DHS Comparative Reports

11

The Context of Women's Health: Results from the Demographic and Health Surveys, 1994-2001

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2) to expand the international population and health database,
3) to advance survey methodology, and
4) to develop in participating countries the skills and resources necessary to conduct high-quality demographic and health surveys.

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The Context of Women's Health: Results from the Demographic and Health Surveys, 1994-2001

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FROM THE AMERICAN PEOPLE

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Preface

One of the most significant contributions of the MEASURE DHS program is the creation of an internationally comparable body of data on the demographic and health characteristics of populations in developing countries. The *DHS Comparative Reports* series examines these data across countries in a comparative framework. The *DHS Analytical Studies* series focuses on specific topics. The principal objectives of both series are to provide information for policy formulation at the international level and to examine individual country results in an international context. Whereas *Comparative Reports* are primarily descriptive, *Analytical Studies* take a more analytical approach.

The *Comparative Reports* series covers a variable number of countries, depending on the availability of data sets. Where possible, data from previous DHS surveys are used to evaluate trends over time. Each report provides detailed tables and graphs organized by region. Survey-related issues such as questionnaire comparability, survey procedures, data quality, and methodological approaches are addressed as needed.

The topics covered in *Comparative Reports* are selected by MEASURE DHS staff in conjunction with the U.S. Agency for International Development. Some reports are updates of previously published reports.

It is anticipated that the availability of comparable information for a large number of developing countries will enhance the understanding of important issues in the fields of international population and health by analysts and policymakers.

Martin Vaessen
Project Director

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Executive Summary

This report describes the context of women's health in developing countries by reporting on key indicators found in the Demographic and Health Surveys (DHS) of 46 countries in 5 regions around the world. An analysis of the context of women's health explores the status of maternal health (since most women age 15-49 years are mothers in developing countries, key measures of women's health are based on mothers) along with the social, behavioral, and environmental contexts that encompass the lives of women.

Women's Health

The status of women's health as measured by the maternal mortality ratio (MMR), maternal nutritional status, and proportion of low birth weight babies born to women age 15-49 years is a reflection of the level of poverty under which women live. MMR is highest in sub-Saharan Africa averaging about 500 deaths per 100,000 live births, but it reaches as high as 1,000 in 4 of the 25 sub-Saharan African countries. South/Southeast Asia follows, with ratios ranging between 172 and 540 deaths per 100,000 live births. Although these ratios are appalling, they do not tell the full story of maternal health. Many women die in childbirth, but many more women survive only to live in unhealthy conditions.

This report calls for a renewed emphasis on women's health, including monitoring national-level indicators of the context in which women live. Poor nutritional status, including chronic energy and micronutrient deficiencies, undermines women's health as evidenced by the proportion of women delivering low birth weight babies. Maternal nutrition is poor worldwide. It is particularly evident in South/Southeast Asia and Latin America and the Caribbean, where three countries in each region have more than 10 percent of mothers being less than 145 cm tall. However poor rates of nutritional status, as measured by low body mass index—BMI less than 18.5—range from 10 to 19 percent in most countries. Serious undernutriton (over 20 percent) is evident in most countries in sub-Saharan Africa, South/Southeast Asia, and in Yemen in North Africa/West Asia/Europe. With the prevalence of undernutrition over 40 percent, the situation is considered critical in Eritrea and Bangladesh. Despite these levels of undernutrition, women in developing countries also suffer from over nutrition, particularly in North Africa/West Asia/Europe and Latin America and the Caribbean.

High levels of anemia (25 percent or more) among women age 15-49 years are found in all of 11 countries for which data are available. The highest proportion is found in Uzbekistan (60 percent), with Cambodia, India, and Haiti having prevalences over 50 percent. Nevertheless, iron supplementation is not widely practiced; only half of 23 countries report 50 percent or more of women receiving some iron supplementation in pregnancy. Vitamin A supplementation is quite low; 6 of 12 countries report only 11 percent of women receiving vitamin A postpartum.

A high prevalence of low birth weight babies is indicative of poor health and nutritional status among women. In 27 of the 44 countries with available birth weight data, more than 10 percent of women give birth to low birth weight children. Three countries, Yemen, India, and Haiti have a prevalence greater than 20 percent.

