1476	1413	1.366	0.064	0.206	0.266
Currently using pill	0.062	0.010	1476	1413	1.525	0.155	0.043	0.081
Currently using IUD	0.031	0.004	1476	1413	0.856	0.125	0.023	0.038
Currently using injectables	0.053	0.008	1476	1413	1.371	0.151	0.037	0.069
Currently using norplant	0.001	0.001	1476	1413	1.058	0.716	0.000	0.004
Currently using condom	0.020	0.005	1476	1413	1.469	0.270	0.009	0.030
Currently using female sterilization	0.032	0.006	1476	1413	1.307	0.186	0.020	0.044
Currently using male sterilization	0.003	0.002	1476	1413	1.126	0.526	0.000	0.006
Currently using periodic abstinence	0.073	0.008	1476	1413	1.207	0.112	0.057	0.089
Currently using withdrawal	0.017	0.004	1476	1413	1.160	0.230	0.009	0.025
Using public-sector source	0.374	0.033	342	350	1.267	0.089	0.308	0.441
Want no more children	0.314	0.015	1476	1413	1.215	0.047	0.284	0.343
Want to delay at least 2 years	0.143	0.010	1476	1413	1.068	0.068	0.124	0.163
Ideal number of children	3.287	0.032	2467	2525	1.264	0.010	3.224	3.350
Mothers received medical care at birth	0.572	0.040	1223	1076	2.097	0.069	0.493	0.651
Had diarrhea in the last 2 weeks	0.158	0.015	1109	979	1.191	0.093	0.128	0.187
Treated with ORS packets	0.249	0.043	194	154	1.140	0.172	0.163	0.334
Consulted medical personnel	0.318	0.043	194	154	1.064	0.135	0.232	0.404
Having health card, seen	0.489	0.046	180	156	1.115	0.093	0.398	0.581
Received BCG vaccination	0.754	0.036	180	156	1.004	0.048	0.682	0.827
Received DPT vaccination (3 doses)	0.535	0.041	180	156	1.013	0.077	0.453	0.618
Received polio vaccination (3 doses)	0.549	0.040	180	156	0.973	0.072	0.470	0.629
Received measles vaccination	0.610	0.046	180	156	1.135	0.075	0.519	0.701
Fully immunized	0.463	0.039	180	156	0.964	0.085	0.385	0.542
Weight-for-height (< -2 SD)	0.126	0.019	517	484	1.260	0.152	0.088	0.165
Height-for-age (< -2 SD)	0.381	0.029	517	484	1.280	0.076	0.323	0.439
Weight-for-age (< -2 SD)	0.379	0.028	517	484	1.235	0.073	0.323	0.434
Total fertility rate (5 years)	3.064	0.198	NA	11480	1.938	0.065	2.668	3.460
Neonatal mortality rate (10 years)	26.997	3.647	2807	2479	1.192	0.135	19.703	34.291
Postneonatal mortality rate (10 years)	45.342	6.289	2775	2373	1.592	0.139	32.764	57.920
Infant mortality rate (10 years)	72.339	8.323	2775	2373	1.693	0.115	55.692	88.985
Child mortality rate (10 years)	21.819	3.366	3068	2373	1.276	0.154	15.088	28.551
Under-five mortality rate (10 years)	92.580	9.575	2775	2373	1.740	0.103	73.430	111.729

NA = Not applicable

Table B.4 Sampling errors: Rural sample, Cambodia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.000	0.000	12724	12659	NA	NA	0.000	0.000
No education	0.310	0.010	12724	12659	2.492	0.033	0.289	0.330
Secondary education or higher	0.126	0.007	12724	12659	2.425	0.057	0.111	0.140
Never married (in union)	0.305	0.005	12724	12659	1.206	0.016	0.295	0.315
Currently married (in union)	0.605	0.005	12724	12659	1.209	0.009	0.594	0.615
Married before age 20	0.502	0.007	9854	9795	1.351	0.014	0.488	0.516
Had first sexual intercourse before 18	0.286	0.006	9854	9795	1.311	0.021	0.275	0.298
Children ever born	2.707	0.031	12724	12659	1.223	0.011	2.645	2.768
Children ever born to women over 40	5.542	0.089	2718	2733	1.572	0.016	5.364	5.720
Children surviving	2.302	0.026	12724	12659	1.195	0.011	2.251	2.353
Know any contraceptive method	0.951	0.004	7856	7658	1.513	0.004	0.943	0.958
Know any modern contraceptive method	0.948	0.004	7856	7658	1.469	0.004	0.941	0.956
Ever used any contraceptive method	0.352	0.008	7856	7658	1.552	0.024	0.335	0.369
Currently using any method	0.222	0.007	7856	7658	1.566	0.033	0.207	0.236
Currently using a modern method	0.179	0.006	7856	7658	1.488	0.036	0.166	0.191
Currently using pill	0.042	0.003	7856	7658	1.458	0.079	0.035	0.048
Currently using IUD	0.009	0.002	7856	7658	1.533	0.178	0.006	0.013
Currently using injectables	0.077	0.005	7856	7658	1.581	0.062	0.068	0.087
Currently using norplant	0.001	0.000	7856	7658	1.239	0.511	0.000	0.002
Currently using condom	0.007	0.001	7856	7658	1.239	0.166	0.005	0.009
Currently using female sterilization	0.012	0.002	7856	7658	1.247	0.130	0.009	0.015
Currently using male sterilization	0.001	0.001	7856	7658	1.414	0.448	0.000	0.002
Currently using periodic abstinence	0.019	0.002	7856	7658	1.293	0.106	0.015	0.023
Currently using withdrawal	0.024	0.002	7856	7658	1.396	0.101	0.019	0.028
Using public-sector source	0.467	0.016	1335	1370	1.205	0.035	0.434	0.500
Want no more children	0.359	0.008	7856	7658	1.397	0.021	0.344	0.374
Want to delay at least 2 years	0.132	0.005	7856	7658	1.230	0.036	0.123	0.142
Ideal number of children	3.663	0.022	11979	11735	1.634	0.006	3.620	3.706
Mothers received medical care at birth	0.280	0.014	7611	7098	2.118	0.049	0.253	0.307
Had diarrhea in the last 2 weeks	0.194	0.007	6758	6348	1.286	0.035	0.180	0.207
Treated with ORS packets	0.170	0.013	1397	1231	1.159	0.079	0.143	0.196
Consulted medical personnel	0.203	0.016	1397	1231	1.348	0.080	0.171	0.236
Having health card, seen	0.473	0.020	1149	1096	1.346	0.043	0.433	0.514
Received BCG vaccination	0.708	0.018	1149	1096	1.280	0.025	0.673	0.743
Received DPT vaccination (3 doses)	0.478	0.020	1149	1096	1.336	0.042	0.437	0.518
Received polio vaccination (3 doses)	0.510	0.019	1149	1096	1.246	0.037	0.472	0.547
Received measles vaccination	0.546	0.018	1149	1096	1.206	0.033	0.509	0.582
Fully immunized	0.390	0.019	1149	1096	1.309	0.050	0.351	0.428
Weight-for-height (< -2 SD)	0.154	0.008	3079	2888	1.120	0.050	0.139	0.170
Height-for-age (< -2 SD)	0.457	0.013	3079	2888	1.317	0.028	0.431	0.482
Weight-for-age (< -2 SD)	0.465	0.011	3079	2888	1.194	0.025	0.442	0.488
Total fertility rate (5 years)	4.173	0.081	NA	55638	1.655	0.020	4.010	4.336
Neonatal mortality rate (10 years)	40.924	1.995	17850	16587	1.345	0.049	36.934	44.914
Postneonatal mortality rate (10 years)	54.794	2.921	17217	15406	1.684	0.053	48.953	60.635
Infant mortality rate (10 years)	95.718	3.438	17217	15406	1.534	0.036	88.841	102.595
Child mortality rate (10 years)	33.519	1.833	18678	15217	1.392	0.055	29.853	37.185
Under-five mortality rate (10 years)	126.029	3.836	17217	15217	1.517	0.030	118.357	133.701

NA = Not applicable

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Cambodia 2000

Age	Males		Females		Age	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	825	2.7	779	2.3	36	349	1.1	412	1.2
1	601	2.0	580	1.7	37	408	1.3	457	1.4
2	672	2.2	657	2.0	38	374	1.2	448	1.3
3	768	2.5	797	2.4	39	289	0.9	356	1.1
4	878	2.9	813	2.4	40	347	1.1	485	1.4
5	792	2.6	759	2.3	41	236	0.8	353	1.1
6	1,225	4.0	1,253	3.7	42	271	0.9	404	1.2
7	1,102	3.6	1,098	3.3	43	208	0.7	369	1.1
8	1,040	3.4	1,033	3.1	44	192	0.6	303	0.9
9	975	3.2	930	2.8	45	213	0.7	358	1.1
10	1,152	3.7	1,135	3.4	46	187	0.6	291	0.9
11	945	3.1	898	2.7	47	212	0.7	321	1.0
12	984	3.2	980	2.9	48	221	0.7	274	0.8
13	945	3.1	1,055	3.1	49	183	0.6	244	0.7
14	844	2.7	933	2.8	50	213	0.7	191	0.6
15	821	2.7	722	2.2	51	137	0.4	243	0.7
16	835	2.7	795	2.4	52	204	0.7	244	0.7
17	784	2.5	747	2.2	53	145	0.5	236	0.7
18	852	2.8	733	2.2	54	117	0.4	188	0.6
19	738	2.4	652	1.9	55	180	0.6	244	0.7
20	645	2.1	697	2.1	56	117	0.4	164	0.5
21	423	1.4	444	1.3	57	110	0.4	177	0.5
22	359	1.2	315	0.9	58	146	0.5	167	0.5
23	326	1.1	304	0.9	59	106	0.3	121	0.4
24	291	0.9	356	1.1	60	149	0.5	214	0.6
25	380	1.2	399	1.2	61	106	0.3	148	0.4
26	330	1.1	399	1.2	62	92	0.3	139	0.4
27	373	1.2	468	1.4	63	113	0.4	142	0.4
28	408	1.3	431	1.3	64	77	0.3	107	0.3
29	363	1.2	434	1.3	65	115	0.4	164	0.5
30	476	1.5	500	1.5	66	83	0.3	100	0.3
31	398	1.3	456	1.4	67	98	0.3	136	0.4
32	383	1.2	444	1.3	68	85	0.3	93	0.3
33	390	1.3	447	1.3	69	63	0.2	90	0.3
34	341	1.1	403	1.2	70+	560	1.8	759	2.3
35	406	1.3	514	1.5					
					Total	30,772	100.0	33,502	100.0

Table C.2 Age distribution of eligible and interviewed women

Percent distribution of the de facto household population of women age 10-54, and of interviewed women age 15-49, and the percentage of eligible women who were interviewed (weighted) by five-year age groups, Cambodia 2000

Age group	Household population of women		Women interviewed		Percent interviewed (weighted)
	Number	Percent	Number	Percent	
10-14	5,001	-	-	-	-
15-19	3,649	23.2	3,558	22.9	97.5
20-24	2,116	13.4	2,085	13.4	98.6
25-29	2,131	13.5	2,099	13.5	98.5
30-34	2,249	14.3	2,227	14.4	99.0
35-39	2,187	13.9	2,166	14.0	99.0
40-44	1,914	12.2	1,899	12.2	99.2
45-49	1,489	9.5	1,478	9.5	99.3
50-54	1,102	-	-	-	-
15-49	15,736	-	15,512	-	98.6

Note: The de facto population includes all residents and nonresidents who slept in the household the night before interview.

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Cambodia 2000

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Births in the past 15 years		
Month only		0.5	27,952
Month and year		0.1	27,952
Age at death	Deaths to births in last 15 years	0.5	3,392
Age/date at first union ¹	Ever-married women age 15-49	0.8	10,467
Respondent's education	All women age 15-49	0.6	15,351
Child's size at birth	Births in last 59 months	7.6	1,419
Anthropometry²	Living children age 0-59 months		
Height missing		3.5	3,767
Weight missing		3.2	3,767
Height or weight missing		3.6	3,767
Diarrhea in last 2 weeks	Living children age 0-59 months	0.6	7,327
Child's hemoglobin level	Living children age 6-59 months	9.3	1,616
Woman's hemoglobin level	All women age 15-49	2.9	3,741

¹ Both year and age missing

² Child not measured

Table C.4 Births by calendar years

Distribution of births by calendar years for living (L), dead (D), and total (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Cambodia 2000

Calendar year	Number of births			Percentage with complete birth date ¹			Sex ratio at birth ²			Calendar ratio ³		
	L	D	T	L	D	T	L	D	T	L	D	T
2000	587	44	631	99.8	100.0	99.8	95.6	169.6	99.4	NA	NA	NA
1999	1,492	141	1,634	99.8	98.9	99.8	113.1	118.5	113.5	156.5	168.0	157.4
1998	1,320	125	1,445	99.9	99.4	99.9	95.4	152.4	99.2	89.1	72.8	87.4
1997	1,470	201	1,671	100.0	99.2	99.9	99.0	123.2	101.6	102.7	121.7	104.7
1996	1,541	206	1,747	100.0	98.0	99.8	98.9	123.7	101.5	106.5	101.8	106.0
1995	1,424	204	1,627	99.9	98.9	99.7	109.0	115.5	109.8	76.6	72.8	76.1
1994	2,176	354	2,529	99.9	98.7	99.7	103.7	131.0	107.1	127.1	141.9	129.0
1993	2,001	295	2,295	99.8	97.3	99.5	99.4	110.0	100.7	98.6	96.3	98.3
1992	1,881	259	2,140	99.8	98.7	99.7	98.7	146.9	103.5	100.0	94.2	99.3
1991	1,760	254	2,014	99.6	95.5	99.1	94.1	133.8	98.4	NA	NA	NA
1996-2000	6,411	716	7,127	99.9	98.9	99.8	101.0	129.4	103.5	NA	NA	NA
1991-1995	9,241	1,365	10,606	99.8	97.8	99.5	100.6	126.9	103.7	NA	NA	NA
1986-1990	8,203	1,211	9,414	99.6	97.9	99.3	100.4	116.2	102.3	NA	NA	NA
1981-1985	6,125	1,098	7,223	99.6	98.0	99.3	105.2	111.6	106.1	NA	NA	NA
<1981	3,934	1,376	5,310	99.6	96.9	98.9	110.1	119.0	112.3	NA	NA	NA
All	33,914	5,767	39,681	99.7	97.8	99.4	102.5	120.0	104.9	NA	NA	NA

NA = Not applicable

¹ Both year and month of birth given

² $(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

³ $[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x 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 age 0-6 days, for five-year periods preceding the survey, Cambodia 2000

Age at death (in days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	54	72	72	55	253
1	59	88	86	60	293
2	36	38	26	27	126
3	36	48	42	30	157
4	11	10	3	5	29
5	9	17	16	11	53
6	8	8	2	7	24
7	32	71	67	76	246
8	10	5	8	13	37
9	2	6	8	9	25
10	4	6	10	10	30
11	2	1	0	1	5
12	1	5	4	6	15
13	1	0	1	2	3
14	1	2	2	0	6
15	17	20	23	21	81
16	0	0	3	0	3
17	2	2	2	1	7
18	2	2	1	0	5
19	0	0	2	0	2
20	7	12	10	2	31
21	0	0	1	0	1
23	0	0	1	0	1
24	1	0	0	0	1
25	1	6	4	1	12
26	0	1	0	0	1
27	2	1	2	0	5
28	2	3	0	1	6
29	2	0	0	0	2
30	2	5	1	3	11
31+	4	3	1	0	8
Percent early neonatal ¹	70.0	65.4	62.3	56.9	63.5
Total 0-30	303	428	399	341	1,472

¹ (0-6 days/0-30 days) * 100

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 ages under one month, for five-year periods preceding the survey, Cambodia 2000

Age at death (in months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 ^a	303	429	401	344	1,477
1	99	105	71	49	323
2	93	99	37	33	261
3	70	95	46	47	257
4	40	38	22	9	109
5	25	43	17	24	108
6	25	31	14	9	80
7	25	45	27	28	126
8	20	42	42	20	125
9	12	30	16	14	72
10	9	19	12	17	57
11	4	8	7	7	25
12	11	17	22	30	80
13	1	5	10	2	18
14	3	5	4	9	21
15	2	3	6	3	14
16	2	3	2	4	12
17	2	3	1	0	6
18	6	5	8	8	28
19	1	6	0	1	8
20	2	1	3	7	14
21	0	0	0	3	3
22	2	0	1	1	4
23	1	0	1	0	3
24+	1	4	6	2	14
1 year	19	49	43	53	164
Percent neonatal ¹	41.9	43.6	56.4	57.2	48.9
Total 0-11	725	982	711	602	3,019

^a Includes deaths under 1 month reported in days
¹ (Under 1 month/under 1 year) * 100

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**CAMBODIAN DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE**

NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH

IDENTIFICATION							
PROVINCE _____	PROVINCE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>						
DISTRICT _____	DISTRICT <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>						
COMMUNE _____	COMMUNE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>						
VILLAGE _____	VILLAGE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>						
NAME OF HOUSEHOLD HEAD _____							
CLUSTER NUMBER	CLUSTER <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>						
HOUSEHOLD NUMBER	HOUSEHOLD <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>						
URBAN/RURAL (URBAN=1, RURAL=2).....	URBAN/RURAL <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>						
PHNOM PENH =1, SIHANOUKVILLE-BAT DAMBANG-SIEM REAB=2, OTHER URBAN =3, RURAL =4.....	RESIDENCE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>						

COLLECTION OF HEIGHT AND WEIGHT DATA (YES =1, NO =2)	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr><tr><td> </td></tr></table>			
ANEMIA TESTING / WOMEN'S STATUS / HOUSEHOLD RELATIONS (YES =1, NO =2)				
IF "YES" (1) FOR HOUSEHOLD RELATIONS, RECORD THE RANDOM NUMBER.....				

INTERVIEWER VISITS																				
	1	2	3	FINAL VISIT																
DATE	_____	_____	_____	DAY <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTH <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>0</td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>									2	0						
2	0																			
INTERVIEWER'S NAME	_____	_____	_____	NAME <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>																
RESULT*	_____	_____	_____	RESULT <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>																
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table>																
TIME	_____	_____																		
*RESULT CODES: 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT 3 ENTIRE HOUSEHOLD TEMPORARILY ABSENT 4 ENTIRE HOUSEHOLD NO LONGER EXIST, MOVED OUT PERMANENTLY 5 POSTPONED 6 REFUSED 7 OTHER _____ (SPECIFY)			TOTAL PERSONS IN HOUSEHOLD <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>			TOTAL ELIGIBLE WOMEN <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>														
			LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>																	
SUPERVISOR		FIELD EDITOR		OFF. EDITOR	KEYED BY															
NAME _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>					NAME _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>					<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>			<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>							
DATE _____		DATE _____		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>			<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>													

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX		RESIDENCE		AGE	IF WOMAN IS 15-49 YEARS OLD		ELIGIBILITY	
			Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	Has (NAME) ever been married?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN UNDER AGE 6		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7A)	(8)	(9)		
			M F	YES NO	YES NO	IN YEARS	YES NO				
01		□ □	1 2	1 2	1 2	□ □	1 2	01 01			
02		□ □	1 2	1 2	1 2	□ □	1 2	02 02			
03		□ □	1 2	1 2	1 2	□ □	1 2	03 03			
04		□ □	1 2	1 2	1 2	□ □	1 2	04 04			
05		□ □	1 2	1 2	1 2	□ □	1 2	05 05			
06		□ □	1 2	1 2	1 2	□ □	1 2	06 06			
07		□ □	1 2	1 2	1 2	□ □	1 2	07 07			
08		□ □	1 2	1 2	1 2	□ □	1 2	08 08			
09		□ □	1 2	1 2	1 2	□ □	1 2	09 09			
10		□ □	1 2	1 2	1 2	□ □	1 2	10 10			

* CODES FOR Q.3

RELATIONSHIP TO HEAD OF HOUSEHOLD:

- 01 = HEAD
- 02 = WIFE OR HUSBAND
- 03 = SON OR DAUGHTER
- 04 = SON-OR DAUGHTER IN-LAW
- 05 = GRANDCHILD
- 06 = PARENT

- 07 = PARENT-IN-LAW
- 08 = BROTHER OR SISTER
- 10 = OTHER RELATIVE
- 11 = ADOPTED/FOSTER/STEPCHILD
- 12 = NOT RELATED/ FRIEND/ACQUAINTANCE
- 98 = DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION (IF AGE 5 YEARS OR OLDER)									
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest grade (NAME) completed at that level?***	IF AGE 5-24 YEARS					Starting from primary school and including this year, in total how many years has (NAME) attended school?		
Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER		Is (NAME) currently attending school?			During the current school year, did (NAME) attend school at any time?	During the current school year, what level and grade [is/was] (NAME) attending?***	During the previous school year, did (NAME) attend school at any time?	During that school year, what level and grade did (NAME) attend?***				
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(20A)		
	YES NO DK		YES NO DK		YES NO	LEVEL GRADE	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	YEARS		
01	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
02	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
03	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
04	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
05	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
06	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
07	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
08	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
09	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		
10	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↙ ↘ LINE	<input type="text"/> <input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↙ 19	<input type="text"/> <input type="text"/>	1 2 GO ↙ TO 20A	<input type="text"/> <input type="text"/>	<input type="text"/>		

** Q.10 THROUGH Q.13

*** CODES FOR Qs 15, 18 AND 20

THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.

IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE

LEVEL	PRE-PRIMARY = 0	PRIMARY= 1	LOWER SECONDARY= 2	UPPER SECONDARY= 3	HIGHER= 4	DON'T KNOW = 8
GRADE	00 = ANY GRADE	01= GRADE 1 02= GRADE 2 03= GRADE 3 04= GRADE 4 05= GRADE 5 06= GRADE 6	00= LESS THAN 1 YEAR COMPLETED 07= GRADE 7 08= GRADE 8 09= GRADE 9	10= GRADE 10 11= GRADE 11 12= GRADE 12	01= YEAR 1 02= YEAR 2 03= YEAR 3 04= YEAR 4 +	
			98= DON'T KNOW			

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX		RESIDENCE				AGE	IF WOMAN IS 15-49 YEARS OLD	ELIGIBILITY	
			Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	Has (NAME) ever been married?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN UNDER AGE 6			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7A)	(8)	(9)			
			M F	YES NO	YES NO	IN YEARS	YES NO					
11		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	11	11			
12		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	12	12			
13		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	13	13			
14		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	14	14			
15		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	15	15			
16		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	16	16			
17		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	17	17			
18		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	18	18			
19		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	19	19			
20		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2	20	20			

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:

01 = HEAD
02 = WIFE OR HUSBAND
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05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER

10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

** Q.10 THROUGH Q.13

*** CODES FOR Qs 15, 18 AND 20

THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.

IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE

LEVEL	PRE-PRIMARY = 0	PRIMARY = 1	LOWER SECONDARY = 2	UPPER SECONDARY = 3	HIGHER = 4	DON'T KNOW = 8
GRADE	00 = ANY GRADE	01 = GRADE 1 02 = GRADE 2 03 = GRADE 3 04 = GRADE 4 05 = GRADE 5 06 = GRADE 6	00 = LESS THAN 1 YEAR COMPLETED 07 = GRADE 7 08 = GRADE 8 09 = GRADE 9	10 = GRADE 10 11 = GRADE 11 12 = GRADE 12	01 = YEAR 1 02 = YEAR 2 03 = YEAR 3 04 = YEAR 4 +	
				98 = DON'T KNOW		

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION (IF AGE 5 YEARS OR OLDER)									
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest grade (NAME) completed at that level?***	IF AGE 5-24 YEARS						Starting from primary school and including this year, in total how many years has (NAME) attended school?	
		Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER			Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what level and grade [is/was] (NAME) attending?****	During the previous school year, did (NAME) attend school at any time?	During that school year, what level and grade did (NAME) attend?****			
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(20A)			
YES NO DK		YES NO DK		YES NO	LEVEL GRADE	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	YEARS			
11	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
12	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
13	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
14	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
15	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
16	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
17	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
18	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
19	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		
20	1 2 8	<input type="text"/>	1 2 8	<input type="text"/>	1 2 NEXT ↵ LINE	<input type="text"/>	1 2 ↳ GO TO 18	1 2 GO TO*↵ 19	<input type="text"/>	1 2 GO ↵ TO 20A	<input type="text"/>	<input type="text"/>		

TICK HERE IF CONTINUATION SHEET USED

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ENTER EACH IN TABLE NO

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ENTER EACH IN TABLE NO

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES ENTER EACH IN TABLE NO

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
20B	Was any person of your household injured or killed in an accident in the past 12 months?	YES 1 NO 2	→20H
20C	What is the name of the persons injured or killed? (IF THERE ARE MORE THAN TWO PEOPLE INJURED OR KILLED, USE ADDITIONAL QUESTIONNAIRE).	20D Could you tell me in what type of accident was (NAME) injured or killed?	20E Is (NAME) still alive? 20F IF ALIVE, RECORD THE LINE NUMBER FROM Q. 1 20G IF DEAD: Was (NAME)'s death due to the accident?
	1 _____	LANDMINE/UNEXPLODED BOMB (UXO) . 01 GUN SHOT/WEAPON02 ROAD ACCIDENT03 SEVERE BURNING04 SNAKE/ANIMAL BITE05 FALL FROM TREE/BUILDING07 DROWNING08 POISONING (CHEMICAL)09 OTHER96 DON'T KNOW 98	YES 1 NO 2 GO TO 20G ←┘ <input type="checkbox"/> <input type="checkbox"/> ↓ GO TO NEXT LINE OR Q.20H YES 1 NO 2
	2 _____	LANDMINE/UNEXPLODED BOMB (UXO) . 01 GUN SHOT/WEAPON02 ROAD ACCIDENT03 SEVERE BURNING04 SNAKE/ANIMAL BITE05 FALL FROM TREE/BUILDING07 DROWNING08 POISONING (CHEMICAL)09 OTHER96 DON'T KNOW 98	YES 1 NO 2 GO TO 20G ←┘ <input type="checkbox"/> <input type="checkbox"/> ↓ GO TO NEXT LINE OR Q.20H YES 1 NO 2
20H	Is there any person who usually lives in your household who has any type of physical impairment?	YES 1 NO 2	→20K
20I	Please give the name of each individual who has a physical impairment WRITE NAME OF THE PERSON AND RECORD LINE NUMBER FROM Q.1 IN THE BOXES. (IF MORE THAN TWO PEOPLE WITH PHYSICAL IMPAIRMENTS, USE ADDITIONAL QUESTIONNAIRE).	20J Has (NAME) been physically impaired since birth, or was (NAME)'s impairment due to an illness or an accident? IF ACCIDENT, PROBE: What type of accident?	
	1 _____ <input type="checkbox"/> <input type="checkbox"/> →	FROM BIRTH 1 FROM ILLNESS 2 FROM LANDMINE/UNEXPLODED BOMB 3 FROM GUN SHOT/WEAPON 4 FROM TRANSPORTATION ACCIDENT 5 FROM FIRE/BURNING 6 FROM SNAKE/ANIMAL BITE 7 OTHER ACCIDENT 8	
	2 _____ <input type="checkbox"/> <input type="checkbox"/> →	FROM BIRTH 1 FROM ILLNESS 2 FROM LANDMINE/UNEXPLODED BOMB 3 FROM GUN SHOT/WEAPON 4 FROM TRANSPORTATION ACCIDENT 5 FROM FIRE/BURNING 6 FROM SNAKE/ANIMAL BITE 7 OTHER ACCIDENT 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
20K	Please tell me if any member of your household is sick, has an illness or an injury now or at any time in the last 30 days?	YES1 NO2			→21
20L	Now I would like to ask you some questions about each person who is sick/injured now or at any time in the last 30 days. Could you tell me his/her/their name(s)? Then we will talk about one person at a time. ENTER THE NAME AND LINE NUMBER OF EACH PERSON SICK/INJURED. ASK ALL QUESTIONS ABOUT ALL OF THESE PEOPLE. (IF THERE ARE MORE THAN 3 PEOPLE, USE ADDITIONAL QUESTIONNAIRE).				
20M	NAME AND LINE NUMBER FROM Q.1 AND Q.2	NAME _____ LINE NUMBER <input type="text"/> <input type="text"/>	NAME _____ LINE NUMBER <input type="text"/> <input type="text"/>	NAME _____ LINE NUMBER <input type="text"/> <input type="text"/>	
20N	In your opinion, was (NAME)'s illness/injury serious, moderate, or slight?	SERIOUS 1 MODERATE 2 SLIGHT 3 DON'T KNOW 8	SERIOUS 1 MODERATE 2 SLIGHT 3 DON'T KNOW 8	SERIOUS 1 MODERATE 2 SLIGHT 3 DON'T KNOW 8	
20O	Was advice or treatment sought for (NAME)'s illness/injury?	YES 1 NO 2 (SKIP TO NEXT ← COLUMN OR TO Q.21)	YES 1 NO 2 (SKIP TO NEXT ← COLUMN OR TO Q.21)	YES 1 NO 2 (SKIP TO NEXT ← COLUMN OR TO Q.21)	
20P	Where was advice or treatment first sought for (NAME)'s illness/injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/NURSE", PROBE: Did the health worker/nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE	PUBLIC SECTOR CENTRAL HOSP. (P.P.) .. 11 PROVINCIAL HOSPITAL. 12 DISTRICT HOSPITAL 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17 PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE ... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE 24 OTHER PRIV. MED. 26 NOT MEDICAL SECTOR DEDICATED DRUG STORE 31 SHOP SELLING DRUGS/MARKET 32 KRU KHMER/MAGICIAN .33 MONK/RELIG. LEADER...34 TRADITIONAL BIRTH ATTENDANT 35 OTHER 96	PUBLIC SECTOR CENTRAL HOSP. (P.P.).. 11 PROVINCIAL HOSPITAL. 12 DISTRICT HOSPITAL 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17 PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE ... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE 24 OTHER PRIV. MED. 26 NOT MEDICAL SECTOR DEDICATED DRUG STORE 31 SHOP SELLING DRUGS/MARKET 32 KRU KHMER/MAGICIAN .33 MONK/RELIG. LEADER .. 34 TRADITIONAL BIRTH ATTENDANT 35 OTHER 96	PUBLIC SECTOR CENTRAL HOSP. (P.P.)...11 PROVINCIAL HOSPITAL. 12 DISTRICT HOSPITAL 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17 PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE ... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE 24 OTHER PRIV. MED. 26 NOT MEDICAL SECTOR DEDICATED DRUG STORE 31 SHOP SELLING DRUGS/MARKET 32 KRU KHMER/MAGICIAN .33 MONK/RELIG. LEADER .. 34 TRADITIONAL BIRTH ATTENDANT 35 OTHER 96	
20Q	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.20P)? RECORD IN RIELS OR IN DOLLARS.	RIELS 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DOLLARS 2 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE/NO COST 000000 IN KIND 9999996 DON'T KNOW 9999998	RIELS 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DOLLARS 2 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE/NO COST 000000 IN KIND 9999996 DON'T KNOW 9999998	RIELS 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DOLLARS 2 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE/NO COST 000000 IN KIND 9999996 DON'T KNOW 9999998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
20R	<p>How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.20P)?</p> <p>IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS</p>	<p>RIELS..... 1</p> <p><input type="text"/></p> <p>DOLLARS 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW..... 9999998</p>	<p>RIELS 1</p> <p><input type="text"/></p> <p>DOLLARS 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW 9999998</p>	<p>RIELS1</p> <p><input type="text"/></p> <p>DOLLARS.....2</p> <p><input type="text"/></p> <p>FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998</p>
20S	<p>After the first visit to (NAME OF PLACE FROM Q.20P), was there a second visit to this place or was advice or treatment sought anywhere else for (NAME)'s illness/injury?</p>	<p>YES 1</p> <p>NO.....2 (SKIP TO NEXT ← COLUMN OR TO Q.20YB)</p>	<p>YES 1</p> <p>NO..... 2 (SKIP TO NEXT ← COLUMN OR TO Q.20YB)</p>	<p>YES.....1</p> <p>NO2 (SKIP TO NEXT ← COLUMN OR TO Q.20YB)</p>
20T	<p>For the second visit, where was advice or treatment sought for (NAME)'s illness/injury?</p> <p>IF "HOSPITAL", PROBE:</p> <p>Do you mean a permanent building where health workers are present every day?</p> <p>IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital?</p> <p>IF "HEALTH WORKER/NURSE", PROBE:</p> <p>Did the health worker/nurse visit you or did you go to his/her office/home?</p> <p>CIRCLE THE APPROPRIATE CODE</p>	<p>PUBLIC SECTOR CENTRAL HOSP. (P.P.).. 11 PROVINCIAL HOSPITAL. 12 DISTRICT HOSPITAL..... 13 HEALTH CENTER..... 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17</p> <p>PRIVATE MEDICAL PRIV. HOSPITAL.....21 PRIVATE CLINIC.....22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE.... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE..... 24 OTHER PRIV. MED. 26</p> <p>NOT MEDICAL SECTOR DEDICATED DRUG STORE..... 31 SHOP SELLING DRUGS/MARKET..... 32 KRU KHMER/MAGICIAN. 33 MONK/RELIG. LEADER.. 34 TRADITIONAL BIRTH ATTENDANT 35</p> <p>OTHER 96</p>	<p>PUBLIC SECTOR CENTRAL HOSP. (P.P.).. 11 PROVINCIAL HOSPITAL. 12 DISTRICT HOSPITAL..... 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17</p> <p>PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE.... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE..... 24 OTHER PRIV. MED. 26</p> <p>NOT MEDICAL SECTOR DEDICATED DRUG STORE..... 31 SHOP SELLING DRUGS/MARKET..... 32 KRU KHMER/MAGICIAN. 33 MONK/RELIG. LEADER.. 34 TRADITIONAL BIRTH ATTENDANT 35</p> <p>OTHER 96</p>	<p>PUBLIC SECTOR CENTRAL HOSP. (P.P.)...11 PROVINCIAL HOSPITAL. 12 DISTRICT HOSPITAL..... 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER..... 16 OTHER PUBLIC..... 17</p> <p>PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE 23 VISIT OF TRAIN. HEALTH WORKER/NURSE..... 24 OTHER PRIV. MED. 26</p> <p>NOT MEDICAL SECTOR DEDICATED DRUG STORE31 SHOP SELLING DRUGS/MARKET32 KRU KHMER/MAGICIAN. 33 MONK/RELIG. LEADER.. 34 TRADITIONAL BIRTH ATTENDANT 35</p> <p>OTHER96</p>
20U	<p>How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.20T)?</p> <p>RECORD IN RIELS OR IN DOLLARS;</p>	<p>RIELS..... 1</p> <p><input type="text"/></p> <p>DOLLARS 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW..... 9999998</p>	<p>RIELS 1</p> <p><input type="text"/></p> <p>DOLLARS 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW 9999998</p>	<p>RIELS1</p> <p><input type="text"/></p> <p>DOLLARS.....2</p> <p><input type="text"/></p> <p>FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998</p>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
20V	<p>How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.20T)?</p> <p>IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS</p>	<p>RIELS..... 1</p> <p><input type="text"/></p> <p>DOLLARS 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW..... 9999998</p>	<p>RIELS 1</p> <p><input type="text"/></p> <p>DOLLARS..... 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW 9999998</p>	<p>RIELS 1</p> <p><input type="text"/></p> <p>DOLLARS..... 2</p> <p><input type="text"/></p> <p>FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998</p>
20W	<p>After the second visit to (NAME OF PLACE FROM Q.20T), was there a second visit to this place or was advice or treatment sought anywhere else for (NAME)'s illness/injury?</p>	<p>YES 1</p> <p>NO..... 2 (SKIP TO NEXT ←) COLUMN OR TO Q.20YB)</p>	<p>YES 1</p> <p>NO..... 2 (SKIP TO NEXT ←) COLUMN OR TO Q.20YB)</p>	<p>YES..... 1</p> <p>NO 2 (SKIP TO NEXT ←) COLUMN OR TO Q.20YB)</p>
20X	<p>For the third visit, where was advice or treatment sought for (NAME)'s illness/injury?</p> <p>IF "HOSPITAL", PROBE:</p> <p>Do you mean a permanent building where health workers are present every day?</p> <p>IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital?</p> <p>IF "HEALTH WORKER/NURSE", PROBE:</p> <p>Did the health worker/nurse visit you or did you go to his/her office/home?</p> <p>CIRCLE THE APPROPRIATE CODE</p>	<p>PUBLIC SECTOR CENTRAL HOSP. (P.P.).. 11 PROVINCIAL HOSPITAL.. 12 DISTRICT HOSPITAL..... 13 HEALTH CENTER..... 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17</p> <p>PRIVATE MEDICAL PRIV. HOSPITAL..... 21 PRIVATE CLINIC..... 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE..... 24 OTHER PRIV. MED. 26</p> <p>NOT MEDICAL SECTOR DEDICATED DRUG STORE..... 31 SHOP SELLING DRUGS/MARKET..... 32 KRU KHMER/MAGICIAN.. 33 MONK/RELIG. LEADER.. 34 TRADITIONAL BIRTH ATTENDANT 35</p> <p>OTHER 96</p>	<p>PUBLIC SECTOR CENTRAL HOSP. (P.P.).. 11 PROVINCIAL HOSPITAL.. 12 DISTRICT HOSPITAL..... 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC 17</p> <p>PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE..... 24 OTHER PRIV. MED. 26</p> <p>NOT MEDICAL SECTOR DEDICATED DRUG STORE..... 31 SHOP SELLING DRUGS/MARKET..... 32 KRU KHMER/MAGICIAN.. 33 MONK/RELIG. LEADER.. 34 TRADITIONAL BIRTH ATTENDANT 35</p> <p>OTHER 96</p>	<p>PUBLIC SECTOR CENTRAL HOSP. (P.P.)... 11 PROVINCIAL HOSPITAL.. 12 DISTRICT HOSPITAL..... 13 HEALTH CENTER 14 KHUM CLINIC 15 HEALTH WORKER 16 OTHER PUBLIC..... 17</p> <p>PRIVATE MEDICAL PRIV. HOSPITAL 21 PRIVATE CLINIC 22 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE ... 23 VISIT OF TRAIN. HEALTH WORKER/NURSE 24 OTHER PRIV. MED. 26</p> <p>NOT MEDICAL SECTOR DEDICATED DRUG STORE 31 SHOP SELLING DRUGS/MARKET 32 KRU KHMER/MAGICIAN.. 33 MONK/RELIG. LEADER.. 34 TRADITIONAL BIRTH ATTENDANT 35</p> <p>OTHER 96</p>
20Y	<p>How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.20X)?</p> <p>RECORD IN RIELS OR IN DOLLARS;</p>	<p>RIELS..... 1</p> <p><input type="text"/></p> <p>DOLLARS 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW..... 9999998</p>	<p>RIELS 1</p> <p><input type="text"/></p> <p>DOLLARS..... 2</p> <p><input type="text"/></p> <p>FREE/NO COST..... 0000000 IN KIND..... 9999996 DON'T KNOW 9999998</p>	<p>RIELS 1</p> <p><input type="text"/></p> <p>DOLLARS..... 2</p> <p><input type="text"/></p> <p>FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998</p>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
20YA	<p>How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.20X)?</p> <p>IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS</p>	RIELS 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DOLLARS 2 <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998	RIELS 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DOLLARS 2 <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998	RIELS 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DOLLARS 2 <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE/NO COST 0000000 IN KIND 9999996 DON'T KNOW 9999998
20YB	CHECK 20Q, R, U, V, Y, AND 20YA (ALL COLUMNS): MONEY WAS SPENT <input type="checkbox"/> NO EXPENSES IN CASH <input type="checkbox"/>			→ 21
20YC	Where did the money come from to pay for transportation and treatment for the (two/three) member(s) of your household who had an illness/injury over the past 30 days?	WAGES/POCKET MONEY 1 SAVINGS 2 BORROW FROM (NO INTEREST) 3 LOAN (WITH INTEREST) 4 SALE OF ASSETS 5 OTHER 6		
21	During the dry season, what is the main source of drinking water for members of your household?	PIPED WATER PIPED IN DWELLING/YARD/PLOT 11 → 22A PUBLIC TAP 12 FROM UNPROTECTED WELL OPEN WELL IN DWELLING/YARD 21 → 22A OPEN PUBLIC WELL 22 FROM COVERED WELL/BOREHOLE PROTECTED DUG WELL IN DWELLING/YARD/PLOT 31 → 22A PROTECTED PUBLIC DUG WELL 32 TUBED/PIPED WELL OR BORE HOLE IN DWELLING/ YARD 33 → 22A TUBED/PIPED PUBLIC WELL OR BOREHOLE 34 SURFACE WATER SPRING 41 RIVER/STREAM/ POND/LAKE/DAM .. 42 RAINWATER 51 → 22A TANKER TRUCK/WATER VENDOR 61 → 22A BOTTLED WATER 71 → 22A OTHER 96		
22	How long does it take you to go there, get water, and come back?	MINUTES <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES 996		
22A	During the wet season, is the main source of drinking water for members of your household the same as during the dry season?	YES 1 → 23 NO 2		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																								
22B	During the wet season, what is the main source of drinking water for members of your household?	PIPED WATER PIPED IN DWELLING/YARD/PLOT 11 → 23 PUBLIC TAP 12 FROM UNPROTECTED WELL OPEN WELL IN DWELLING/YARD 21 → 23 OPEN PUBLIC WELL 22 FROM COVERED WELL/BOREHOLE PROTECTED DUG WELL IN DWELLING/YARD/PLOT..... 31 → 23 PROTECTED PUBLIC DUG WELL 32 TUBED/PIPED WELL OR BORE HOLE IN DWELLING/ YARD 33 → 23 TUBED/PIPED PUBLIC WELL OR BOREHOLE 34 SURFACE WATER SPRING..... 41 RIVER/STREAM/ POND/LAKE/DAM .. 42 RAINWATER..... 51 → 23 TANKER TRUCK/WATER VENDOR 61 → 23 BOTTLED WATER..... 71 → 23 OTHER 96																									
22C	How long does it take you to go there, get water, and come back?	MINUTES <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES 996																									
23	What kind of toilet facility do most members of your household use? IF FLUSH TOILET OR LATRINE, PROBE TO DETERMINE IF THE TOILET IS CONNECTED TO SEWER OR TO A SEPTIC TANK	FLUSH TOILET FLUSH CONNECTED TO SEWER/WITH SEPTIC TANK 11 FLUSH UNCONNECTED TO SEWER/WITHOUT SEPTIC TANK..... 12 PIT TOILET/LATRINE LATRINE CONNECTED TO SEWER/WITH SEPTIC TANK 21 TRADITIONAL PIT/LATRINE UNCONNECTED TO SEWER/WITHOUT SEPTIC TANK..... 22 NO FACILITY/FIELD 31 → 25 OTHER 96																									
24	Do you share this facility with other households?	YES..... 1 NO 2																									
25	Does your household have: Electricity? A wardrobe? A sewing machine or loom? A radio/tape recorder? A television? A telephone/Cellular phone? A refrigerator?	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>ELECTRICITY</td> <td>1</td> <td>2</td> </tr> <tr> <td>WARDROBE</td> <td>1</td> <td>2</td> </tr> <tr> <td>SEWING MACHINE/LOOM</td> <td>1</td> <td>2</td> </tr> <tr> <td>RADIO/TAPE RECORDER.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>TELEVISION</td> <td>1</td> <td>2</td> </tr> <tr> <td>TELEPHONE/CEL. PHONE</td> <td>1</td> <td>2</td> </tr> <tr> <td>REFRIGERATOR.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	ELECTRICITY	1	2	WARDROBE	1	2	SEWING MACHINE/LOOM	1	2	RADIO/TAPE RECORDER.....	1	2	TELEVISION	1	2	TELEPHONE/CEL. PHONE	1	2	REFRIGERATOR.....	1	2	
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REFRIGERATOR.....	1	2																									
26	What type of fuel does your household mainly use for cooking?	ELECTRICITY 1 LPG/NATURAL GAS..... 2 KEROSENE..... 3 CHARCOAL 4 FIREWOOD, STRAW 5 OTHER 6																									