Social Context

Social context indicators reflect the education, employment, marital status, and household headship experiences of women that influence women's potential access to resources and information. Women's

status indicators are likely to influence the health of women by the way they limit their socioeconomic opportunities, fertility choices, nutritional status, and access and utilization of health services, along with other factors. Low rates of girls' school attendance between ages 6-10 years are evidence in all regions except Latin America and the Caribbean. Gender bias in favor of boys' school attendance is noted in half of the countries in sub-Saharan Africa, Yemen in North Africa/West Asia/Europe and in Nepal in South/Southeast Asia. Widespread female illiteracy exists in these same three regions along with limited exposure of women to mass media. Female employment rates are high but women are mostly working in agriculture which is generally of low pay and status thereby associated with a greater risk of poor health. Marital status provides a mixed blessing for women. Although marriage offers social security, it increases a woman's exposure to higher rates of fertility. Female-headed households pose an opportunity and a threat to women's health; many decisions affecting women are made at the household level but if female household heads have low education, are employed in the agricultural sector, and have an excessive workload, this does not promote women's health. About 20 percent of households are headed by women in most countries, and prevalences of over 40 percent are reported in Ghana, Namibia, and Haiti.

Behavioral Context

The behavioral context of women's health is composed of the decisions and actions that influence overall fertility, such as a woman's age at first intercourse and first marriage, fertility-limiting behaviors, use of antenatal and delivery services, and awareness of preventive HIV/AIDS practices. A key observation is that for 50 percent of women, first intercourse, marriage, and childbearing all occur during the adolescent period (under 20 years), thereby inhibiting women's opportunities to pursue education and to secure skills for self-empowerment and improved work opportunities. The median age at first marriage is higher in Central Asia and Latin America and the Caribbean than in sub-Saharan Africa and South/Southeast Asia.

To control natural fertility, the practice of child spacing and family planning is most effective. Although rates of contraceptive use are at an all-time high, countries in sub-Saharan Africa have the lowest rates of any region, with most of the countries falling below 30 percent—and traditional methods contribute significantly to current use. The highest rates of current contraceptive use are found in Latin America and the Caribbean.

Maternal health is affected by access to and utilization of health services, i.e., antenatal and delivery care. Underutilization of antenatal care is associated with suboptimal pregnancy outcomes. In 38 out of 46 countries, 50 percent or more women use antenatal care. The countries in Central Asia have the highest rates (over 90 percent) of women having seen a trained medical professional for at least one antenatal care visit. However in almost one-third of the 42 countries reporting on this indicator, 50 percent or fewer of women received at least one tetanus toxoid injection during their pregnancy for the most recent birth in the three years preceding the survey. A skilled attendant at delivery has a strong association with levels of maternal mortality. The lowest rates of use of a trained medical attendant at delivery are found in sub-Saharan Africa and South/Southeast Asia. In Central Asia, there is almost universal use of trained medical professionals for delivery. Yemen in North Africa/West Asia/Europe and Haiti in Latin America and the Caribbean have very low rates for their regions.

Messages to prevent HIV/AIDS are not effectively reaching women in most developing countries. Although the HIV/AIDS pandemic is taking a heavy toll on women, for the most part, less than 40 percent of women world-wide are aware of the ABC approach to prevention.

Environmental Context

The environmental context describes the external living conditions of women. Since the majority of women live in rural areas in much of the developing world, except for Latin America and the Caribbean, the potential impact of disparities in infrastructure between rural and urban areas and the extent of the lack of basic household amenities for women is great. Women bear most of the responsibility for child care, cooking, and household maintenance with few basic amenities to assist them. In most countries in sub-Saharan Africa (24 out of 25 countries) and South/Southeast Asia (3 out of 6 countries), the majority of women live in houses without electricity. Housing quality and lack of access to clean drinking water and toilet facilities have implications for women's health. Poor housing makes residents vulnerable to communicable diseases and respiratory problems. The type of flooring is indicative of the quality of the housing. Earthen floors (dirt, dung, or sand) are most prevalent in houses in sub-Saharan Africa (60 percent or more) and in Bangladesh and Nepal in South/Southeast Asia. Piped water is considered the safest drinking water, and women spend less time collecting and carrying water if it is piped. However, most women live in households that do not have access to piped drinking water in most countries in sub-Saharan Africa and South/Southeast Asia, and in Turkey and Yemen. In Central Asia and Latin America and the Caribbean, more than 20 percent of women live in households that do not have access to piped water, with the exception of Colombia. In 10 of 25 countries in sub-Saharan Africa and 3 of 5 countries in South/Southeast Asia, 50 percent or more of women lack access to toilet facilities. In Yemen, Bolivia and Haiti about 30 percent of women do not have access to any toilet facility.