27	<p>MAIN MATERIAL OF THE FLOOR.</p> <p>RECORD OBSERVATION.</p>	<p>NATURAL FLOOR</p> <p>EARTH/SAND/CLAY..... 11</p> <p>RUDIMENTARY FLOOR</p> <p>WOOD PLANKS 21</p> <p>BAMBOO STRIPS/THATCH/PALM..... 22</p> <p>FINISHED FLOOR</p> <p>PARQUET OR POLISHED WOOD 31</p> <p>VINYL OR ASPHALT STRIPS..... 32</p> <p>CERAMIC TILES/MARBLE..... 33</p> <p>CEMENT 34</p> <p>HOUSE BOAT 41</p> <p>OTHER 96</p>																						
27A	<p>MAIN MATERIAL OF THE ROOF.</p> <p>RECORD OBSERVATION.</p>	<p>PLASTIC SHEET/TENT..... 1</p> <p>THATCH/PALM/BAMBOO/BARK 2</p> <p>GALVANIZED IRON/ALUMINUM..... 3</p> <p>TILES/CEMENT/CONCRETE/ FIBROUS CEMENT..... 4</p> <p>OTHER 6</p>																						
28	<p>Does any member of your household own:</p> <p>A bicycle or cyclo?</p> <p>A motorcycle or moped or motor scooter?</p> <p>A car or truck or van?</p> <p>A boat with a motor?</p> <p>A boat without a motor?</p> <p>An Oxcart/ Horsecart</p>	<table> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>BICYCLE/CYCLO.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>MOTORCYCLE/SCOOTER.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>CAR/TRUCK/VAN.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>BOAT WITH A MOTOR.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>BOAT WITHOUT A MOTOR.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>OX CART.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	BICYCLE/CYCLO.....	1	2	MOTORCYCLE/SCOOTER.....	1	2	CAR/TRUCK/VAN.....	1	2	BOAT WITH A MOTOR.....	1	2	BOAT WITHOUT A MOTOR.....	1	2	OX CART.....	1	2	
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BOAT WITHOUT A MOTOR.....	1	2																						
OX CART.....	1	2																						
29	<p>Does your household have any bednets that can be used while sleeping?</p>	<p>YES..... 1</p> <p>NO 2</p>	→ 35																					
29A	<p>Were your bednets impregnated with insecticide during the last 12 months??</p>	<p>YES..... 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>																						
30	<p>CHECK COLUMNS (6) AND (7):</p> <p>NUMBER OF CHILDREN UNDER AGE 5 WHO SLEPT IN THE HOUSEHOLD LAST NIGHT</p> <p>NONE <input type="checkbox"/> _____ → 35</p> <p>ONE <input type="checkbox"/> TWO OR MORE <input type="checkbox"/> _____ → 32</p>																							
31	<p>Did (NAME) sleep under a bednet last night?</p>	<p>YES..... 1</p> <p>NO 2</p>	→ 35																					
32	<p>Did all, some or none of the children under age 5 who slept in the household last night sleep under a bednet?</p>	<p>ALL CHILDREN..... 1</p> <p>SOME CHILDREN 2</p> <p>NONE 3</p>																						
35	<p>ASK RESPONDENT FOR A TEASPOONFUL OF SALT. TEST SALT FOR IODINE AND RECORD RESULT .</p>	<p>YES, IODINE PRESENT..... 1</p> <p>NO, NO IODINE 2</p> <p>NOT TESTED/NO SALT 3</p>																						

**USE ONLY IF THE HOUSEHOLD RELATIONS MODULE IS SELECTED FOR AN
INDIVIDUAL IN THE HOUSEHOLD
(VERIFY COVER PAGE)**

ELIGIBLE WOMEN ARE 15-49 YEARS
OF AGE AND EVER-MARRIED

- 1- THERE IS ONLY ONE ELIGIBLE WOMAN IN THE HOUSEHOLD
On the first line of the table, write the line number of the eligible woman (see Column (8) of the Household Schedule): This woman will be interviewed for the Household Relations Module.

- 2- THERE IS MORE THAN ONE ELIGIBLE WOMAN IN THE HOUSEHOLD
In the table, write the line number of all the eligible women (see Columns (7A) and (8) of the Household Schedule), beginning with the oldest woman and ending with the youngest woman.

Check the cover page of the Questionnaire for the Random Number that was chosen for this household (this number will always be 1 or 2). If the number is 1, select the oldest woman (the first on the list); if the number is 2, select the youngest woman (the last on the list).

Line number of eligible women, starting with the oldest and ending with the youngest

HEIGHT AND WEIGHT MEASUREMENT

REFER TO COVER PAGE:

YES, HEIGHT AND WEIGHT DATA NO, HEIGHT AND WEIGHT DATA → **GO TO NEXT PAGE**

GO TO 36-43 TO RECORD HEIGHT AND WEIGHT DATA (THEN, CONTINUE WITH ANEMIA TESTING SECTIONS)

CHECK COLUMNS (8) AND (9): RECORD THE LINE NUMBER, NAME AND AGE OF ALL WOMEN AGE 15-49 AND ALL CHILDREN UNDER AGE 6.

WOMEN 15-49			WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49				
LINE NO.	NAME	AGE	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
FROM COL.(8)	FROM COL.(2)	FROM COL.(7)					
(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)
		YEARS					
<input type="text"/>		<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="checkbox"/>
<input type="text"/>		<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="checkbox"/>
<input type="text"/>		<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="checkbox"/>

CHILDREN UNDER AGE 6			WEIGHT AND HEIGHT MEASUREMENT OF CHILDREN BORN IN 1995 OR LATER				
LINE NO.	NAME	AGE	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
FROM COL.(9)	FROM COL.(2)	FROM COL.(7)					
		YEARS	DAY. MO. YEAR			LYINGSTAND.	
<input type="text"/>		<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/>	<input type="text"/>	1 2	<input type="checkbox"/>
<input type="text"/>		<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/>	<input type="text"/>	1 2	<input type="checkbox"/>
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<input type="text"/>		<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/>	<input type="text"/>	1 2	<input type="checkbox"/>

TICK HERE IF CONTINUATION SHEET USED

50	<p>CHECK 47 AND 48:</p> <p>NUMBER OF PERSONS WITH HEMOGLOBIN LEVEL BELOW THE CUTOFF POINT*</p> <p>ONE OR MORE <input type="checkbox"/></p> <p>NONE <input type="checkbox"/></p> <p>GIVE EACH WOMAN/PARENT/RESPONSIBLE ADULT RESULT OF HEMOGLOBIN MEASUREMENT AND CONTINUE WITH 51.**</p> <p>GIVE EACH WOMAN/PARENT/RESPONSIBLE ADULT RESULT OF HEMOGLOBIN MEASUREMENT AND END HOUSEHOLD INTERVIEW.</p>	
51	<p>We detected a low level of hemoglobin in (your blood/the blood of NAME OF CHILD(REN)). This indicates that (you/NAME OF CHILD(REN)) have developed severe or moderate anemia, which is a serious health problem. We are going to give you iron tablets as a short term treatment, however we advise you to visit a health professional in order to obtain a more long term treatment for your condition.</p> <p>GIVE THE IRON TABLETS AND REFERRAL FORM TO THE WOMAN OR PARENT/RESPONSIBLE ADULT FOR EACH PERSON WITH A HEMOGLOBIN LEVEL BELOW THE CUTOFF POINT.</p>	

* The cutoff point is 9.9 g/dl for women and children.

** If one or more women or children are below the cutoff point, read the statement in Q. 51 to each woman who is below the cutoff point and each woman/ parent/ responsible adult for whom a child is below the cutoff point.

**CAMBODIAN DEMOGRAPHIC AND HEALTH SURVEY
INDIVIDUAL QUESTIONNAIRE**

NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH

IDENTIFICATION	
PROVINCE _____	PROVINCE <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
DISTRICT _____	DISTRICT <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
COMMUNE _____	COMMUNE <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
VILLAGE _____	VILLAGE <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
NAME OF HOUSEHOLD HEAD _____	
CLUSTER NUMBER	CLUSTER <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
HOUSEHOLD NUMBER	HOUSEHOLD <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
URBAN/RURAL (URBAN=1, RURAL=2).....	URBAN/RURAL <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
PHNOM PENH =1, SIHANOUKVILLE-BAT DAMBANG-SIEM REAB=2, OTHER URBAN =3, RURAL =4.....	RESIDENCE <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
NAME AND LINE NUMBER OF WOMAN _____	

SEE COVER PAGE OF HOUSEHOLD QUESTIONNAIRE: IS THE WOMAN'S STATUS MODULE SCHEDULED FOR THIS HOUSEHOLD (YES=1, NO=2).....	<input type="checkbox"/>
SEE COVER PAGE OF HOUSEHOLD QUESTIONNAIRE: IS THE HOUSEHOLD RELATIONS MODULE SCHEDULED FOR THIS HOUSEHOLD? IF NO , WRITE 2 IN THE BOX ON THE RIGHT. IF YES , CHECK THE END OF THE HOUSEHOLD QUESTIONNAIRE (35A) FOR THE SELECTION OF THE WOMAN TO BE INTERVIEWED IN THE HOUSEHOLD RELATIONS SECTION. IS THIS WOMAN SELECTED TO BE INTERVIEWED FOR THE HOUSEHOLD RELATIONS SECTION? (YES=1, NO=2)	<input type="checkbox"/>

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table> MONTH <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table> YEAR <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;">2 0</table>
INTERVIEWER'S NAME	_____	_____	_____	NAME <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
RESULT*	_____	_____	_____	RESULT <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS <input type="checkbox"/>
TIME	_____	_____		

***RESULT CODES:**

- | | | |
|---------------|--------------------|---------------|
| 1 COMPLETED | 4 REFUSED | 7 OTHER _____ |
| 2 NOT AT HOME | 5 PARTLY COMPLETED | (SPECIFY) |
| 3 POSTPONED | 6 INCAPACITATED | |

SUPERVISOR	FIELD EDITOR	OFF. EDITOR	KEYED BY
NAME _____ <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>	NAME _____ <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>	<table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>	<table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>
DATE _____	DATE _____ <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>	<table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>	<table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table>

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the NIS/ MOH. We are conducting a national survey about the health of women and children. We would very much appreciate your participation in this survey. I would like to ask you about your health (and the health of your children). This information will help the government to plan health services. The survey usually takes between 20 and 45 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
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
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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
101	RECORD THE TIME.	HOUR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MINUTES..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in Phnom Penh, Sihanoukville/ Bat Dambang/ Siem Reab, other town, in the countryside, or in another country?	PHNOM PENH 1 SIHANOUK/BATDAMBANG/SIEM) 2 OTHER TOWN..... 3 COUNTRYSIDE 4 OTHER COUNTRY 5									
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table> ALWAYS..... 95 VISITOR 96			↳105						
104	Just before you moved here, did you live Phnom Penh, Sihanoukville/ Bat Dambang/ Siem Reab, other town, in the countryside, or in another country?	PHNOM PENH 1 SIHANOUK/BATDAMBANG/SIEM) 2 OTHER TOWN..... 3 COUNTRYSIDE 4 OTHER COUNTRY 5									
105	In what month and year were you born? IF THE RESPONDENT DOES NOT KNOW THEIR MONTH OF BIRTH IN THE GREGORIAN CALENDAR, CIRCLE '98' FOR DON'T KNOW GREG. MONTH. IF THE RESPONDENT DOES NOT KNOW THEIR YEAR OF BIRTH IN THE GREGORIAN CALENDAR, CIRCLE '9998' FOR DON'T KNOW GREG. YEAR	GREGORIAN MONTH <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table> DON'T KNOW GREG. MONTH 98 GREGORIAN YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr></table> DON'T KNOW GREG. YEAR..... 9998									
106	How old were you at your last birthday? IF A GREGORIAN DATE IS RECORDED IN 105, COMPARE AGE TO DATE AND CORRECT 105 AND/OR 106 IF INCONSISTENT. IF RESPONDENT DOESN'T KNOW HER AGE, ASK FOR THE KHMER DATE OF BIRTH AND WRITE THE RESPONSE BELOW. USE THE DATE CONVERSION CHART TO CALCULATE THE CORRECT AGE FOR THEIR BIRTHDATE, AND RECORD THAT IN THE BOXES ON THE RIGHT. _____ (SPECIFY KHMER MONTH AND YEAR)	AGE IN COMPLETED YEARS <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>									
107	Have you ever attended school?	YES 1 NO..... 2	→111								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	What is the highest level of school you attended: primary, lower secondary, upper secondary, or higher?	PRIMARY 1 LOWER SECONDARY 2 LOWER SECONDARY 3 HIGHER..... 4	
109	What is the highest grade you completed at that level?***	GRADE <input type="text"/> <input type="text"/>	
110	CHECK 108: PRIMARY <input type="checkbox"/> SECONDARY OR HIGHER <input type="checkbox"/>		→114
111	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 of this sentence to me?	CANNOT READ AT ALL 1 CANNOT SEE/ BLIND 2 ABLE TO READ ONLY PARTS OF SENTENCE 3 ABLE TO READ WHOLE SENTENCE..... 4 NO CARD WITH REQUIRED LANGUAGE 5 (SPECIFY LANGUAGE)	
112	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	
113	CHECK 111: CODE '3', '4' OR '5' CIRCLED <input type="checkbox"/> CODE '1' OR '2' CIRCLED <input type="checkbox"/>		→115
114	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK..... 2 LESS THAN ONCE A WEEK..... 3 NOT AT ALL 4	
115	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK..... 2 LESS THAN ONCE A WEEK..... 3 NOT AT ALL 4	
115A	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK..... 2 LESS THAN ONCE A WEEK..... 3 NOT AT ALL 4	
117	What is your religion?	BUDDHIST1 MOSLEM2 CHRISTIAN3 OTHER4	

*** CODES FOR Q 109				
LEVEL	PRIMARY	LOWER SECONDARY	UPPER SECONDARY	HIGHER
GRADE	00= LESS THAN 1 YEAR COMPLETED			
	01= GRADE 1 02= GRADE 2 03= GRADE 3 04= GRADE 4 05= GRADE 5 06= GRADE 6	07= GRADE 7 08= GRADE 8 09= GRADE 9	10= GRADE 10 11= GRADE 11 12= GRADE 12	01= YEAR 1 02= YEAR 2 03= YEAR 3 04= YEAR 4 +
	98= DON'T KNOW			

SECTION 2: REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
201	Now 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? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS AT HOME..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
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? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS ELSEWHERE..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
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 survived only a few hours or days?	YES..... 1 NO..... 2	→208								
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> GIRLS DEAD..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>									
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES <input type="checkbox"/> NO <input type="checkbox"/> → PROBE AND CORRECT 201-208 AS NECESSARY.										
210	CHECK 208: ONE OR MORE BIRTHS <input type="checkbox"/> NO BIRTHS <input type="checkbox"/> _____		→226								

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.									
212	213	214	215	216	217 IF ALIVE:	218 IF ALIVE	219 IF ALIVE:	220 IF DEAD:	221
What name was given to your (first/next) baby? (NAME)	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? IF GREG. DATE OF BIRTH IS NOT KNOWN, ASK FOR THE KHMER DATE OF BIRTH AND CONVERT	Is (NAME) still alive?	How much time has passed since (NAME'S) birth? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	How much time passed between the birth and death of (NAME)? 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.	Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
01	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (NEXT BIRTH)	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	
02	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2
03	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2
04	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2
05	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2
06	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2
07	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2
08	SING...1 MULT...2	BOY.. 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES..... 1 NO..... 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES..... 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS 1 <input type="text"/> <input type="text"/> MONTHS. 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	YES 1 NO 2

212	213	214	215	216	217 IF ALIVE:	218 IF ALIVE	219 IF ALIVE:	220 IF DEAD:	221
What name was given to your next baby? (NAME)	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? IF GREG. DATE OF BIRTH IS NOT KNOWN, ASK FOR THE KHMER DATE OF BIRTH AND CONVERT	Is (NAME) still alive?	How much time has passed since (NAME'S) birth? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	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.	Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
09	SING...1 MULT...2	BOY..1 GIRL..2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES.....1 NO.....2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS.....1 <input type="text"/> <input type="text"/> MONTHS.2 <input type="text"/> <input type="text"/> YEARS...3 <input type="text"/> <input type="text"/>	YES.....1 NO.....2
10	SING...1 MULT...2	BOY..1 GIRL..2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES.....1 NO.....2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS.....1 <input type="text"/> <input type="text"/> MONTHS.2 <input type="text"/> <input type="text"/> YEARS...3 <input type="text"/> <input type="text"/>	YES.....1 NO.....2
11	SING...1 MULT...2	BOY..1 GIRL..2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES.....1 NO.....2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS.....1 <input type="text"/> <input type="text"/> MONTHS.2 <input type="text"/> <input type="text"/> YEARS...3 <input type="text"/> <input type="text"/>	YES.....1 NO.....2
12	SING...1 MULT...2	BOY..1 GIRL..2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES.....1 NO.....2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ GO TO 221	DAYS.....1 <input type="text"/> <input type="text"/> MONTHS.2 <input type="text"/> <input type="text"/> YEARS...3 <input type="text"/> <input type="text"/>	YES.....1 NO.....2
222	Have you had any live births since the birth of (NAME OF LAST BIRTH)?					YES.....1 NO.....2			
223	<p>COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:</p> <p>NUMBERS ARE SAME <input type="checkbox"/> NUMBERS ARE DIFFERENT <input type="checkbox"/> → (PROBE AND RECONCILE)</p> <p>CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED.</p> <p>FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED.</p> <p>FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED.</p> <p>FOR AGE AT DEATH 12 MONTHS OR 1 YEAR.: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.</p>								
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 1995 OR LATER. IF NONE, RECORD '0'.								<input type="text"/>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	Are you pregnant now?	YES 1 NO 2 UNSURE 8	↳ 229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS <input type="text"/>	
227A	CHECK 212: NO CHILDREN <input type="checkbox"/> ONE CHILD OR MORE <input type="checkbox"/>		→ 228
227B	During this pregnancy, were you given or did you buy any iron tablets?	YES 1 NO 2 DON'T KNOW 8	↳ 228
227C	During the whole pregnancy, for how many days did you take the tablets?	NUMBER OF DAYS <input type="text"/> DON'T KNOW 998	
227D	Are you currently taking the tablets?	YES 1 NO 2	
228	At the time you became pregnant did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN 1 LATER 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES 1 NO 2	→ 236
230	When did the last such pregnancy end?	MONTH <input type="text"/> YEAR <input type="text"/>	
231	CHECK 230: LAST PREGNANCY ENDED IN JAN. 1995 OR LATER <input type="checkbox"/> LAST PREGNANCY ENDED BEFORE JAN. 1995 <input type="checkbox"/>		→ 233A
232	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS <input type="text"/>	
232A	Did this pregnancy end in an induced abortion?	YES 1 NO 2	→ 233
232B	Can you tell me what procedure was used to terminate the pregnancy?	DILATION & CURETTAGE 1 ASPIRATION 2 CAESARIAN SECTION 3 TRADITIONAL METHOD 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

232C	<p>Did anyone help you to initiate the induced abortion?</p> <p>IF YES: Who helped you to initiate the abortion?</p> <p>Anyone else?</p> <p>RECORD ALL PERSONS ASSISTING</p>	<p>HEALTH PROFESSIONAL</p> <p>DOCTOR..... A</p> <p>MIDWIFE..... B</p> <p>OTHER HEALTH WORKER..... C</p> <p>OTHER PERSON</p> <p>TRADITIONAL BIRTH ATTENDANT ... D</p> <p>PHARMACIST..... E</p> <p>KRU KHMER/MAGICIAN..... F</p> <p>RELATIVE/FRIEND G</p> <p>OTHER X</p> <p>NO ONE..... Y</p>	
232D	<p>Where did the induced abortion take place?</p> <p>IF "HOSPITAL", PROBE;</p> <p>Do you mean a permanent building where health workers are present everyday?</p> <p>IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital?</p> <p>CIRCLE THE APPROPRIATE CODE.</p>	<p>PUBLIC MEDICAL SECTOR</p> <p>CENTRAL HOSP. (P.P.)..... 11</p> <p>PROVINCIAL HOSPITAL 12</p> <p>DISTRICT HOSPITAL 13</p> <p>HEALTH CENTER 14</p> <p>KHUM CLINIC..... 15</p> <p>OTHER PUBLIC..... 16</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL..... 21</p> <p>PRIVATE CLINIC 22</p> <p>OTHER PRIVATE MEDICAL..... 26</p> <p>HOME</p> <p>YOUR HOME 31</p> <p>OTHER HOME 36</p> <p>OTHER PLACE 96</p>	<p>→233</p>
232E	<p>Was anyone present to help you at the time of the abortion?</p> <p>IF YES: Who was present to help you?</p> <p>Anyone else?</p> <p>RECORD ALL PERSONS ASSISTING</p>	<p>HEALTH PROFESSIONAL</p> <p>DOCTOR..... A</p> <p>MIDWIFE..... B</p> <p>OTHER HEALTH WORKER..... C</p> <p>OTHER PERSON</p> <p>TRADITIONAL BIRTH ATTENDANT ... D</p> <p>KRU KHMER/ MAGICIAN..... E</p> <p>RELATIVE/FRIEND F</p> <p>OTHER PERSON _____ G (SPECIFY)</p> <p>NO ONE..... X</p>	
233	<p>Have you ever had any other pregnancies, which did not result in a live birth?</p>	<p>YES..... 1</p> <p>NO..... 2</p>	<p>→236</p>
233A	<p>In total, how many induced abortions have you had in your lifetime?</p> <p>IF NONE, RECORD '00'.</p>	<p>TOTAL NUMBER ABORTIONS.... <input type="text"/> <input type="text"/></p>	

236	When did your last menstrual period start? <hr/> (DATE, IF GIVEN)	DAYS AGO 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4 IN MENOPAUSE OR HAS HAD HYSTERECTOMY 994 BEFORE LAST BIRTH/ MENSTRUAL PERIOD HAS NOT RETURNED SINCE LAST BIRTH 995 NEVER MENSTRUATED 996									
237	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES 1 NO 2 DON'T KNOW 8	↘ 301								
238	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 1 DURING HER PERIOD 2 RIGHT AFTER HER PERIOD HAS ENDED 3 HALFWAY BETWEEN TWO PERIODS 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8									

SECTION 3. CONTRACEPTION

<p>Now I would like to talk about birth spacing - the various ways or methods that a couple can use to delay or avoid a pregnancy. CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.</p>			
301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES.....1 NO2 ↘ ↓	Have you ever had an operation to avoid having any more children? YES1 NO2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES.....1 NO2 ↘ ↓	Have you ever had a partner who had an operation to avoid having any more children? YES1 NO2
03	DAILY PILL Women can take a pill every day to avoid becoming pregnant.	YES.....1 NO2 ↘ ↓	YES1 NO2
03A	MONTHLY PILL (Chinese Pill) Women can take a pill once a month to avoid becoming pregnant.	YES.....1 NO2 ↘ ↓	YES1 NO2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES.....1 NO2 ↘ ↓	YES1 NO2
05	INJECTIONS Women can have an injection by a health provider which stops them from becoming pregnant for one or more months.	YES.....1 NO2 ↘ ↓	YES1 NO2
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES.....1 NO2 ↘ ↓	YES1 NO2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES.....1 NO2 ↘ ↓	YES1 NO2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES.....1 NO2 ↘ ↓	YES1 NO2
09	DIAPHRAGM Women can place a diaphragm in their vagina before intercourse.	YES.....1 NO2 ↘ ↓	YES1 NO2
10	FOAM OR JELLY Women can place a suppository, jelly, or cream in their vagina before intercourse.	YES.....1 NO2 ↘ ↓	YES1 NO2
11	LACTATIONAL AMENORRHEA METHOD (LAM) Up to 6 months after childbirth, a woman can use a method that requires that she breastfeeds frequently, day and night, and that her menstrual period has not returned.	YES.....1 NO2 ↘ ↓	YES1 NO2
12	RHYTHM OR PERIODIC ABSTINENCE 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 NO2 ↘ ↓	YES1 NO2
13	WITHDRAWAL Men can be careful and pull out before climax.	YES.....1 NO2 ↘ ↓	YES1 NO2
14	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES.....1 NO2 ↘ ↓	YES1 NO2
15	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES 1 _____ (SPECIFY) _____ (SPECIFY) NO2 ↘ ↓	YES 1 NO 2 YES 1 NO 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	CHECK 302: NOT A SINGLE 'YES' (NEVER USED) <input type="checkbox"/> AT LEAST ONE 'YES' (EVER USED) <input type="checkbox"/>		→307
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES..... 1 NO 2	→328
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN..... <input type="text"/>	
308	CHECK 302 (01): WOMAN NOT STERILIZED <input type="checkbox"/> WOMAN STERILIZED <input type="checkbox"/>		→311A
309	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		→328
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES..... 1 NO 2	→328
311	Which method are you using? CIRCLE 'A' FOR FEMALE STERILIZATION. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST.	FEMALE STERILIZATION A MALE STERILIZATION..... B DAILY PILL..... C MONTHLY PILL D IUD E INJECTIONS..... F IMPLANTS G CONDOM..... H FEMALE CONDOM I DIAPHRAGM..... J FOAM/JELLY K LACT. AMEN. METHOD..... L PERIODIC ABSTINENCE..... M WITHDRAWAL N OTHER _____ X (SPECIFY)	↓→313 →316A
313	In what facility did the sterilization take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) IF BOTH CODE 'A' AND CODE 'B' ARE CIRCLED IN 311, ASK 313-316 ABOUT FEMALE STERILIZATION ONLY.	PUBLIC MEDICAL SECTOR CENTRAL HOSPITAL (P.P)..... 11 PROVINCIAL HOSPITAL 12 DISTRICT HOSPITAL 13 HEALTH CENTER..... 14 KHUM CLINIC..... 15 OTHER PUBLIC 16 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL..... 21 PRIVATE CLINIC..... 22 OTHER PRIVATE MEDICAL..... 26 OTHER PLACE 96 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
314	<p>CHECK 311:</p> <p>CODE 'A' CIRCLED <input type="checkbox"/> CODE 'A' NOT CIRCLED <input type="checkbox"/></p> <p>Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation?</p> <p>Before the sterilization operation, was your husband told that he would not be able to have any (more) children because of the operation?</p>	<p>YES..... 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	
316	<p>In what month and year was the sterilization performed?</p>	<p>MONTH <input type="text"/> <input type="text"/></p> <p>DON'T KNOW MONTH 98</p> <p>YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	
316A	<p>Since what month and year have you used [FIRST METHOD LISTED IN Q.311] continuously without stopping?</p> <p>IF RESPONDENT DOES NOT KNOW GREG. YEAR, USE AGE CONVERSION CHARTS TO FIND GREG. MONTH AND YEAR.</p>		
317	<p>CHECK 316/ 316A</p> <p>YEAR IS 1995 OR LATER <input type="checkbox"/> YEAR IS 1994 OR EARLIER <input type="checkbox"/></p>		→326
317A	<p>Where did you first hear about this method?</p>	<p>HEALTH FACILITY/WORKER..... 1</p> <p>FRIEND/RELATIVE 2</p> <p>RADIO/TELEVISION/NEWSPAPER..... 3</p> <p>PUBLIC HEALTH CAMPAIGN 4</p> <p>KRU KHMER/ MAGICIAN..... 5</p> <p>OTHER 6</p>	
317B	<p>CHECK 311/311A:</p> <p>CIRCLE METHOD CODE:</p> <p>IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.</p>	<p>FEMALE STERILIZATION 01</p> <p>MALE STERILIZATION..... 02</p> <p>DAILY PILL..... 03</p> <p>MONTHLY PILL 04</p> <p>IUD 05</p> <p>INJECTIONS..... 06</p> <p>IMPLANTS 07</p> <p>CONDOM 08</p> <p>FEMALE CONDOM 09</p> <p>DIAPHRAGM..... 10</p> <p>FOAM/JELLY 11</p> <p>LACTATIONAL AMEN. METHOD 12</p> <p>PERIODIC ABSTINENCE..... 13</p> <p>WITHDRAWAL 14</p> <p>OTHER METHOD 96</p>	<p>→322</p> <p>→330</p> <p>→319A</p> <p>→330</p>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
319	Where did you obtain (METHOD LISTED IN Q.317B) when you started using it?	PUBLIC MEDICAL SECTOR CENTRAL HOSPITAL (P.P.)..... 11 PROVINCIAL HOSPITAL 12 DISTRICT HOSPITAL 13 HEALTH CENTER..... 14 KHUM CLINIC..... 15 HEALTH WORKER 16 MIDWIFE 17 OTHER PUBLIC 18 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL..... 21 PRIVATE CLINIC..... 22 HOME OF TRAINED HEALTH WORKER/NURSE..... 23 VISIT OF TRAINED HEALTH WORKER/NURSE..... 24 OTHER PRIVATE MEDICAL..... 26 OTHER SOURCE DEDICATED DRUG STORE..... 31 SHOP SELLING DRUGS/MARKET ... 32 KRU KHMER/ MAGICIAN 33 MONK/ RELIGIOUS LEADER..... 34 TRADITIONAL BIRTH ATTENDENT . 35 FRIEND/RELATIVE 36 OTHER 96	
319A	Where did you learn to use the lactational amenorrhea method? IF "HOSPITAL", PROBE; Do you mean a permanent building where health workers are present everyday? IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? CIRCLE THE APPROPRIATE CODE.		
320	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	DAILY PILL..... 03 MONTHLY PILL 04 IUD 05 INJECTIONS..... 06 IMPLANTS 07 CONDOM..... 08 FEMALE CONDOM 09 DIAPHRAGM..... 10 FOAM/JELLY 11 LACTATIONAL AMEN. METHOD 12	→327 } →325
322	You first obtained (METHOD LISTED IN Q.317B) from (SOURCE OF METHOD FROM 313 OR 319). At that time, were you told about side effects or problems you might have with the method?	YES..... 1 NO 2	→325
323	Were you told what to do if you experienced side effects or problems?	YES..... 1 NO 2	
325	CHECK 320: ANY CODE '03'-'07' CIRCLED <input type="checkbox"/> At that time, were you told about other methods of birth spacing which you could use? ANY CODE '09'-'12' CIRCLED <input type="checkbox"/> You first obtained (METHOD LISTED IN Q.317B) from (SOURCE OF METHOD FROM 313 OR 319). At that time, were you told about other methods of birth spacing which you could use?	YES..... 1 NO 2	
326	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION 01 MALE STERILIZATION..... 02 DAILY PILL..... 03 MONTHLY PILL 04 IUD 05 INJECTIONS..... 06 IMPLANTS 07 CONDOM..... 08 FEMALE CONDOM 09 DIAPHRAGM..... 10 FOAM/JELLY 11 LACTATIONAL AMEN. METHOD 12 PERIODIC ABSTINENCE..... 13 WITHDRAWAL 14 OTHER METHOD 96	→330 →330 →330 →330 →330 →330 →330 →330 →330 →330 →330

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
327	<p>Where did you obtain (CURRENT METHOD) the last time?</p> <p>IF "HOSPITAL", PROBE;</p> <p>Do you mean a permanent building where health workers are present everyday?</p> <p>IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital?</p> <p>CIRCLE THE APPROPRIATE CODE.</p>	<p>PUBLIC MEDICAL SECTOR</p> <p>CENTRAL HOSPITAL (P.P.)..... 11</p> <p>PROVINCIAL HOSPITAL 12</p> <p>DISTRICT HOSPITAL 13</p> <p>HEALTH CENTER..... 14</p> <p>KHUM CLINIC..... 15</p> <p>HEALTH WORKER 16</p> <p>MIDWIFE 17</p> <p>OTHER PUBLIC 18</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL..... 21</p> <p>PRIVATE CLINIC..... 22</p> <p>HOME OF TRAINED HEALTH WORKER/NURSE..... 23</p> <p>VISIT OF TRAINED HEALTH WORKER/NURSE..... 24</p> <p>OTHER PRIVATE MEDICAL..... 26</p> <p>OTHER SOURCE</p> <p>DEDICATED DRUG STORE..... 31</p> <p>SHOP SELLING DRUGS/MARKET ... 32</p> <p>KRU KHMER/ MAGICIAN 33</p> <p>MONK/ RELIGIOUS LEADER..... 34</p> <p>TRADITIONAL BIRTH ATTENDENT . 35</p> <p>FRIEND/RELATIVE 36</p> <p>OTHER 96</p>	<p>→330</p>
328	<p>Do you know of a place where you can obtain a method of birth spacing?</p>	<p>YES..... 1</p> <p>NO 2</p>	<p>→330</p>
329	<p>Where is that?</p> <p>IF "HOSPITAL", PROBE;</p> <p>Do you mean a permanent building where health workers are present everyday?</p> <p>IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital?</p> <p>CIRCLE THE APPROPRIATE CODE.</p> <p>Any other place?</p> <p>RECORD ALL MENTIONED.</p>	<p>PUBLIC MEDICAL SECTOR</p> <p>CENTRAL HOSPITAL (P.P.).....A</p> <p>PROVINCIAL HOSPITALB</p> <p>DISTRICT HOSPITAL C</p> <p>HEALTH CENTER..... D</p> <p>KHUM CLINIC.....E</p> <p>HEALTH WORKER F</p> <p>MIDWIFE G</p> <p>OTHER PUBLIC H</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL..... I</p> <p>PRIVATE CLINIC..... J</p> <p>HOME OF TRAINED HEALTH WORKER/NURSE.....K</p> <p>VISIT OF TRAINED HEALTH WORKER/NURSE..... L</p> <p>OTHER PRIVATE MEDICAL..... M</p> <p>OTHER SOURCE</p> <p>DEDICATED DRUG STORE..... N</p> <p>SHOP SELLING DRUGS/MARKET O</p> <p>KRU KHMER/ MAGICIAN P</p> <p>MONK/ RELIGIOUS LEADER..... Q</p> <p>TRADITIONAL BIRTH ATTENDENT ... R</p> <p>FRIEND/RELATIVE S</p> <p>OTHER X</p>	
330	<p>In the last 12 months, were you visited by a community based distributor, village volunteer, health center staff on outreach, or traditional birth attendant who talked to you about birth spacing?</p>	<p>YES..... 1</p> <p>NO 2</p>	
331	<p>In the last 12 months, have you visited a health facility for care for yourself (or your children)?</p>	<p>YES..... 1</p> <p>NO 2</p>	<p>→401</p>
332	<p>Did any staff member at the health facility speak to you about birth spacing methods?</p>	<p>YES..... 1</p> <p>NO 2</p>	

SECTION 4A. PREGNANCY, POSTNATAL CARE AND BREASTFEEDING

401	CHECK 224: ONE OR MORE BIRTHS IN 1995 OR LATER <input type="checkbox"/> NO BIRTHS IN 1995 OR LATER <input type="checkbox"/>	→486	
402 ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1995 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately)			
403	LINE NUMBER FROM BIRTH HISTORY (Q.212)	LAST BIRTH LINE NUMBER FROM Q.212 <input type="text"/>	NEXT-TO-LAST BIRTH LINE NUMBER FROM Q.212 <input type="text"/>
404	FROM 212 AND 216	NAME _____ ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/>
405	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN 1 (SKIP TO 407) ← LATER 2 NOT AT ALL 3 (SKIP TO 407) ←	THEN 1 (SKIP TO 422) ← LATER 2 NOT AT ALL 3 (SKIP TO 422) ←
406	How much longer would you like to have waited?	MONTHS 1 <input type="text"/> YEARS 2 <input type="text"/> DON'T KNOW 998	MONTHS 1 <input type="text"/> YEARS 2 <input type="text"/> DON'T KNOW 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR A NURSE B MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D KRU KHMER/MAGICIAN E OTHER X NO ONE Y (SKIP TO 415) ←	
408	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS <input type="text"/> DON'T KNOW 98	
409	How many times did you receive antenatal care during this pregnancy?	NO. OF TIMES <input type="text"/> DON'T KNOW 98	
410	CHECK 409: NUMBER OF TIMES RECEIVED ANTENATAL CARE	ONCE <input type="checkbox"/> MORE THAN ONCE OR DK <input type="checkbox"/> (SKIP TO 412)	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____																		
411	How many months pregnant were you the last time you received antenatal care?	MONTHS <input type="text"/> <input type="text"/> DON'T KNOW98																			
412	During this pregnancy, were any of the following done at least once? Were you weighed? Was your height measured? Was your blood pressure measured, that means that a cuff was put around your arm and inflated? Did you give a urine sample? Did you give a blood sample?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>WEIGHT</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>HEIGHT</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>BLOOD PRESSURE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>URINE SAMPLE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>BLOOD SAMPLE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	WEIGHT	1	2	HEIGHT	1	2	BLOOD PRESSURE	1	2	URINE SAMPLE	1	2	BLOOD SAMPLE	1	2	
	YES	NO																			
WEIGHT	1	2																			
HEIGHT	1	2																			
BLOOD PRESSURE	1	2																			
URINE SAMPLE	1	2																			
BLOOD SAMPLE	1	2																			
413	Were you told about the signs of pregnancy complications?	YES 1 NO 2 (SKIP TO 415) ← DON'T KNOW 8																			
414	Were you told where to go if you had these complications?	YES 1 NO 2 DON'T KNOW 8																			
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 416) ← DON'T KNOW 8																			
415A	During this pregnancy, how many times did you get this injection?	TIMES <input type="text"/> DON'T KNOW 8																			
415B	CHECK 415A: NUMBER OF TIMES RECEIVED TETANUS TOXOID INJECTION.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">ONCE OR DON'T KNOW</th> <th style="text-align: center;">MORE THAN ONCE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> <input type="text"/> ↓ </td> <td style="text-align: center;"> <input type="text"/> ↓ (SKIP TO 416) </td> </tr> </tbody> </table>	ONCE OR DON'T KNOW	MORE THAN ONCE	<input type="text"/> ↓	<input type="text"/> ↓ (SKIP TO 416)															
ONCE OR DON'T KNOW	MORE THAN ONCE																				
<input type="text"/> ↓	<input type="text"/> ↓ (SKIP TO 416)																				
415C	Prior to this pregnancy did you receive any other injection to prevent Tetanus?	YES 1 NO 2 DON'T KNOW 8																			
416	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLET.	YES 1 NO 2 (SKIP TO 418) ← DON'T KNOW 8																			
417	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF DAYS <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW998																			
418	During this pregnancy, did you have difficulty with your vision during the daylight?	YES 1 NO 2 DON'T KNOW 8																			
419	During this pregnancy, did you suffer from chicken blindness?	YES 1 NO 2 DON'T KNOW 8																			

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
420	During this pregnancy, did you take any drugs in order to prevent you from getting malaria?	YES..... 1 NO..... 2 DON'T KNOW 8	
422	When (NAME) was born, was he/she: very large, larger than average, average, smaller than average, or very small?	VERY LARGE..... 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8	VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8
423	Was (NAME) weighed at birth?	YES..... 1 NO..... 2 (SKIP TO 425)← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 425)← DON'T KNOW 8
424	How much did (NAME) weigh? RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM CARD..... 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> GRAMS FROM RECALL..... 2 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 99998	GRAMS FROM CARD..... 1 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> GRAMS FROM RECALL..... 2 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 99998
425	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR A NURSE B MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E OTHER X NO ONE Y	HEALTH PROFESSIONAL DOCTOR A NURSE B MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E OTHER X NO ONE Y
426	Where did you give birth to (NAME)? IF "HOSPITAL", PROBE; Do you mean a permanent building where health workers are present everyday? IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? CIRCLE THE APPROPRIATE CODE.	HOME YOUR HOME 11 (SKIP TO 427A)← OTHER HOME 12 PUBLIC SECTOR CENTRAL HOSPITAL (P.P) 21 PROVINCIAL HOSPITAL 22 DISTRICT HOSPITAL 23 HEALTH CENTER 24 KHUM CLINIC 25 OTHER PUBLIC 26 PRIVATE MEDICAL SECTOR PVT. HOSPITAL 31 PVT. CLINIC 32 OTHER PVT.MEDICAL 36 OTHER 96 (SKIP TO 427A)←	HOME YOUR HOME 11 (SKIP TO 427A)← OTHER HOME 12 PUBLIC SECTOR CENTRAL HOSPITAL (P.P) 21 PROVINCIAL HOSPITAL 22 DISTRICT HOSPITAL 23 HEALTH CENTER 24 KHUM CLINIC 25 OTHER PUBLIC 26 PRIVATE MEDICAL SECTOR PVT. HOSPITAL 31 PVT. CLINIC 32 OTHER PVT.MEDICAL 36 OTHER 96 (SKIP TO 427A)←
427	Was (NAME) delivered by caesarian section?	YES..... 1 NO..... 2	YES 1 NO 2
427A	After (NAME) was born, did you practice roasting?	YES..... 1 NO..... 2 (SKIP TO 427C)←	YES 1 NO 2 (SKIP TO 427C)←
427B	How many days did you practice roasting?	DAYS <input type="text"/>	DAYS <input type="text"/>