In summary, behavior change policies and programs focusing on the individual are important to improve the health of women, but efforts at the social and environmental levels are also needed to effect improvements in women's health. Regions and countries within regions vary on individual indicators, but as a whole, sub-Saharan Africa, South/Southeast Asia, Yemen in North Africa/West Asia/Europe, and Haiti in Latin America and the Caribbean need priority attention. Central Asia exhibits acceptable results on most indicators except women's nutrition and contraceptive use. This report provides evidence across countries and regions for renewed advocacy and commitment to women's nutrition, education, and environmental living conditions, along with continued emphasis on improving maternal and reproductive health.

1

Introduction

This comparative report on the context of women's health is designed to be a resource for researchers, policymakers, and program managers, providing data on key indicators that influence the health and nutrition of women in the developing world. The findings are based on the results from Demographic and Health Surveys (DHS) conducted in 46 countries in five regions around the world: sub-Saharan Africa, North Africa/West Asia/Europe, Central Asia, South/Southeast Asia, and Latin America and the Caribbean (Table 1.1). Over the past 20 years, DHS surveys have been conducted in more than 70 countries around the world, and in some countries, two or more surveys have been conducted at intervals of three to six years. The United States Agency for International Development (USAID) has provided most of the funding for these surveys. Because of funding priorities, surveys are conducted in selected countries. Of the 46 countries included in this report, most are in sub-Saharan Africa (25), followed by Latin America and the Caribbean (8), South/Southeast Asia (6), North Africa/West Asia/Europe (4), and Central Asia. Since the data are not representative in all regions, this report can provide only limited comparisons within and across regions. The main purpose of this report is to provide a comparative update on key indicators that reflect the context of women's health and nutrition in regions of the developing world. Policies and programs can benefit from the data to identify areas in need of intervention, to monitor progress, and to compare the status of indicators for countries in the same region. This report is also useful for advocacy, demonstrating the need for further investments to improve the context of women's health.

Table 1.1 Summary of DHS surveys included in this report, 1994-2001

Country	Year	Female respondents	Number of women	Household sample size
Sub-Saharan Africa				
Benin	1996	All women	5,491	4,499
Burkina Faso	1998-99	All women	6,445	4,812
Cameroon	1998	All women	5,501	4,697
Central African Republic	1994-95	All women	5,884	5,551
Chad	1996-97	All women	7,454	6,840
Comoros	1996	All women	3,050	2,252
Côte d'Ivoire	1994	All women	8,099	5,935
Eritrea	1995	All women	5,054	5,469
Ethiopia	2000	All women	15,367	14,072
Gabon	2000	All women	6,183	6,203
Ghana	1998	All women	4,843	6,003
Guinea	1999	All women	6,753	5,090
Kenya	1998	All women	7,881	8,380
Madagascar	1997	All women	7,060	7,171
Malawi	2000	All women	13,220	14,213
Mali	1995-96	All women	9,704	8,716
Mozambique	1997	All women	8,779	9,282
Namibia	2000	All women	6,755	6,392
Niger	1998	All women	7,577	5,928
Rwanda	2000	All women	10,421	9,696
Tanzania	1996	All women	8,120	7,969
Togo	1998	All women	8,569	7,517
Uganda	2000-01	All women	7,246	7,885
Zambia	1996	All women	8,021	7,286
Zimbabwe	1999	All women	4,201	4,107
North Africa/West Asia/ Europe				
Egypt	2000	Ever-married women	15,573	16,957
Jordan	1997	Ever-married women	5,548	7,335
Turkey	1998	Ever-married women	8,576	8,059
Yemen	1997	Ever-married women	10,414	10,701
Central Asia				
Kazakhstan	1999	All women	4,800	5,844
Kyrgyz Republic	1997	All women	3,848	3,672
Uzbekistan	1996	All women	4,415	3,703
South/Southeast Asia				
Bangladesh	1999-2000	Ever-married women	10,544	9,854
Cambodia	2000	All women	15,351	12,236
India	1998-99	Ever-married women	90,303	92,486
Indonesia	1997	Ever-married women	28,810	34,255
Nepal	1996	Ever-married women	8,429	8,082
Philippines	1998	All women	13,983	12,407
Latin America/Caribbean				
Bolivia	1998	All women	11,187	12,109
Brazil	1996	All women	12,612	13,283
Colombia	1995	All women	11,140	10,112
Dominican Republic	1996	All women	8,422	8,831
Guatemala	1995	All women	12,403	11,754
Haiti	2000	All women	10,159	9,595
Nicaragua	1998	All women	13,634	11,528
Peru	2000	All women	27,843	28,900