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____								
427C	Did you register the birth of (NAME) with the Civil Authorities?	YES.....1 NO.....2 (SKIP TO 427E)←	YES.....1 NO.....2 (SKIP TO 427E)←								
427D	Do you have a Birth Certificate for (NAME)?	YES.....1 NO.....2	YES.....1 NO.....2								
427E	CHECK 426: PLACE OF DELIVERY.	AT HOME: OTHER PLACES CODES 11, 12 ALL OTHER OR 96 CIRCLED, CODES. <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <input type="checkbox"/> ↓ </div> <div style="text-align: center;"> <input type="checkbox"/> ↓ </div> </div> (SKIP TO 432)	AT HOME: OTHER PLACES CODES 11, 12 ALL OTHER OR 96 CIRCLED, CODES. <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <input type="checkbox"/> ↓ </div> <div style="text-align: center;"> <input type="checkbox"/> ↓ </div> </div> (SKIP TO 434)								
428	After (NAME) was born, did a health worker or a traditional birth attendant check on your health?	YES.....1 NO.....2 (SKIP TO 432)←	YES.....1 NO.....2								
429	How many days or weeks after the delivery did the first check take place? RECORD '00' DAYS IF SAME DAY.	DAYS AFTER DEL 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS AFTER DEL..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW998									
430	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR.....1 NURSE.....2 MIDWIFE.....3 OTHER PERSON TRADITIONAL BIRTH ATTENDANT4 KRU KHMER/MAGICIAN5 OTHER6									
431	Where did this first check take place? IF "HOSPITAL", PROBE; Do you mean a permanent building where health workers are present everyday? IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? CIRCLE THE APPROPRIATE CODE.	HOME YOUR HOME11 OTHER HOME12 PUBLIC SECTOR PROVINCIAL HOSPITAL.....21 DISTRICT HOSPITAL22 NATIONAL HOSPITAL (P.P)23 HEALTH CENTER24 KHUM CLINIC25 OTHER PUBLIC26 PRIVATE MEDICAL SECTOR PVT. HOSPITAL.....31 PVT. CLINIC.....32 OTHER PVT.MEDICAL36 OTHER96									
432	In the first two months after delivery, did you receive a vitamin A dose like this? SHOW CAPSULE.	YES.....1 NO.....2									
433	Has your period returned since the birth of (NAME)?	YES.....1 (SKIP TO 435)← NO.....2 (SKIP TO 436)←									
434	Did your period return between the birth of (NAME) and your next pregnancy?		YES.....1 NO.....2 (SKIP TO 438)←								

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
445	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS <input type="text"/> <input type="text"/>	NUMBER OF NIGHTTIME FEEDINGS..... <input type="text"/> <input type="text"/>
446	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS <input type="text"/> <input type="text"/>	NUMBER OF DAYLIGHT FEEDINGS..... <input type="text"/> <input type="text"/>
447	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
448	How many times did (NAME) eat solid, semi-solid or soft food other than liquids yesterday during the day and at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES <input type="text"/> DON'T KNOW 8	NUMBER OF TIMES <input type="text"/> (SKIP TO 450) ← <input type="text"/> DON'T KNOW 8

		LAST BIRTH		NEXT-TO-LAST BIRTH
		NAME _____		NAME _____
449	<p>Now I would like to ask you about the liquids [NAME] drank over the last seven days, including yesterday.</p> <p>How many days during the last seven days did [NAME] drink each of the following liquids ?</p> <p>FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, ASK: In total, how many times yesterday during the day or at night was [NAME] given [ITEM]?</p> <p>a Plain water?</p> <p>b Commercially produced infant formula?</p> <p>c Any other milk such as tinned, powdered, or sweetened condensed milk?</p> <p>d Fruit juice such as coconut juice?</p> <p>e Any other liquids such as sugar water, tea, carbonated drinks, or soup broth?</p>	<p>LAST 7 DAYS</p> <p>NUMBER OF DAYS</p> <p>a <input type="text"/></p> <p>b <input type="text"/></p> <p>c <input type="text"/></p> <p>d <input type="text"/></p> <p>e <input type="text"/></p>	<p>YESTERDAY/ LAST NIGHT</p> <p>NUMBER OF TIMES</p> <p>a <input type="text"/></p> <p>b <input type="text"/></p> <p>c <input type="text"/></p> <p>d <input type="text"/></p> <p>e <input type="text"/></p>	
449A	<p>Now I would like to ask you about the types of foods other than liquids [NAME] has been fed over the last seven days, including yesterday.</p> <p>How many days during the last seven days did [NAME] eat each of the following foods either separately or combined with other food?</p> <p>FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, ASK: In total, how many times yesterday during the day or at night was [NAME] given [ITEM]?</p> <p>f Rice, rice flour, maize, bread, wheat, cakes, porridge, or noodles,?</p> <p>g Pumpkin, red or yellow yams or squash, carrots, or orange sweet potatoes?</p> <p>h Any other food made from roots or tubers such as white potatoes, taro, white or purple yams, cassava, or daikon?</p> <p>i Any green leafy vegetables such as morning glory, basil, amaranth, mustard greens?</p> <p>j Ripe mango, ripe papaya, jackfruit, or durian?</p> <p>k Any other fruits and vegetables such as bananas, green beans, tomatoes, watermelon, pineapple?</p> <p>l Red meats, poultry, fish, shellfish, snake, snails, frog, rat, or insects?</p> <p>m Liver, tripe, kidneys, and other organ meats, or eggs?</p> <p>n Any food made from legumes such as beans, mung beans, soybeans, tofu or nuts?</p> <p>o Any food made with oil, fat, or coconut milk?</p> <p>IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.</p>	<p>LAST 7 DAYS</p> <p>NUMBER OF DAYS</p> <p>f <input type="text"/></p> <p>g <input type="text"/></p> <p>h <input type="text"/></p> <p>i <input type="text"/></p> <p>j <input type="text"/></p> <p>k <input type="text"/></p> <p>l <input type="text"/></p> <p>m <input type="text"/></p> <p>n <input type="text"/></p> <p>o <input type="text"/></p>	<p>YESTERDAY/ LAST NIGHT</p> <p>NUMBER OF TIMES</p> <p>f <input type="text"/></p> <p>g <input type="text"/></p> <p>h <input type="text"/></p> <p>i <input type="text"/></p> <p>j <input type="text"/></p> <p>k <input type="text"/></p> <p>l <input type="text"/></p> <p>m <input type="text"/></p> <p>n <input type="text"/></p> <p>o <input type="text"/></p>	

SECTION 4B. IMMUNIZATION AND HEALTH

451	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1995 OR LATER. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRES).																																																																																																																										
452	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER..... <input type="text"/> <input type="text"/>	NEXT-TO-LAST BIRTH LINE NUMBER..... <input type="text"/> <input type="text"/>																																																																																																																								
453	FROM 212 AND 216	NAME _____	NAME _____																																																																																																																								
		ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO TO 453 IN NEXT COLUMN ;OR, IF NO MORE BIRTHS, GO TO 485)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO TO 453 IN LAST COLUMN OF NEW QUESTIONNAIRE OR, IF NO MORE BIRTHS, GO TO 485)																																																																																																																								
454	Did (NAME) receive a Vitamin A dose like this during the last 6 months? SHOW CAPSULE..	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8																																																																																																																								
455	Do you have a yellow card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN.....1 (SKIP TO 457)← YES, NOT SEEN.....2 (SKIP TO 459)← NO CARD.....3	YES, SEEN.....1 (SKIP TO 457)← YES, NOT SEEN.....2 (SKIP TO 459)← NO CARD.....3																																																																																																																								
456	Did you ever have a yellow vaccination card for (NAME)?	YES.....1 (SKIP TO 459)← NO.....2	YES.....1 (SKIP TO 459)← NO.....2																																																																																																																								
457	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE YELLOW CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.	DAY MONTH YEAR BCG.. <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P0.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P1.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P2.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P3.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D1.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D2.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D3.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>MEA..</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>VIT. A</td><td></td><td></td><td></td><td></td><td></td></tr></table>							P0.....						P1.....						P2.....						P3.....						D1.....						D2.....						D3.....						MEA..						VIT. A						DAY MONTH YEAR BCG.. <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P0.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P1.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P2.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>P3.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D1.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D2.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D3.....</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>MEA..</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>VIT. A</td><td></td><td></td><td></td><td></td><td></td></tr></table>							P0.....						P1.....						P2.....						P3.....						D1.....						D2.....						D3.....						MEA..						VIT. A					
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		LAST BIRTH	NEXT-TO-LAST BIRTH
		NAME _____	NAME _____
458	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINE(S) AND/OR VITAMIN A.	YES..... 1 (PROBE FOR VACCINATIONS ← AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) _____ (SKIP TO 463) ←	YES..... 1 (PROBE FOR VACCINATIONS ← AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) _____ (SKIP TO 463) ←
		NO..... 2 (SKIP TO 463) ←	NO..... 2 (SKIP TO 463) ←
		DON'T KNOW 8	DON'T KNOW 8
459	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES..... 1 NO..... 2 (SKIP TO 463) ← DON'T KNOW 8	YES..... 1 NO..... 2 (SKIP TO 463) ← DON'T KNOW 8
460	Please tell me if (NAME) received any of the following vaccinations:		
460A	A BCG vaccination against tuberculosis, that is, an injection in the left arm or shoulder that usually causes a scar?	YES..... 1 NO..... 2 DON'T KNOW 8	YES..... 1 NO..... 2 DON'T KNOW 8
460B	Polio vaccine, that is, drops in the mouth?	YES..... 1 NO..... 2 (SKIP TO 460E) ← DON'T KNOW 8	YES..... 1 NO..... 2 (SKIP TO 460E) ← DON'T KNOW 8
460C	When was the first polio vaccine received, just after birth or later?	JUST AFTER BIRTH..... 1 LATER 2	JUST AFTER BIRTH..... 1 LATER 2
460D	How many times was the polio vaccine received?	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>
460E	DPT vaccination, that is, an injection given in the right arm, sometimes at the same time as polio drops?	YES..... 1 NO..... 2 (SKIP TO 460G) ← DON'T KNOW 8	YES..... 1 NO..... 2 (SKIP TO 460G) ← DON'T KNOW 8
460F	How many times?	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>
460G	An injection usually given in the right thigh to prevent measles?	YES..... 1 NO..... 2 DON'T KNOW 8	YES..... 1 NO..... 2 DON'T KNOW 8
463	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES..... 1 NO..... 2 DON'T KNOW 8	YES..... 1 NO..... 2 DON'T KNOW 8
464	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES..... 1 NO..... 2 (SKIP TO 466) ← DON'T KNOW 8	YES..... 1 NO..... 2 (SKIP TO 466) ← DON'T KNOW 8
465	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, fast breaths?	YES..... 1 NO..... 2 DON'T KNOW 8	YES..... 1 NO..... 2 DON'T KNOW 8
466	CHECK 463 AND 464: FEVER OR COUGH?	'YES' IN 463 OR "NO" OR "DK" IN 464 <input type="checkbox"/> ↓ (SKIP TO 472A)	'YES' IN 463 OR "NO" OR "DK" IN 464 <input type="checkbox"/> ↓ (SKIP TO 472A)
467	Did you seek advice or treatment for the fever/cough?	YES..... 1 NO..... 2 (SKIP TO 469) ←	YES..... 1 NO..... 2 (SKIP TO 469) ←

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
468	<p>Where did you first seek advice or treatment?*</p> <p>RECORD CODE FOR FIRST LOCATION.</p> <p>After the first visit to (NAME OF FIRST LOCATION), did you return to this place or did you seek advice or treatment anywhere else?</p> <p>IF "NO" GO TO Q. 469. IF "YES"; For the second visit, where did you seek advice or treatment? *</p> <p>RECORD CODE FOR SECOND LOCATION.</p> <p>After the second visit to (NAME OF SECOND LOCATION), did you return to this place or did you seek advice or treatment anywhere else?</p> <p>IF "NO" GO TO Q. 469. IF "YES"; For the third visit, where did you next seek advice or treatment? *</p> <p>RECORD CODE FOR THIRD LOCATION.</p>	<p>FIRST LOCATION..... <input type="text"/></p> <p>SECOND LOCATION..... <input type="text"/></p> <p>THIRD LOCATION..... <input type="text"/></p> <p>IF NO TREATMENT AT THE SECOND AND/OR THIRD LOCATION (S), RECORD '00' IN THE BOXES.</p>	<p>FIRST LOCATION..... <input type="text"/></p> <p>SECOND LOCATION..... <input type="text"/></p> <p>THIRD LOCATION..... <input type="text"/></p> <p>IF NO TREATMENT AT THE SECOND AND/OR THIRD LOCATION (S), RECORD '00' IN THE BOXES.</p>
469	CHECK 463: HAD FEVER?	<p>'YES' IN 463 <input type="checkbox"/></p> <p>'NO'/'DK' IN 463 <input type="checkbox"/></p> <p>(SKIP TO 472A)</p>	<p>'YES' IN 463 <input type="checkbox"/></p> <p>'NO'/'DK' IN 463 <input type="checkbox"/></p> <p>(SKIP TO 472A)</p>
470	Did (NAME) take any drugs for the fever?	<p>YES..... 1</p> <p>NO..... 2</p> <p>(SKIP TO 472A) ←</p> <p>DON'T KNOW 8</p>	<p>YES..... 1</p> <p>NO..... 2</p> <p>(SKIP TO 472A) ←</p> <p>DON'T KNOW 8</p>
471A	<p>Was (NAME) given anything to treat the fever?</p> <p>IF 'YES'; What was given to treat the fever?</p> <p>Anything else?</p> <p>RECORD ALL MENTIONED.</p>	<p>PILL OR SYRUPA</p> <p>INJECTION.....B</p> <p>(I.V.) INTRAVENOUS.....C</p> <p>HOME REMEDIES/ HERBAL MEDICINES.....D</p> <p>OTHERX</p> <p>NOTHING.....Y</p>	<p>PILL OR SYRUP.....A</p> <p>INJECTION.....B</p> <p>(I.V.) INTRAVENOUS.....C</p> <p>HOME REMEDIES/ HERBAL MEDICINES.....D</p> <p>OTHERX</p> <p>NOTHING.....Y</p>
472A	Has (NAME) had watery diarrhea in the last 2 weeks?	<p>YES..... 1</p> <p>NO..... 2</p> <p>DON'T KNOW 8</p>	<p>YES..... 1</p> <p>NO..... 2</p> <p>DON'T KNOW 8</p>
472B	Has (NAME) had diarrhea with blood in the last 2 weeks?	<p>YES..... 1</p> <p>NO..... 2</p> <p>DON'T KNOW 8</p>	<p>YES..... 1</p> <p>NO..... 2</p> <p>DON'T KNOW 8</p>

* CODES FOR Q 468

PUBLIC SECTOR

- 11 = CENTRAL HOSPITAL (P.P.)
- 12 = PROVINCIAL HOSPITAL
- 13 = DISTRICT HOSPITAL
- 14 = HEALTH CENTER
- 15 = KHUM CLINIC
- 16 = HEALTH WORKER
- 17 = OTHER PUBLIC

PRIVATE MEDICAL SECTOR

- 21 = PRIVATE HOSPITAL
- 22 = PRIVATE CLINIC
- 23 = HOME OF TRAINED HEALTH WORKER/NURSE
- 24 = VISIT OF TRAINED HEALTH WORKER/NURSE
- 26 = OTHER PRIVATE MEDICAL

NOT MEDICAL SECTOR

- 31 = DEDICATED DRUG STORE
- 32 = SHOP SELLING DRUGS/MARKET
- 33 = KRU KHMER/MAGICIAN
- 34 = MONK/RELIG. LEADER
- 35 = TRAD. BIRTH ATTENDANT
- 96 = OTHER

		LAST BIRTH		NEXT-TO-LAST BIRTH	
		NAME _____		NAME _____	
472C	CHECK 472A AND 472B: HAD DIARRHEA?	'YES' IN 472A AND/OR 472B <input type="checkbox"/> ↓	'NO'/'DK' IN BOTH 472A AND 472B <input type="checkbox"/> ↓ (SKIP TO 480)	'YES' IN 472A AND/OR 472B <input type="checkbox"/> ↓	'NO'/'DK' IN BOTH 472A AND 472B <input type="checkbox"/> ↓ (SKIP TO 480)
473	Now I would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink?	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 NOTHING TO DRINK..... 4 DON'T KNOW..... 8	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 NOTHING TO DRINK..... 4 DON'T KNOW..... 8	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 NOTHING TO DRINK..... 4 DON'T KNOW..... 8	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 NOTHING TO DRINK..... 4 DON'T KNOW..... 8
474	When (NAME) had diarrhea, was he/she offered less than usual to eat, about the same amount, more than usual, or nothing to eat?	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 STOPPED FOOD..... 4 NEVER GAVE FOOD..... 5 DON'T KNOW..... 8	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 STOPPED FOOD..... 4 NEVER GAVE FOOD..... 5 DON'T KNOW..... 8	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 STOPPED FOOD..... 4 NEVER GAVE FOOD..... 5 DON'T KNOW..... 8	LESS..... 1 ABOUT THE SAME..... 2 MORE..... 3 STOPPED FOOD..... 4 NEVER GAVE FOOD..... 5 DON'T KNOW..... 8
475	Was he/she given any of the following to drink: a A fluid made from a special packet called 'ORALYTE'? b A recommended home-made fluid prepared with water, salt, and sugar? c A home-made fluid prepared with rice water?	<p style="text-align: center;">YES NO DK</p> FLUID FROM ORS PKT..... 1 2 8 HOME-MADE FLUID..... 1 2 8 RICE WATER..... 1 2 8		<p style="text-align: center;">YES NO DK</p> FLUID FROM ORS PKT..... 1 2 8 HOME-MADE FLUID..... 1 2 8 RICE WATER..... 1 2 8	
476	Was anything (else) given to treat the diarrhea?	YES..... 1 NO..... 2 (SKIP TO 478) ← DON'T KNOW..... 8	YES..... 1 NO..... 2 (SKIP TO 478) ← DON'T KNOW..... 8	YES..... 1 NO..... 2 (SKIP TO 478) ← DON'T KNOW..... 8	YES..... 1 NO..... 2 (SKIP TO 478) ← DON'T KNOW..... 8
477	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	PILL OR SYRUPA INJECTION.....B (I.V.) INTRAVENOUS.....C HOME REMEDIES/ HERBAL MEDICINES OR COCONUT JUICE.....D OTHER X	PILL OR SYRUPA INJECTION.....B (I.V.) INTRAVENOUS.....C HOME REMEDIES/ HERBAL MEDICINES OR COCONUT JUICE.....D OTHER X	PILL OR SYRUPA INJECTION.....B (I.V.) INTRAVENOUS.....C HOME REMEDIES/ HERBAL MEDICINES OR COCONUT JUICE.....D OTHER X	PILL OR SYRUPA INJECTION.....B (I.V.) INTRAVENOUS.....C HOME REMEDIES/ HERBAL MEDICINES OR COCONUT JUICE.....D OTHER X
478	Did you seek advice or treatment for the diarrhea?	YES..... 1 NO..... 2 (SKIP TO 480) ←	YES..... 1 NO..... 2 (SKIP TO 480) ←	YES..... 1 NO..... 2 (SKIP TO 480) ←	YES..... 1 NO..... 2 (SKIP TO 480) ←

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
479	<p>Where did you first seek advice or treatment?*</p> <p>RECORD CODE FOR FIRST LOCATION.</p> <p>After the first visit to (NAME OF FIRST LOCATION), did you return to this place or did you seek advice or treatment anywhere else?</p> <p>IF "NO" GO TO Q. 480. IF "YES"; For the second visit, where did you seek advice or treatment? *</p> <p>RECORD CODE FOR SECOND LOCATION.</p> <p>After the second visit to (NAME OF SECOND LOCATION), did you return to this place or did you seek advice or treatment anywhere else?</p> <p>IF "NO" GO TO Q. 480. IF "YES"; For the third visit, where did you next seek advice or treatment? *</p> <p>RECORD CODE FOR THIRD LOCATION.</p>	<p>FIRST LOCATION..... <input type="text"/></p> <p>SECOND LOCATION..... <input type="text"/></p> <p>THIRD LOCATION <input type="text"/></p> <p>IF NO TREATMENT AT THE SECOND AND/OR THIRD LOCATION (S), RECORD '00' IN THE BOXES.</p>	<p>FIRST LOCATION..... <input type="text"/></p> <p>SECOND LOCATION..... <input type="text"/></p> <p>THIRD LOCATION <input type="text"/></p> <p>IF NO TREATMENT AT THE SECOND AND/OR THIRD LOCATION (S), RECORD '00' IN THE BOXES.</p>
480		GO BACK TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 485.	GO BACK TO 453 IN LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 485.