Note: The Indonesia and Jordan data are based on de jure populations.

2

Background

The circumstances of women's lives are important to their health and well-being and should be included in any discussion of maternal health. Although men, women, and children in developing countries live under socioeconomic conditions that are associated with ill health—and improvements in these conditions are overdue—this report focuses on the social, behavioral, and environmental context of women's health. In the developing world, most women of reproductive age are also mothers; therefore, the terms "women's health" and "maternal health" are used interchangeably. Women's health in developing countries typically implies reproductive health as well as a woman's capacity to produce and take care of children. As a result, efforts primarily focus analytically and programmatically on indicators of reproductive health, child health, and, more recently, maternal health. However, in this report, a broader discussion of the context of maternal health is being made.

On the basis of DHS findings, three key indicators—maternal mortality, maternal nutritional status, and low birth weight—are used as outcome variables to describe the overall health status and condition of mothers in developing countries. Because of the limited range of indictors of women's health, maternal mortality dominates as a key indicator. At the same time, however, more women survive childbirth but continue to live with morbidities that are not measured. It is for this reason that it is important to explore the context of women's lives.

Many factors have been found to be determinants of women's nutritional status and health. Some of these factors are dietary intake, illness, early and frequent childbearing, strenuous work or physical activity, and women's status (Leslie, 1991; Tinker, 2000).

Area of residence, economic status of the household, antenatal care, and use of health services have also been associated with maternal nutritional status (Rutstein et al., 1999:65) as well as a woman's education level and her work status (Rutstein, 1996)

Social, behavioral, and environmental factors are important in their potential to interact with or mediate direct determinants of maternal health. Using DHS data, it is possible to measure factors at all three levels (social, behavioral, and environmental), along with three key indicators of maternal health (maternal mortality, maternal nutritional status, and low birth weight.

3

Methodology

In each country, information is collected at the level of the household and the individual. At the household level, information is collected on basic characteristics of household members, structure of the dwelling, anthropometric measurements of women age 15-49 years and children age 0-3 or 0-5 years), anemia testing of women and children (in selected countries), testing of household salt for level of iodization, source of drinking water, and availability of sanitation facilities, among others. The Women's Questionnaire collects information on fertility, nuptiality, fertility preferences, family planning, infant and child mortality, maternal mortality, maternal and child health, infant and young child feeding practices, and knowledge and attitudes about sexually transmitted diseases and HIV/AIDS.

This report is based upon data from 46 DHS surveys conducted from 1994 through 2001. Of these, 43 included anthropometric measurements of women. Data were not always collected on all variables in every country. Nevertheless, this report provides descriptive data on most of the key indicators regarding the context of women's health and nutrition. Since there is variation in the availability amd accessibility of health services, urban-rural differentials are included in the discussion of utilization of antenatal and delivery care services.

3.1 Sample of Women

The sample is composed of women age 15 to 49. It reflects all women in this age group, regardless of marital status, in sub-Saharan Africa, Central Asia, Latin America and the Caribbean, and Cambodia and the Philippines in South/Southeast Asia. An ever-married sample of women was surveyed in North Africa/West Asia/Europe and in Bangladesh, India, Indonesia, and Nepal in South/Southeast Asia. To maintain comparability of health and nutritional indicators, this report uses a sample of mothers with children under three years of age. Unless otherwise indicated, women age 15-49 are used for all other indicators. Sample sizes of women range from 3,050 in Comoros to 90,303 in India. The average sample size is about 9,500 women.