* CODES FOR Q 479

PUBLIC SECTOR

- 11 = CENTRAL HOSPITAL (P.P.)
- 12 = PROVINCIAL HOSPITAL
- 13 = DISTRICT HOSPITAL
- 14 = HEALTH CENTER
- 15 = KHUM CLINIC
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- 33 = KRU KHMER/MAGICIAN
- 34 = MONK/RELIG. LEADER
- 35 = TRAD. BIRTH ATTENDANT
- 96 = OTHER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																											
485	CHECK 475a, ALL COLUMNS: NOT ASKED OR NO CHILD RECEIVED FLUID FROM ORS PACKET <input type="checkbox"/> ANY CHILD RECEIVED FLUID FROM ORS PACKET <input type="checkbox"/>		→487																											
486	Have you ever heard of a special product called "ORALYTE" you can get for the treatment of diarrhea?	YES..... 1 NO 2																												
487	CHECK 218: HAS ONE OR MORE CHILDREN LIVING WITH HER <input type="checkbox"/> HAS NO CHILDREN LIVING WITH HER <input type="checkbox"/>		→489																											
488	When (your child/one of your children) is seriously ill, can you decide by yourself whether or not the child should be taken for medical treatment?	YES..... 1 NO 2 DEPENDS 3 CHILD NEVER SICK 4	→489																											
488A	If (your child/ one of your children) became seriously ill, could you decide by yourself whether the child should be taken for medical treatment?	YES..... 1 NO 2 DEPENDS 3																												
489	Now I would like to ask you some questions about medical care for you yourself. 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 problem or not? a) Does not know where to go. b) Getting permission to go. c) Getting money needed for treatment. d) The distance to health facility. e) Having to take transport. f) Not wanting to go alone. g) There may not be a female health provider. h) Not wanting to leave house or child(ren) alone.	<table border="1"> <thead> <tr> <th></th> <th>BIG PROBLEM</th> <th>NOT A BIG PROBLEM</th> </tr> </thead> <tbody> <tr> <td>a)</td> <td>1</td> <td>2</td> </tr> <tr> <td>b)</td> <td>1</td> <td>2</td> </tr> <tr> <td>c).....</td> <td>1</td> <td>2</td> </tr> <tr> <td>d)</td> <td>1</td> <td>2</td> </tr> <tr> <td>e)</td> <td>1</td> <td>2</td> </tr> <tr> <td>f)</td> <td>1</td> <td>2</td> </tr> <tr> <td>g)</td> <td>1</td> <td>2</td> </tr> <tr> <td>h)</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		BIG PROBLEM	NOT A BIG PROBLEM	a)	1	2	b)	1	2	c).....	1	2	d)	1	2	e)	1	2	f)	1	2	g)	1	2	h)	1	2	
	BIG PROBLEM	NOT A BIG PROBLEM																												
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b)	1	2																												
c).....	1	2																												
d)	1	2																												
e)	1	2																												
f)	1	2																												
g)	1	2																												
h)	1	2																												
490	Did you sleep under a bednet last night?	YES..... 1 NO 2																												
491	Do you currently use cigarettes or tobacco? IF YES: What type of tobacco do you smoke? RECORD ALL MENTIONED.	YES, CIGARETTESA YES, PIPEB YES, SMOKE OTHER TOBACCO C YES, CHEW TOBACCO D NOY	→493A																											
492	CHECK 491: CODE "A" CIRCLED <input type="checkbox"/> CODE "A" NOT CIRCLED <input type="checkbox"/>		→493A																											
493	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES .. <input type="text"/>																												
493A	Do you currently chew Betel Nut?	YES..... 1 NO 2																												

SECTION 5. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Are you currently married?	YES, CURRENTLY MARRIED 1 NO, NOT IN UNION 2	→505
502	Have you ever been married?	YES, FORMERLY MARRIED 1 NO 3	→514
504	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED 1 DIVORCED 2 SEPARATED 3	→507
505	Is your husband living with you now or is he staying elsewhere?	LIVING WITH HER 1 STAYING ELSEWHERE 2	
506	RECORD THE HUSBAND'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. <input type="text"/>	
507	Have you been married only once, or more than once?	ONCE 1 MORE THAN ONCE 2	
508	CHECK 507: <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>MARRIED ONLY ONCE</p> <p>↓</p> <p>In what month and year did you start living with your husband?</p> </div> <div style="text-align: center;"> <p>MARRIED MORE THAN ONCE</p> <p>↓</p> <p>Now we will talk about your first husband. In what month and year did you start living with him?</p> </div> </div>	MONTH <input type="text"/> DON'T KNOW MONTH 98 YEAR <input type="text"/> DON'T KNOW YEAR 9998	→514
509	How many years passed since your birth when you started living with him?	AGE IN COMPLETED YEARS ... <input type="text"/>	
514	Now I need to ask you some questions about sexual activity. I realize that these questions are sensitive, but I need to ask so that we can have a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER 00 AGE IN COMPLETED YEARS ... <input type="text"/> FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND 96	→524
515	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO 1 <input type="text"/> WEEKS AGO 2 <input type="text"/> MONTHS AGO 3 <input type="text"/> YEARS AGO 4 <input type="text"/>	→524
516	The last time you had sexual intercourse, was a condom used?	YES 1 NO 2	→517
516A	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV 1 RESPONDENT WANTED TO PREVENT PREGNANCY 2 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY 3 DID NOT TRUST PARTNER/ FEELS PARTNER HAS OTHER PARTNER 4 PARTNER REQUESTED/INSISTED 5 OTHER 6 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
517	What is your relationship to the man with whom you last had sex? IF WOMAN IS 'GIRLFRIEND' OR 'FIANCÉE', ASK: Was your boyfriend/fiancé living with you when you last had sex with him ? IF YES RECORD '1'. IF NO RECORD '2'.	SPOUSE..... 1 WOMAN IS GIRLFRIEND/FIANCÉE 2 OTHER FRIEND..... 3 CASUAL ACQUAINTANCE 4 RELATIVE 5 PROSTITUTE..... 6 OTHER 7	→519								
518	For how long have you had sexual relations with this man? IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS..... 1 <table border="1" data-bbox="1279 443 1360 485"><tr><td></td><td></td></tr></table> WEEKS..... 2 <table border="1" data-bbox="1279 495 1360 537"><tr><td></td><td></td></tr></table> MONTHS 3 <table border="1" data-bbox="1279 548 1360 590"><tr><td></td><td></td></tr></table> YEARS..... 4 <table border="1" data-bbox="1279 600 1360 642"><tr><td></td><td></td></tr></table>									
519	Have you had sexual intercourse with any other man in the last 12 months?	YES..... 1 NO..... 2	→524								
520	The last time you had sexual intercourse with another man, was a condom used?	YES..... 1 NO..... 2									
521	What is your relationship to this man with whom you had sex? IF WOMAN IS 'GIRLFRIEND' OR 'FIANCÉE', ASK: Was your boyfriend/fiancé living with you when you last had sex with him ? IF YES RECORD '1'. IF NO RECORD '2'.	SPOUSE..... 1 WOMAN IS GIRLFRIEND/FIANCÉE 2 OTHER FRIEND..... 3 CASUAL ACQUAINTANCE 4 RELATIVE 5 PROSTITUTE..... 6 OTHER 7	→523								
522	For how long have you had sexual relations with this man? IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS..... 1 <table border="1" data-bbox="1279 1073 1360 1115"><tr><td></td><td></td></tr></table> WEEKS..... 2 <table border="1" data-bbox="1279 1125 1360 1167"><tr><td></td><td></td></tr></table> MONTHS 3 <table border="1" data-bbox="1279 1178 1360 1220"><tr><td></td><td></td></tr></table> YEARS..... 4 <table border="1" data-bbox="1279 1230 1360 1272"><tr><td></td><td></td></tr></table>									
523	In total, with how many different men have you had sex in the last 12 months?	NUMBER OF PARTNERS..... <table border="1" data-bbox="1279 1314 1360 1356"><tr><td></td><td></td></tr></table>									
524	Do you know of a place where a person can get condoms?	YES..... 1 NO..... 2	→601								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
525	<p>Where is that?</p> <p>IF "HOSPITAL", PROBE;</p> <p>Do you mean a permanent building where health workers are present everyday?</p> <p>IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital?</p> <p>CIRCLE THE APPROPRIATE CODE.</p> <p>Any other place?</p> <p>RECORD ALL MENTIONED.</p>	<p>PUBLIC MEDICAL SECTOR</p> <p>CENTRAL HOSPITAL (P.P.) A</p> <p>PROVINCIAL HOSPITAL B</p> <p>DISTRICT HOSPITAL C</p> <p>HEALTH CENTER D</p> <p>KHUM CLINIC E</p> <p>HEALTH WORKER F</p> <p>MIDWIFE G</p> <p>OTHER PUBLIC H</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL I</p> <p>PRIVATE CLINIC J</p> <p>HOME OF TRAINED HEALTH WORKER/NURSE K</p> <p>VISIT OF TRAINED HEALTH WORKER/NURSE L</p> <p>OTHER PRIVATE MEDICAL M</p> <p>OTHER SOURCE</p> <p>DEDICATED DRUG STORE N</p> <p>SHOP SELLING DRUGS/MARKET O</p> <p>KRU KHMER/ MAGICIAN P</p> <p>MONK/ RELIGIOUS LEADER Q</p> <p>TRADITIONAL BIRTH ATTENDANT R</p> <p>FRIEND/RELATIVE S</p> <p>OTHER X</p>	
526	<p>If you wanted to, could you yourself get a condom?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW/UNSURE 8</p>	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 311/311A: NEITHER STERILIZED <input type="checkbox"/> HE OR SHE STERILIZED <input type="checkbox"/>		→614
602	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> 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? 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 (A/ANOTHER) CHILD 1 NO MORE/NONE 2 SAYS SHE CAN'T GET PREGNANT 3 UNDECIDED/DON'T KNOW AND PREGNANT 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT OR UNSURE 5	→604 →614 →610 →608
603	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How long would you like to wait from now before the birth of (a/another) child? 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 995 OTHER 996 DON'T KNOW 998	→609 →614 →609
604	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		→610
605	CHECK 310: USING A METHOD? NOT ASKED <input type="checkbox"/> NO, NOT CURRENTLY USING <input type="checkbox"/> YES, CURRENTLY USING <input type="checkbox"/>		→608
606	CHECK 603: NOT ASKED <input type="checkbox"/> 24 OR MORE MONTHS OR 02 OR MORE YEARS <input type="checkbox"/> 00-23 MONTHS OR 00-01 YEAR <input type="checkbox"/>		→610

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
607	<p>CHECK 602:</p> <p>WANTS TO HAVE A/ANOTHER CHILD <input type="checkbox"/></p> <p>You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why?</p> <p>WANTS NO MORE/NONE <input type="checkbox"/></p> <p>You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why?</p> <p>RECORD ALL MENTIONED.</p>	<p>NOT MARRIED A</p> <p>FERTILITY-RELATED REASONS</p> <p>NOT HAVING SEX B</p> <p>INFREQUENT SEX C</p> <p>MENOPAUSAL/HYSTERECTOMY D</p> <p>SUBFECUND/INFECUND E</p> <p>POSTPARTUM AMENORRHEIC F</p> <p>BREASTFEEDING G</p> <p>FATALISTIC H</p> <p>OPPOSITION TO USE</p> <p>RESPONDENT OPPOSED I</p> <p>HUSBAND/PARTNER OPPOSED J</p> <p>OTHERS OPPOSED K</p> <p>RELIGIOUS PROHIBITION L</p> <p>LACK OF KNOWLEDGE</p> <p>KNOWS NO METHOD M</p> <p>KNOWS NO SOURCE N</p> <p>METHOD-RELATED REASONS</p> <p>HEALTH CONCERNS O</p> <p>FEAR OF SIDE EFFECTS P</p> <p>LACK OF ACCESS/TOO FAR Q</p> <p>COST TOO MUCH R</p> <p>INCONVENIENT TO USE S</p> <p>INTERFERES WITH BODY'S NORMAL PROCESSES T</p> <p>OTHER X</p> <p>DON'T KNOW Z</p>	
608	<p>In the next few weeks, if you discovered that you were pregnant, would that be a big problem, a small problem, or no problem for you?</p>	<p>BIG PROBLEM 1</p> <p>SMALL PROBLEM 2</p> <p>NO PROBLEM 3</p> <p>SAYS SHE CAN'T GET PREGNANT/NOT HAVING SEX 4</p>	
609	<p>CHECK 310: USING A METHOD?</p> <p>NOT ASKED <input type="checkbox"/></p> <p>NO, NOT CURRENTLY USING <input type="checkbox"/></p> <p>YES, CURRENTLY USING <input type="checkbox"/></p>		→614
610	<p>Do you think you will use a method to delay or avoid pregnancy at any time in the future?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	→612
611	<p>Which method would you prefer to use?</p>	<p>FEMALE STERILIZATION 01</p> <p>MALE STERILIZATION 02</p> <p>DAILY PILL 03</p> <p>MONTHLY PILL 04</p> <p>IUD 05</p> <p>INJECTIONS 06</p> <p>IMPLANTS 07</p> <p>CONDOM 08</p> <p>FEMALE CONDOM 09</p> <p>DIAPHRAGM 10</p> <p>FOAM/JELLY 11</p> <p>LACT. AMEN. METHOD 12</p> <p>PERIODIC ABSTINENCE 13</p> <p>WITHDRAWAL 14</p> <p>OTHER 96</p> <p>UNSURE 98</p>	→614

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	What is the main reason that you think you will not use a method at any time in the future?	NOT MARRIED 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX..... 22 MENOPAUSAL/HYSTERECTOMY 23 SUBFECUND/INFECUND 24 WANTS AS MANY CHILDREN AS POSSIBLE 26 OPPOSITION TO USE RESPONDENT OPPOSED 31 HUSBAND/ PARTNER OPPOSED 32 OTHERS OPPOSED 33 RELIGIOUS PROHIBITION 34 LACK OF KNOWLEDGE KNOWS NO METHOD 41 KNOWS NO SOURCE..... 42 METHOD-RELATED REASONS HEALTH CONCERNS 51 FEAR OF SIDE EFFECTS..... 52 LACK OF ACCESS/TOO FAR..... 53 COST TOO MUCH..... 54 INCONVENIENT TO USE 55 INTERFERES WITH BODY'S NORMAL PROCESSES 56 OTHER 96 DON'T KNOW 98	→614
613	Would you ever use a method if you were married?	YES 1 NO 2 DON'T KNOW 8	
614	CHECK 216: HAS LIVING CHILDREN <input type="checkbox"/> NO LIVING CHILDREN <input type="checkbox"/> 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? If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NUMBER <input type="text"/> <input type="text"/> OTHER _____ 96 (SPECIFY)	→616
615	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> OTHER _____ 96 (SPECIFY)	
616	Would you say that you <u>approve</u> or <u>disapprove</u> of couples using a method to avoid getting pregnant?	APPROVE 1 DISAPPROVE 2 DON'T KNOW/UNSURE..... 3	
617	In the last few months have you seen or heard about birth spacing: On the radio? On the television? In a newspaper or magazine? Poster, billboard or leaflet?	YES NO RADIO.....1 2 TELEVISION.....1 2 NEWSPAPER OR MAGAZINE.....1 2 POSTER, BILLBOARD OR LEAFLET.....1 2	
619	In the last few months, have you discussed the practice of birth spacing with your friends, neighbors, or relatives?	YES 1 NO 2	→621

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
620	With whom? Anyone else? RECORD ALL MENTIONED.	HUSBAND A MOTHER B FATHER C SISTER(S) D BROTHER(S) E DAUGHTER F SON G MOTHER-IN-LAW H FRIENDS/NEIGHBORS I OTHER X	
621	CHECK 501: YES, CURRENTLY MARRIED <input type="checkbox"/>	NO, NOT IN UNION <input type="checkbox"/>	→701
621A	CHECK 311/311A: ANY CODE CIRCLED <input type="checkbox"/>	NO CODE CIRCLED <input type="checkbox"/>	→622
621B	You have told me that you are currently using contraception. Would you say that using contraception is mainly your decision, mainly your husband's decision or did you both decide together?	MAINLY RESPONDENT 1 MAINLY HUSBAND 2 JOINT DECISION 3 OTHER 6	
622	Now I want to ask you about your husband's views on birth spacing. Do you think that your husband approves or disapproves of couples using a method to avoid pregnancy?	APPROVES 1 DISAPPROVES 2 DON'T KNOW 8	
623	How often have you talked to your husband about birth spacing in the past year?	NEVER 1 ONCE OR TWICE 2 MORE OFTEN 3	
623A	CHECK 311/311A: NEITHER STERILIZED <input type="checkbox"/>	HE OR SHE STERILIZED <input type="checkbox"/>	→701
624	Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER 1 MORE CHILDREN 2 FEWER CHILDREN 3 DON'T KNOW 8	

SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 501 AND 502: <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> YES IN 501 CURRENTLY MARRIED <input type="checkbox"/> </div> <div style="text-align: center;"> YES IN 502 WIDOWED, DIVORCED, OR SEPARATED <input type="checkbox"/> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> NO IN 502 NEVER MARRIED <input type="checkbox"/> </div> </div>	→703 →707
702	How old was your husband on his last birthday?	AGE IN COMPLETED YEARS <input style="width: 40px;" type="text"/>	
703	Did your (last) husband ever attend school?	YES 1 NO 2	→706
704	What was the highest level of school he attended: primary, secondary, or higher? ¹	PRIMARY 1 SECONDARY 2 HIGHER 3 DON'T KNOW 8	→706
705	What was the highest grade he completed at that level? ²	GRADE <input style="width: 40px;" type="text"/> DON'T KNOW 98	
706	CHECK 701: CURRENTLY MARRIED <input type="checkbox"/> FORMERLY MARRIED <input type="checkbox"/> What is your husband's occupation? What was your (last) husband's occupation? That is, what kind of work does he mainly do? That is, what kind of work did he mainly do?	<input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/>	
706A	CHECK 701: CURRENTLY MARRIED <input type="checkbox"/> WIDOWED, DIVORCED OR SEPARATED <input type="checkbox"/>	<input style="width: 40px;" type="text"/>	→707
706B	CHECK 505: HUSBAND LIVING WITH HER <input type="checkbox"/> HUSBAND STAYING ELSEWHERE <input type="checkbox"/>	<input style="width: 40px;" type="text"/>	→707
706C	Over the past twelve months, has your husband ever lived away from home for work?	YES 1 NO 2	→707
706D	Over the past twelve months, how many times did he live away from home for work?	NUMBER OF TIMES <input style="width: 40px;" type="text"/>	
706E	Is he living away from home at present?	YES 1 NO 2	
706F	CHECK 706C: YES, STILL AWAY <input type="checkbox"/> NO, LIVING AT HOME <input type="checkbox"/> How long has he been living away from home? The last time that he lived away from home, how long was he away?	MONTHS <input style="width: 40px;" type="text"/> IF LESS THAN ONE MONTH, RECORD '00'.	

*** CODES FOR Q 705				
LEVEL	PRIMARY	LOWER SECONDARY	UPPER SECONDARY	HIGHER
GRADE	01= GRADE 1 02= GRADE 2 03= GRADE 3 04= GRADE 4 05= GRADE 5 06= GRADE 6	00= LESS THAN 1 YEAR COMPLETED 07= GRADE 7 08= GRADE 8 09= GRADE 9	10= GRADE 10 11= GRADE 11 12= GRADE 12	01= YEAR 1 02= YEAR 2 03= YEAR 3 04= YEAR 4 +
	98= DON'T KNOW			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
706G	<p>CHECK 706E:</p> <p>YES, STILL AWAY <input type="checkbox"/> NO, LIVING AT HOME <input type="checkbox"/></p> <p>Where is he living, now, in Phnom Penh, another town, the countryside, or outside Cambodia? The last time that he lived away from home, where did he live, in Phnom Penh, another town, the countryside, or outside Cambodia?</p>	PHNOM PENH 1 OTHER TOWN 2 COUNTRYSIDE 3 OUTSIDE CAMBODIA 4 DON'T KNOW 8	
707	Aside from your own housework, are you currently working?	YES 1 NO 2	→710
708	<p>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.</p> <p>Are you currently doing any of these things or any other work?</p>	YES 1 NO 2	→710
709	Have you done any work in the last 12 months?	YES 1 NO 2	→801
710	What is your occupation, that is, what kind of work do you mainly do?	<input type="checkbox"/> <input type="checkbox"/> _____ _____ _____	
711	<p>CHECK 710:</p> <p>WORKS IN AGRICULTURE <input type="checkbox"/> DOES NOT WORK IN AGRICULTURE <input type="checkbox"/></p>	_____	→713
712	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND 1 FAMILY LAND 2 RENTED LAND 3 SOMEONE ELSE'S LAND 4	
713	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	
714	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR 1 SEASONALLY/PART OF THE YEAR 2 ONCE IN A WHILE 3	
715	Are you earning money or 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	↳718
716	Who mainly decides how the money you earn will be used?	RESPONDENT 1 HUSBAND 2 RESPONDENT AND HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT AND SOMEONE ELSE JOINTLY 5	
717	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or almost all?	NONE, ALMOST NONE 1 LESS THAN HALF 2 ABOUT HALF 3 MORE THAN HALF 4 ALL, ALMOST ALL 5	
718	Do you usually work at home or away from home?	HOME 1 AWAY 2	

SECTION 8: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																
801	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES 1 NO 2	→818																
802	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES 1 NO 2 DON'T KNOW 8	↙809																
803	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX A USE CONDOMS B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER C LIMIT NUMBER OF SEXUAL PARTNERS D AVOID SEX WITH PROSTITUTES E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS F AVOID SEX WITH HOMOSEXUALS G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY H AVOID BLOOD TRANSFUSIONS I AVOID INJECTIONS J AVOID KISSING K AVOID MOSQUITO BITES L SEEK PROTECTION FROM TRADITIONAL PRACTITIONER M AVOID SHARING RAZORS, BLADES N AVOID MANICURE OR PEDICURE O OTHER _____ X (SPECIFY) DON'T KNOW Z																	
804	Can people protect themselves from getting the AIDS virus by having just one sex partner who has no other partners?	YES 1 NO 2 DON'T KNOW 8																	
805	Can people get the AIDS virus from mosquito bites?	YES 1 NO 2 DON'T KNOW 8																	
806	Can people protect themselves from getting the AIDS virus by using a condom every time they have sex?	YES 1 NO 2 DON'T KNOW 8																	
807	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES 1 NO 2 DON'T KNOW 8																	
808	Can people protect themselves from getting the AIDS virus by not having sex at all?	YES 1 NO 2 DON'T KNOW 8																	
809	Is it possible for a healthy-looking person to have the AIDS virus?	YES 1 NO 2 DON'T KNOW 8																	
811	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES 1 NO 2																	
812	Can the virus that causes AIDS be transmitted from a mother to a child?	YES 1 NO 2 DON'T KNOW 8	↙814																
813A	When can the virus that causes AIDS be transmitted from a mother to a child? Can it be transmitted... a) During pregnancy? b) During delivery? c) During breastfeeding?	<table border="0"> <tr> <td></td> <td align="center" colspan="3">YES NO DK</td> </tr> <tr> <td>DURING PREGNANCY.....</td> <td align="center">1</td> <td align="center">2</td> <td align="center">8</td> </tr> <tr> <td>DURING DELIVERY.....</td> <td align="center">1</td> <td align="center">2</td> <td align="center">8</td> </tr> <tr> <td>DURING BREASTFEED.....</td> <td align="center">1</td> <td align="center">2</td> <td align="center">8</td> </tr> </table>		YES NO DK			DURING PREGNANCY.....	1	2	8	DURING DELIVERY.....	1	2	8	DURING BREASTFEED.....	1	2	8	
	YES NO DK																		
DURING PREGNANCY.....	1	2	8																
DURING DELIVERY.....	1	2	8																
DURING BREASTFEED.....	1	2	8																

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																					
814	CHECK 501: YES, CURRENTLY MARRIED <input type="checkbox"/> NO, NOT IN UNION <input type="checkbox"/>		→815A																					
815	Have you ever talked about ways to prevent getting the virus that causes AIDS with (your husband)?	YES 1 NO 2																						
815A	In your opinion, is it acceptable or unacceptable for AIDS information to be discussed or shown : a) on the radio? b) on the TV? c) In newspapers? d) On posters, or billboards?	<table border="0"> <tr> <td></td> <td style="text-align: center;">ACCEPT- ABLE</td> <td style="text-align: center;">NOT ACCEPT- ABLE</td> </tr> <tr> <td>ON THE RADIO.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>ON THE TV.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>IN NEWSPAPERS</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>POSTERS.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </table>		ACCEPT- ABLE	NOT ACCEPT- ABLE	ON THE RADIO.....	1	2	ON THE TV.....	1	2	IN NEWSPAPERS	1	2	POSTERS.....	1	2							
	ACCEPT- ABLE	NOT ACCEPT- ABLE																						
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IN NEWSPAPERS	1	2																						
POSTERS.....	1	2																						
815B	In your opinion, is it acceptable or unacceptable for AIDS to be discussed in : a) Primary schools? b) Secondary schools? c) Work place? d) Temples, pagodas? e) Health facility? f) Community setting?	<table border="0"> <tr> <td></td> <td style="text-align: center;">ACCEPT- ABLE</td> <td style="text-align: center;">NOT ACCEPT- ABLE</td> </tr> <tr> <td>PRIMARY SCHOOL</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>SECONDARY SCH.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>WORK PLACE.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>TEMPLE.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>HEALTH FACILITY.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>COMMUNITY.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </table>		ACCEPT- ABLE	NOT ACCEPT- ABLE	PRIMARY SCHOOL	1	2	SECONDARY SCH.	1	2	WORK PLACE.....	1	2	TEMPLE.....	1	2	HEALTH FACILITY.....	1	2	COMMUNITY.....	1	2	
	ACCEPT- ABLE	NOT ACCEPT- ABLE																						
PRIMARY SCHOOL	1	2																						
SECONDARY SCH.	1	2																						
WORK PLACE.....	1	2																						
TEMPLE.....	1	2																						
HEALTH FACILITY.....	1	2																						
COMMUNITY.....	1	2																						
816	If a person learns that he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private or should this information be available to the community?	CAN BE KEPT PRIVATE 1 AVAILABLE TO COMMUNITY 2 DK/NOT SURE 8																						
817	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES 1 NO 2 DK/NOT SURE/DEPENDS 8																						
817A	Should persons with the AIDS virus who work with other persons such as in a shop, office, or farm be allowed to continue their work or not?	CAN CONTINUE WORK..... 1 SHOULD NOT CONTINUE WORK 2 DK/NOT SURE/DEPENDS 8																						
817B	Should children age 12-14 be taught about using a condom to avoid AIDS?	YES 1 NO 2 DK/NOT SURE/DEPENDS 8																						
817C	Have you ever been tested to see if you have the AIDS virus?	YES 1 NO 2	→817FX																					
817D	Would you want to be tested for the AIDS virus?	YES 1 NO 2 DON'T KNOW/UNSURE..... 8																						
817E	Do you know a place where you could go to get an AIDS test?	YES 1 NO 2	→818																					

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
817F	Where can you go for the test?	PUBLIC MEDICAL SECTOR CENTRAL HOSPITAL (P.P) A PROVINCIAL HOSPITAL..... B DISTRICT HOSPITAL C HEALTH CENTER D KHUM CLINIC E OTHER PUBLIC..... F PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL G PRIVATE CLINIC H OTHER PRIVATE MEDICAL I OTHER SOURCE DEDICATED DRUG STORE J SHOP SELLING DRUGS/MARKET K OTHER PLACE X	
817FX	Where did you go for the test? IF "HOSPITAL", PROBE; Do you mean a permanent building where health workers are present everyday? IF "YES"; Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? CIRCLE THE APPROPRIATE CODE. Any other place? RECORD ALL MENTIONED.		
818	Apart from AIDS, have you heard about (other) infections that can be transmitted through sexual contact?	YES 1 NO..... 2	→820BA
819	In a man, what signs and symptoms would lead you to think that he has such an infection? Any others? RECORD ALL MENTIONED.	ABDOMINAL PAIN A GENITAL DISCHARGE/DRIPPING B FOUL SMELLING DISCHARGE C BURNING PAIN ON URINATION D REDNESS/INFLAMMATION IN GENITAL AREA..... E SWELLING IN GENITAL AREA..... F GENITAL SORES/ULCERS G GENITAL WARTS H BLOOD IN URINE I LOSS OF WEIGHT J IMPOTENCE K SKIN INFECTION L OTHER _____ X (SPECIFY) NO SYMPTOMS Y DON'T KNOW Z	
820	In a woman, what signs and symptoms would lead you to think that she has such an infection? Any others? RECORD ALL MENTIONED.	ABDOMINAL PAIN A GENITAL DISCHARGE..... B FOUL SMELLING DISCHARGE C BURNING PAIN ON URINATION D REDNESS/INFLAMMATION IN GENITAL AREA..... E SWELLING IN GENITAL AREA..... F GENITAL SORES/ULCERS G GENITAL WARTS H BLOOD IN URINE I LOSS OF WEIGHT J HARD TO GET PREGNANT/ HAVE A CHILD K SKIN INFECTION L INFERTILITY M PROBLEM WITH PREGNANCY..... N OTHER _____ X (SPECIFY) NO SYMPTOMS Y DON'T KNOW Z	
820A	CHECK 514: HAS HAD SEXUAL INTERCOURSE <input type="checkbox"/> HAS NOT HAD SEXUAL INTERCOURSE <input type="checkbox"/>		→901
820B	During the last 12 months, have you had a sexually-transmitted disease (STD)?	YES 1 NO 2 DON'T KNOW 8	→820D

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																								
820B A	CHECK 514: HAS HAD SEXUAL INTERCOURSE <input type="checkbox"/> HAS NOT HAD SEXUAL INTERCOURSE <input type="checkbox"/>		→901																								
820D	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES 1 NO 2 DON'T KNOW 8																									
820E	CHECK 820B/820D: HAS HAD A STD OR GENITAL SORE/ULCER <input type="checkbox"/> HAS NOT HAD A STD OR GENITAL SORE/ULCER OR DOES NOT KNOW <input type="checkbox"/>		→901																								
820F	The last time you had (INFECTION FROM 820B/820D), did you seek any kind of advice or treatment?	YES 1 NO 2																									
820H	When you had (INFECTION FROM 820B/820D), did you inform the person(s) with whom you were having sexual intercourse?	YES 1 NO 2 SOME/ NOT ALL 3																									
820I	When you had (INFECTION FROM 820B/820D) did you do something to avoid infecting your sexual partner(s)?	YES 1 NO 2 PARTNER ALREADY INFECTED 3	↳901																								
820J	What did you do to avoid infecting your partner(s)? Did you.... a) Stop having sex? b) Use a condom when having sex? b) Take medicine? d) Do anything else?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">YES</th> <th style="width: 10%; text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>STOP SEXUAL ACTIVITY.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>USE CONDOM.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>TAKE MEDICINE.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>ANYTHING ELSE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td colspan="3" style="text-align: center;">▼</td> </tr> <tr> <td colspan="3" style="text-align: center;">_____</td> </tr> <tr> <td colspan="3" style="text-align: center;">(SPECIFY)</td> </tr> </tbody> </table>		YES	NO	STOP SEXUAL ACTIVITY.....	1	2	USE CONDOM.....	1	2	TAKE MEDICINE.....	1	2	ANYTHING ELSE	1	2	▼			_____			(SPECIFY)			
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ANYTHING ELSE	1	2																									
▼																											

(SPECIFY)																											

SECTION 9. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES						SKIP
901	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER <input type="text"/> <input type="text"/>						
902	CHECK 901: TWO OR MORE BIRTHS <input type="checkbox"/> ONLY ONE BIRTH <input type="checkbox"/> (RESPONDENT ONLY)							*1000A
903	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS <input type="text"/> <input type="text"/>						
904	What was the name given to your oldest (next oldest) brother or sister?	[1] _____	[2] _____	[3] _____	[4] _____	[5] _____	[6] _____	
905	Is (NAME) male or female?	MALE..... 1 FEMALE..... 2	MALE1 FEMALE.....2	MALE1 FEMALE2	MALE..... 1 FEMALE2	MALE..... 1 FEMALE 2	MALE 1 FEMALE..... 2	
906	Is (NAME) still alive?	YES 1 NO 2 ↳ GO TO 908 DK 8 ↳ GO TO [2]	YES1 NO2 ↳ GO TO 908 DK8 ↳ GO TO [3]	YES1 NO2 ↳ GO TO 908 DK8 ↳ GO TO [4]	YES..... 1 NO 2 ↳ GO TO 908 DK 8 ↳ GO TO [5]	YES 1 NO 2 ↳ GO TO 908 DK 8 ↳ GO TO [6]	YES 1 NO 2 ↳ GO TO 908 DK 8 ↳ GO TO [7]	
907	How old is (NAME)?	<input type="text"/> <input type="text"/> GO TO [2]	<input type="text"/> <input type="text"/> GO TO [3]	<input type="text"/> <input type="text"/> GO TO [4]	<input type="text"/> <input type="text"/> GO TO [5]	<input type="text"/> <input type="text"/> GO TO [6]	<input type="text"/> <input type="text"/> GO TO [7]	
908	How many years ago did (NAME) die?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	
909	How old was (NAME) when he/she died?	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [2]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [3]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [4]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [5]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [6]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [7]	
910	Was (NAME) pregnant when she died?	YES 1 GO TO 913 ← <input type="checkbox"/> NO 2	YES1 GO TO 913 ← <input type="checkbox"/> NO2	YES1 GO TO 913 ← <input type="checkbox"/> NO2	YES..... 1 GO TO 913 ← <input type="checkbox"/> NO 2	YES 1 GO TO 913 ← <input type="checkbox"/> NO 2	YES 1 GO TO 913 ← <input type="checkbox"/> NO 2	
911	Did (NAME) die during childbirth?	YES 1 GO TO 913 ← <input type="checkbox"/> NO 2	YES1 GO TO 913 ← <input type="checkbox"/> NO2	YES1 GO TO 913 ← <input type="checkbox"/> NO2	YES..... 1 GO TO 913 ← <input type="checkbox"/> NO 2	YES 1 GO TO 913 ← <input type="checkbox"/> NO 2	YES 1 GO TO 913 ← <input type="checkbox"/> NO 2	
912	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES 1 NO 2	YES1 NO2	YES1 NO2	YES..... 1 NO 2	YES 1 NO 2	YES 1 NO 2	
913	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	
IF NO MORE BROTHERS OR SISTERS, GO TO 1000A								

904	What was name given to your oldest (next oldest) brother or sister?	[7] _____	[8] _____	[9] _____	[10] _____	[11] _____	[12] _____
905	Is (NAME) male or female?	MALE..... 1 FEMALE..... 2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE..... 1 FEMALE..... 2	MALE..... 1 FEMALE..... 2
906	Is (NAME) still alive?	YES..... 1 NO..... 2 ↳GO TO 908 DK..... 8 ↳GO TO [8]	YES.....1 NO.....2 ↳GO TO 908 DK.....8 ↳GO TO [9]	YES.....1 NO.....2 ↳GO TO 908 DK.....8 ↳GO TO [10]	YES..... 1 NO..... 2 ↳GO TO 908 DK..... 8 ↳GO TO [11]	YES..... 1 NO..... 2 ↳GO TO 908 DK..... 8 ↳GO TO [12]	YES..... 1 NO..... 2 ↳GO TO 908 DK..... 8 ↳GO TO [13]
907	How old is (NAME)?	<input type="text"/> <input type="text"/> GO TO [8]	<input type="text"/> <input type="text"/> GO TO [9]	<input type="text"/> <input type="text"/> GO TO [10]	<input type="text"/> <input type="text"/> GO TO [11]	<input type="text"/> <input type="text"/> GO TO [12]	<input type="text"/> <input type="text"/> GO TO [13]
908	How many years ago did (NAME) die?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
909	How old was (NAME) when he/she died?	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [8]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [9]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [10]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [11]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [12]	<input type="text"/> <input type="text"/> FOR MALE AND FOR FEMALE WHO DIED BEFORE 12 YEARS OF AGE GO TO [13]
910	Was (NAME) pregnant when she died?	YES..... 1 GO TO 913↙ NO..... 2	YES.....1 GO TO 913↙ NO.....2	YES.....1 GO TO 913↙ NO.....2	YES..... 1 GO TO 913↙ NO..... 2	YES..... 1 GO TO 913↙ NO..... 2	YES..... 1 GO TO 913↙ NO..... 2
911	Did (NAME) die during childbirth?	YES..... 1 GO TO 913↙ NO..... 2	YES.....1 GO TO 913↙ NO.....2	YES.....1 GO TO 913↙ NO.....2	YES..... 1 GO TO 913↙ NO..... 2	YES..... 1 GO TO 913↙ NO..... 2	YES..... 1 GO TO 913↙ NO..... 2
912	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES..... 1 NO..... 2	YES.....1 NO.....2	YES.....1 NO.....2	YES..... 1 NO..... 2	YES..... 1 NO..... 2	YES..... 1 NO..... 2
913	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>

IF NO MORE BROTHERS OR SISTERS, GO TO 1000A

SECTION 10: WOMEN'S STATUS MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																									
1000A	SEE COVER PAGE : VERIFY THAT THE HOUSEHOLD HAS BEEN SELECTED FOR THE WOMAN'S STATUS MODULE ? YES <input type="checkbox"/> NO <input type="checkbox"/>		→1128																									
1001A	CHECK 501,502,504: CURRENT MARITAL STATUS AND MARK THE APPROPRIATE BOX	CURRENTLY MARRIED..... <input type="checkbox"/> WIDOWED <input type="checkbox"/> DIVORCED..... <input type="checkbox"/> SEPARATED <input type="checkbox"/> NEVER MARRIED..... <input type="checkbox"/>	→1009A																									
1001B	CHECK 507: NUMBER OF TIMES MARRIED MARRIED ONLY ONCE <input type="checkbox"/> IGNORE WORDS IN PARENTHESES IN QUESTIONS.	MARRIED MORE THAN ONCE <input type="checkbox"/> 1) IF CURRENTLY MARRIED OR SEPARATED: USE (CURRENT) IN QUESTIONS 2) IF CURRENTLY DIVORCED OR WIDOWED: USE (LAST) IN QUESTIONS																										
1002	I would now like to ask some questions about your (current/last) marriage? How long had you known your (current/last) husband before you married him?	MET ON THE WEDDING DAY.....1 LESS THAN ONE MONTH.....2 1 MONTH TO LESS THAN 1 YEAR.....3 1 YEAR OR MORE.....4 KNEW SINCE CHILDHOOD.....5 OTHER.....6																										
1004	Who chose your (current/last) husband for you?	RESPONDENT CHOSE.....1 RESPONDENT AND HUSB. CHOSE EACH OTHER.....2 RESPONDENT WITH SOMEONE ELSE CHOSE.....3 RESPONDENT'S FAMILY CHOSE.....4 HUSB. OR HIS FAMILY CHOSE RESPONDENT.....5 SOMEONE ELSE CHOSE.....6 FORCED TO BE MARRIED BY HUSBAND.....7	→1006A →1006A																									
1005	Was your consent sought when your (current/last) husband was being chosen for you, that is, were you asked whether you wanted to marry him or not?	YES.....1 NO.....2																										
1006A	Did you sign a marriage contract in front of the Sangkat Authorities?	YES.....1 NO.....2																										
1006B	Are you registered in your husband's household book or new family book as his wife?	YES.....1 NO.....2																										
1007	CHECK 1001A: MARITAL STATUS: CURRENTLY MARRIED <input type="checkbox"/> SEPARATED/ DIVORCED/ WIDOWED/ <input type="checkbox"/>		→1009A																									
1008	Do you and your husband talk about the following with each other often, sometimes, or never? a) Things that happen at his work/on the farm? b) Things that happen at home? c) What to spend money on? d) Things that happen in the community?	<table border="0"> <thead> <tr> <th></th> <th></th> <th align="center">SOME- OFTEN</th> <th align="center">TIMES</th> <th align="center">NEVER</th> </tr> </thead> <tbody> <tr> <td>EVENTS AT WORK.....</td> <td>1</td> <td>2</td> <td>3</td> <td></td> </tr> <tr> <td>EVENTS AT HOME.....</td> <td>1</td> <td>2</td> <td>3</td> <td></td> </tr> <tr> <td>MONEY MATTERS.....</td> <td>1</td> <td>2</td> <td>3</td> <td></td> </tr> <tr> <td>COMMUNITY HAPPENINGS.....</td> <td>1</td> <td>2</td> <td>3</td> <td></td> </tr> </tbody> </table>			SOME- OFTEN	TIMES	NEVER	EVENTS AT WORK.....	1	2	3		EVENTS AT HOME.....	1	2	3		MONEY MATTERS.....	1	2	3		COMMUNITY HAPPENINGS.....	1	2	3		
		SOME- OFTEN	TIMES	NEVER																								
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COMMUNITY HAPPENINGS.....	1	2	3																									

1009A	Who in your family usually has the final say on making large household purchases?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1009B	Who in your family usually has the final say on making household purchases for daily needs?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1009C	Who in your family usually has the final say on whether you should do work to earn money?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1009D	Who in your family usually has the final say on your own healthcare?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1009E	Who in your family usually has the final say on whether to use contraception?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1009F	Who in your family usually has the final say on visits to family, friends or relatives?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1010	CHECK 202, 204: HAS LIVING CHILDREN HAS ONE OR MORE LIVING CHILDREN <input type="checkbox"/> HAS NO LIVING CHILDREN <input type="checkbox"/>		→ 1013
1011A	Who in your family usually has the final say on any decisions about children's schooling?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1011B	Who in your family usually has the final say on what to do if a child falls sick?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	
1011C	Who in your family usually has the final say on whether to have another child?	RESPONDENT 1 HUSBAND 2 RESPONDENT & HUSBAND JOINTLY 3 SOMEONE ELSE 4 RESPONDENT & SOMEONE ELSE JOINTLY 5 DECISION NOT MADE /NOT APPLICABLE 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1013	<p>Now I would like to get your opinion on some aspects of family life. Please tell me if you agree or disagree with each statement:</p> <p>a) The important decisions in the family should be made by the men of the family.</p> <p>b) If the wife is working outside the home, then the husband should help her with household chores.</p> <p>c) A married woman should not be allowed to work outside the home even if she wants to.</p> <p>d) The wife has a right to express her opinion if she disagrees with what her husband is telling her.</p> <p>e) It is acceptable for a man to have sex outside his marriage.</p> <p>f) A wife should tolerate being beaten by her husband in order to keep the family together.</p> <p>g) It is better to educate a son than a daughter.</p>	<p style="text-align: right;">DIS- AGREE AGREE DK</p> <p>FAMILY DECISIONS BY MEN1 2 8</p> <p>HUSBAND SHOULD HELP1 2 8</p> <p>WOMEN SHOULD NOT WORK1 2 8</p> <p>WIFE TO EXPRESS OPINION1 2 8</p> <p>SEX OUTSIDE MARRIAGE1 2 8</p> <p>TOLERATE BEING BEATEN1 2 8</p> <p>BETTER TO EDUCATE SON1 2 8</p>	
1013A	<p>Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when:</p> <p>a) She knows her husband has a sexually transmitted disease or AIDS?</p> <p>b) She knows her husband has sex with other women?</p> <p>g) She has recently given birth?</p> <p>d) She is tired or not in the mood?</p>	<p style="text-align: right;">YES NO DK</p> <p>HAS STD/AIDS1 2 8</p> <p>OTHER WOMEN ...1 2 8</p> <p>RECENT BIRTH.....1 2 8</p> <p>TIRED/MOOD1 2 8</p>	
1013B	<p>Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:</p> <p>a) If she goes out without telling him?</p> <p>b) If she neglects the children?</p> <p>c) if she argues with him?</p> <p>d) If she refuses to have sex with him?</p> <p>e) if food is late or not well prepared?</p>	<p style="text-align: right;">YES NO DK</p> <p>GOES OUT1 2 8</p> <p>NEGLECTS.....1 2 8</p> <p>ARGUES1 2 8</p> <p>REFUSES SEX.....1 2 8</p> <p>FOOD LATE.....1 2 8</p>	
1014	<p>CHECK 1001A: MARITAL STATUS</p> <p style="text-align: center;">MARRIED <input type="checkbox"/> DIVORCED/ SEPARATED/ NEVER MARRIED <input type="checkbox"/> WIDOWED ▼</p>		→1016
1015	<p>Do any of your husband's relatives usually live with you?</p> <p>IF YES: Which of your husband's relatives usually live with you?</p> <p style="text-align: center;">RECORD ALL MENTIONED.</p>	<p>FATHER.....A</p> <p>MOTHER.....B</p> <p>BROTHER(S).....C</p> <p>SISTER(S)D</p> <p>WIFE(WIVES) OF BROTHER(S).....E</p> <p>HUSBAND(S) OF SISTER(S)F</p> <p>OTHERX</p> <p>NO/NONEY</p>	
1016	<p>Now tell me about your birth family. Is your father currently living?</p>	<p>YES1</p> <p>NO2</p> <p>DON'T KNOW8</p>	
1017	<p>Is your mother currently living?</p>	<p>YES1</p> <p>NO2</p> <p>DON'T KNOW8</p>	

1018	What is (was) the highest level of school your father attended?	NONE1 PRIMARY2 SECONDARY3 HIGHER THAN SECONDARY4 DON'T KNOW8	↳1019																																										
1018A	Could (can) your father read a newspaper or letter?	YES1 NO2 DON'T KNOW8																																											
1019	What is (was) the highest level of school your mother attended?	NONE1 PRIMARY2 SECONDARY3 HIGHER THAN SECONDARY4 DON'T KNOW8	↳1020																																										
1019A	Could (can) your mother read a newspaper or letter?	YES1 NO2 DON'T KNOW8																																											
1020	Are any members of your birth family living close enough for you to be able to visit them and come home on the same day?	YES1 NO2 LIVING IN THE SAME HOUSE3																																											
1022	If you need help or have a problem, is there someone from your family who you can depend on to: a) give you shelter for a few nights if you need it? b) give you financial support if you need	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DK</td> </tr> <tr> <td>SHELTER</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>ECONOMIC SUPPORT.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	SHELTER	1	2	8	ECONOMIC SUPPORT.....	1	2	8																															
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1028	Now I would like to ask you some questions about financial matters. I ask these questions only to understand more about the financial position of women. Please tell me if you alone, or jointly with someone else own the following: a) Land? b) This house/dwelling or the house/dwelling where you usually live? c) Any other house, apartment, or other dwelling? d) Jewelry or gems? e) Livestock such as ox, cow, buffalo? f) Car or motorbike?	<table border="0"> <tr> <td></td> <td>YES</td> <td>YES</td> <td>DOES NOT</td> </tr> <tr> <td></td> <td>ALONE</td> <td>JOINTLY</td> <td>OWN</td> </tr> <tr> <td>LAND.....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>THIS/USUAL DWELLING</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>OTHER DWELLING</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>JEWELRY.....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>LIVESTOCK.....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>CAR OR MOTORBIKE</td> <td>1</td> <td>2</td> <td>3</td> </tr> </table>		YES	YES	DOES NOT		ALONE	JOINTLY	OWN	LAND.....	1	2	3	THIS/USUAL DWELLING	1	2	3	OTHER DWELLING	1	2	3	JEWELRY.....	1	2	3	LIVESTOCK.....	1	2	3	CAR OR MOTORBIKE	1	2	3											
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1029	CHECK 1028: <table border="0"> <tr> <td>AT LEAST</td> <td></td> </tr> <tr> <td>ONE "1" CIRCLED.</td> <td><input type="checkbox"/></td> </tr> <tr> <td>OWNS AT LEAST</td> <td><input type="checkbox"/></td> </tr> <tr> <td>ONE ASSET ALONE</td> <td>▼</td> </tr> </table>	AT LEAST		ONE "1" CIRCLED.	<input type="checkbox"/>	OWNS AT LEAST	<input type="checkbox"/>	ONE ASSET ALONE	▼	NOT ONE '1' CIRCLED. DOES NOT OWN ANY ASSET <input type="checkbox"/> ALONE	→1031																																		
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ONE ASSET ALONE	▼																																												
1030	In an emergency, could you sell (any of) these assets without anyone else's permission? (ASK ONLY THOSE ASSETS CODED '1' IN 1028; FOR ASSETS CODED '2' OR '3' IN 1028, CIRCLE CODE '3')	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DOES NOT</td> </tr> <tr> <td></td> <td></td> <td></td> <td>OWN</td> </tr> <tr> <td></td> <td></td> <td></td> <td>ALONE</td> </tr> <tr> <td>a) The Land?</td> <td>LAND.....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>b) This/ usual house/dwelling?</td> <td>THIS/USUAL DWELLING</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>c) The other house, apartment, or other dwelling?</td> <td>OTHER DWELLING</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>d) The jewelry or gems?</td> <td>JEWELRY.....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>e) The livestock?</td> <td>LIVESTOCK.....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>f) The car or motorbike?</td> <td>CAR OR MOTORBIKE</td> <td>1</td> <td>2</td> <td>3</td> </tr> </table>		YES	NO	DOES NOT				OWN				ALONE	a) The Land?	LAND.....	1	2	3	b) This/ usual house/dwelling?	THIS/USUAL DWELLING	1	2	3	c) The other house, apartment, or other dwelling?	OTHER DWELLING	1	2	3	d) The jewelry or gems?	JEWELRY.....	1	2	3	e) The livestock?	LIVESTOCK.....	1	2	3	f) The car or motorbike?	CAR OR MOTORBIKE	1	2	3	
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		YES	NO	DOES NOT BUY	
1031	Do you yourself control the money needed to buy the following things?				
	a) Perishable food items like vegetables or fruits?	PERISHABLE FOOD.....	1	2	3
	b) Staple foods such as rice?	STAPLES.....	1	2	3
	c) Clothes for yourself?	CLOTHES.....	1	2	3
	d) Any kind of medicinal care for yourself?	MEDICINE.....	1	2	3
	e) Toiletries for yourself like lipstick or perfume?	TOILETRIES.....	1	2	3
1035	Do you know of any programs in this area that give loans to women so they can start or expand a business of their own?	YES.....	1		
		NO.....	2		
1036	Have you yourself ever taken out or been given a loan either in cash or in kind to start or expand a business?	YES.....	1		
		NO.....	2		
1037	Are you a member of any type of association, group or club, which holds regular meetings?	YES.....	1		
		NO.....	2		→1039
1038	What kind of association/group/club is it? RECORD ALL MENTIONED.	RELIGIOUS.....			A
		SOCIAL.....			B
		WOMEN'S ORGANIZATION.....			C
		LABOR UNION.....			D
		POLITICAL.....			E
		DEVELOPMENT COMMITTEE.....			F
		OTHER.....			X
1039	When there is a local or a national election of any kind do you vote always, sometimes, or never?	ALWAYS VOTES.....	1		
		SOMETIMES VOTES.....	2		
		NEVER VOTES.....	3		
		TOO YOUNG TO VOTE.....	4		
		NEVER AN ELECTION.....	5		
1039A	Are you aware of the trafficking of women?	YES.....	1		
		NO.....	2		
1039B	Do you know if there are any laws in Cambodia protecting women's rights?	YES.....	1		
		NO.....	2		→1100A
1039C	Could you tell me what laws have you heard about? RECORD ALL MENTIONED.	EQUAL RIGHTS.....			A
		MARRIAGE/DIVORCE.....			B
		LABOR.....			C
		ABORTION.....			D
		TRAFFICKING.....			E
		OTHER.....			X

SECTION 11: HOUSEHOLD RELATIONS MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP														
1100A	SEE COVER PAGE : VERIFY THAT THE WOMAN YOU ARE INTERVIEWING IS THE ONE SELECTED FOR THE HOUSEHOLD RELATIONS MODULE? YES <input type="checkbox"/> NO <input type="checkbox"/>		-->1128														
1100B	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL EFFECTIVE PRIVACY IS ENSURED. PRIVACY OBTAINED <input type="checkbox"/> PRIVACY NOT POSSIBLE <input type="checkbox"/>		-->1127														
	READ TO ALL RESPONDENTS: Now I would like to ask you questions about some aspects of the relationship between couples. I know that some of these questions are very personal. However, your answers are very important for helping to understand the condition of women in Cambodia. Let me assure you that your answers are completely confidential and will not be told to anyone. No one in the household will be asked or hear the questions. The interviewing must pause if privacy is lost.																
1101	CHECK 501, 504: MARITAL STATUS YES IN 501 CURRENTLY MARRIED <input type="checkbox"/>	CODES 1, 2 OR 3 CIRCLED IN 504 SEPARATED/DIVORCED/ <input type="checkbox"/> WIDOWED <input type="checkbox"/> (READ IN PAST TENSE)															
1103	Now I am going to ask you about some situations which happen to some women. Please tell me if these phrases apply to your relationship with your (last) husband? a) He (is/was) jealous or angry if you (talk/talked) to other men? b) He frequently (accuses/accused) you of being unfaithful? c) He (does/did) not permit you to meet your girl friends? d) He (tries/tried) to limit your contact with your family? e) He (insists/insisted) on knowing where you (are/were) at all time? f) He (does/did) not trust you with any money?	<table border="0"> <tr> <td></td> <td style="text-align: right;">YES NO DK</td> </tr> <tr> <td>JEALOUS</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>ACCUSES</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>NOT MEET FRIENDS</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>NO FAMILY.....</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>WHERE YOU ARE.....</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>MONEY.....</td> <td style="text-align: right;">1 2 8</td> </tr> </table>		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	
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NO FAMILY.....	1 2 8																
WHERE YOU ARE.....	1 2 8																
MONEY.....	1 2 8																
1104	Now if you will permit me, I need to ask some more questions about your relationship with your (last) husband. 1104A. (Does/did) your (last) husband ever: a) say or do something to humiliate you in front of others? YES 1 → NO 2 ↴ b) threaten you or someone close to you with harm? YES 1 → NO 2 ↴ c) Swear at you? YES 1 → NO 2 ↴	1104B How many times did this happen during the last 12 months? a) NUMBER OF TIMES..... <input type="text"/> <input type="text"/> b) NUMBER OF TIMES..... <input type="text"/> <input type="text"/> c) NUMBER OF TIMES..... <input type="text"/> <input type="text"/>															

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1105	<p>1105A. (Does/did) your (last) husband ever:</p> <p>a) push you, shake you, or throw something at you?</p> <p>b) slap you or twist your arm?</p> <p>c) punch you with his fist or with something that could hurt you?</p> <p>d) kick you or drag you?</p> <p>e) try to strangle you or burn you?</p> <p>f) threaten you with a knife, gun, or other type of weapon?</p> <p>g) attack you with a knife, gun, or other type of weapon?</p> <p>h) physically force you to have sexual intercourse even when you did not want to?</p> <p>i) force you to perform types of other sexual acts you did not want to?</p>	<p>1105B. How many times did this happen during the last 12 months?</p> <p>a) NUMBER OF TIMES..... <input type="text"/></p> <p>b) NUMBER OF TIMES..... <input type="text"/></p> <p>c) NUMBER OF TIMES..... <input type="text"/></p> <p>d) NUMBER OF TIMES..... <input type="text"/></p> <p>e) NUMBER OF TIMES..... <input type="text"/></p> <p>f) NUMBER OF TIMES..... <input type="text"/></p> <p>g) NUMBER OF TIMES..... <input type="text"/></p> <p>h) NUMBER OF TIMES..... <input type="text"/></p> <p>i) NUMBER OF TIMES..... <input type="text"/></p>	
1106	<p>CHECK 1105:</p> <p>AT LEAST ONE 'YES' <input type="checkbox"/></p> <p>NOT A SINGLE 'YES' <input type="checkbox"/></p>		→1108
1107	<p>How long after you first got married to your (last) husband did (this/any of these things) first happen?</p> <p>IF LESS THAN ONE YEAR ENTER '00'.</p>	<p>NUMBER OF YEARS..... <input type="text"/></p> <p>BEFORE MARRIAGE..... 95</p> <p>AFTER SEPARATION/DIVORCE..... 96</p>	
1108	<p>1108A Did the following ever happen because of something your (last) husband did to you:</p> <p>a) You had bruises and aches?</p> <p>b) You had an injury or a broken bone?</p> <p>c) You went to a health facility as a result of something your husband had done to you?</p>	<p>1108B. How many times did this happen during the last 12 months?</p> <p>a) NUMBER OF TIMES..... <input type="text"/></p> <p>b) NUMBER OF TIMES..... <input type="text"/></p> <p>c) NUMBER OF TIMES..... <input type="text"/></p>	
1109	<p>Have you ever hit, slapped, kicked or done anything else to physically hurt your (last) husband at times when he was not already beating or physically hurting you?</p>	<p>YES..... 1</p> <p>NO..... 2</p>	→1111

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1110	In the last 12 months, how many times have you hit, slapped, kicked or done something to physically hurt your (last) husband at a time when he was not already beating or physically hurting you?	NUMBER OF TIMES <input type="text"/>	
1111	Does (did) your husband drink (alcohol)?	YES 1 NO 2	→1113
1112	How often does (did) he get drunk: very often, only sometimes or never?	VERY OFTEN 1 SOMETIMES 2 NEVER 3	
1113	From the time you were 15 years old has anyone other than your (current/last) husband hit, slapped, kicked, or done anything else to hurt you physically?	YES 1 NO 2 NO ANSWER 6	↳1118
1114	Who has physically hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER A FATHER B STEP-MOTHER C STEP-FATHER D SISTER E BROTHER F DAUGHTER H SON G EX-HUSBAND I MOTHER-IN-LAW J FATHER-IN-LAW K OTHER FEMALE IN-LAWS L OTHER MALE IN-LAWS M OTHER FEMALE RELATIVES N OTHER MALE RELATIVES O FEMALE FRIEND/ACQUAINTANCE P MALE FRIEND/ACQUAINTANCE Q TEACHER R EMPLOYER S POLICEMAN/MILITARY T STRANGER U OTHER X	
1115	CHECK 1114: MORE THAN ONE PERSON MENTIONED <input type="checkbox"/> ONLY ONE PERSON MENTIONED <input type="checkbox"/>		→1117
1116	Who is the person who has hit, slapped, kicked, or done something to physically hurt you most often?	MOTHER 01 FATHER 02 STEP-MOTHER 03 STEP-FATHER 04 SISTER 05 BROTHER 06 DAUGHTER 07 SON 08 EX-HUSBAND 10 MOTHER-IN-LAW 11 FATHER-IN-LAW 12 OTHER FEMALE IN-LAWS 13 OTHER MALE IN-LAWS 14 OTHER FEMALE RELATIVES 15 OTHER MALE RELATIVES 16 FEMALE FRIEND/ACQUAINTANCE 17 MALE FRIEND/ACQUAINTANCE 18 TEACHER 19 EMPLOYER 20 POLICEMAN/MILITARY 21 STRANGER 22 OTHER 96	
1117	In the last 12 months, how many times has this person hit, slapped, kicked, or done something to physically hurt you in any other way?	NUMBER OF TIMES <input type="text"/>	
1118	CHECK 201, 223, 226: LIVE BIRTHS, PREGNANCY STATUS, AND NON-LIVE BIRTHS ONE OR MORE LIVE OR NON-LIVE BIRTHS <input type="checkbox"/> CURRENTLY PREGNANT <input type="checkbox"/> NO LIVE BIRTHS, NOT PREGNANT AND NO NON-LIVE BIRTHS <input type="checkbox"/>		→1121

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1119	Has any one ever hit, slapped, kicked, or done something else to hurt you physically during (any/this or any other) pregnancy?	YES 1 NO 2	→1121
1120	Who has done any of these things to physically hurt you during pregnancy? Anyone else? RECORD ALL MENTIONED.	MOTHER A FATHER B STEP-MOTHER C STEP-FATHER D SISTER E BROTHER F DAUGHTER G SON H LATE HUSBAND I EX-HUSBAND J MOTHER-IN-LAW K FATHER-IN-LAW L OTHER FEMALE IN-LAWS M OTHER MALE IN-LAWS N OTHER FEMALE RELATIVES O OTHER MALE RELATIVES P FEMALE FRIEND/ACQUAINTANCE Q MALE FRIEND/ACQUAINTANCE R TEACHER S EMPLOYER T POLICEMAN/MILITARY U STRANGER V OTHER X	
1121	CHECK 1105, 1108, 1113 AND 1119: AT LEAST ONE 'YES' <input type="checkbox"/> NOT A SINGLE 'YES' <input type="checkbox"/>		→1125
1122	Have you ever tried to get help?	YES 1 NO 2	→1124
1123	From whom have you sought help? Anyone else? RECORD ALL MENTIONED	MOTHER A FATHER B SISTER C BROTHER D MOTHER-IN-LAW E FATHER-IN-LAW F OTHER FEMALE IN-LAWS G OTHER MALE IN-LAWS H OTHER MALE RELATIVES I OTHER FEMALE RELATIVES J FRIEND K NEIGHBOR L DOCTOR/MEDICAL PERSONNEL M POLICE N VILLAGE CHIEF/SANGKAT CHIEF O LAWYER P OTHER X	→1125
1124	What is the main reason you have never sought help?	DON'T KNOW WHO TO GO TO 01 NO USE 02 PART OF LIFE 03 AFRAID OF DIVORCE/DESERTION 04 AFRAID OF FURTHER BEATINGS 05 AFRAID OF GETTING PERSON BEATING HER INTO TROUBLE 06 EMBARRASSED 07 NO MONEY 08 OTHER _____ 96 (SPECIFY)	
1125	As far as you know, did your father ever beat your mother?	YES 1 NO 2 DON'T KNOW 8	
	THANK THE RESPONDENT AGAIN FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE IMPLEMENTATION OF THE HOUSEHOLD RELATIONS MODULE ONLY.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP	
1126	PRESENCE OF CHILDREN		PRESENT ALL THE TIME	PRESENT SOME OF THE TIME	NOT PRESENT	
		CHILDREN UNDER 10 YEARS.....	1	2	3	
		CHILDREN AGE 10 OR OVER.....	1	2	3	
1127	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE THE LISTED PERSON WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?		YES ONCE	YES, MORE THAN ONCE	NO	
		HUSBAND	1	2	3	
		OTHER MALE ADULT	1	2	3	
		FEMALE ADULT.....	1	2	3	

INTERVIEWER'S COMMENTS ON THE HOUSEHOLD RELATIONS MODULE ONLY.

1128	RECORD THE TIME.	HOUR..... <table border="1" data-bbox="1312 915 1393 957"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>					
		MINUTES..... <table border="1" data-bbox="1312 968 1393 1010"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>					

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 THE SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____