3.2 Indicators for Defining the Context of the Health of Mothers

In this report, maternal health refers to the health and nutritional status of women who had a child age 0-3 years at the time of the survey; the context of women's health includes all women. DHS collects data on three key indicators that are used to describe the status of women's health, maternal mortality, maternal nutritional status, and low birth weight. Two of these indicators are measured directly: maternal mortality is measured using the sisterhood method and nutritional status is measured using anthropometry and anemia testing. The percentage of mothers with low birth weight infants is a proxy measure of maternal health.

Maternal mortality is an outcome measure not only of the health status of women who died as a result of the childbirth process but also of the ability of the health care system to reach women with complications and provide emergency obstetrical care. Low birth weight in infants is used as a proxy measure of women's health in developing countries because it is influenced directly by the mother's health and nutritional status (ACC/SCN, 2000).

Nutritional status is based on anthropometric and micronutrient indicators. Anthropometric measurements of height and weight are used to determine women's height and body mass index (BMI). Women

are weighed on a digital scale, and their weight is recorded in kilograms, to the nearest 100 grams. Height is measured using an anthropometer with standard gradations, and is recorded to the nearest millimeter. The assessment of nutritional status in nonpregnant women is based on normative distributions. Commonly used anthropometric references for adult women are averages based on healthy populations (Krasovec and Anderson, 1991).

Micronutrient status is assessed for anemia (hemoglobin testing) and vitamin A deficiency (based on a woman's reported experience of night blindness during the pregnancy), and programmatic coverage is assessed for iron supplementation and vitamin A supplementation, and cooking salt is tested for iodine fortification.

The context of maternal health is defined by social, behavioral, and environmental indicators that are collected by the Household Questionnaire and the Women's Questionnaire. Social factors measured are education, media exposure, employment, marital status, and female-headed households. Behavioral factors measured are fertility practices, breastfeeding practices, child spacing and family planning practices, antenatal care practices, delivery care practices, and awareness of HIV/AIDS. Environmental factors measured arfe urban-rural residence and lack of household amenities: electricity, finished flooring, clean water, and adequate sanitation.

A detailed list of the indicators included in this report and their area of influence is given in Table 3.1.

Table 3.1 List of indicators used in this analysis

Indicators	Women's health and nutrition	Context of women's health: Social context	Context of women's health: Behavioral context	Context of women's health: Environmental context
OUTCOME MEASURES OF WOMEN'S HEALTH				
Maternal mortality ratio	*			
Anthropometry				
Short stature (< 145 cm)	*			
Chronic Energy Deficiency (BMI < 18.5)	*			
Overweight and obesity (BMI ≥ 25)	*			
Micronutrients				
Anemia prevalence	*			
Iron supplementation	*			
Night blindness in pregnancy	*			
Vitamin A supplementation	*			
Household use of iodized salt	*			
Low birth weight	*			
SOCIAL FACTORS				
Education				
School attendance		*		
Attendance ratio of girls to boys		*		
Female illiteracy		*		
Media exposure				
Radio listening		*		
Newspaper reading		*		
TV viewing		*		
Employment				
Working women		*		
Work in agriculture		*		
Marital status				
Currently married and cohabitating		*		
Not currently married		*		
Never married		*		
Polygynous marriage		*		
Female-headed household		*		
BEHAVIORAL FACTORS				
Fertility practices				
Median age at first marriage			*	
Median age at first intercourse			*	
Median age at first birth			*	
Total fertility rate			*	
Wanted fertility rate			*	
Mean duration of childbearing period			*	
Breastfeeding behaviors				
Exclusive breastfeeding (< 6 months)			*	
Median duration of breastfeeding			*	
Child spacing and family planning				
Median duration of postpartum amenorrhea			*	
Median duration of postpartum abstinence			*	
Median duration of postpartum susceptibility			*	
Current use of contraception			*	
Unmet need for contraception			*	
Utilization of health care services				
Antenatal care				
Use of health professional			*	
4+ visits			*	
Urban-rural differentials			*	
Tetanus toxoid			*	
Delivery care				
Urban-rural differentials in use of health professionals			*	
HIV/AIDS awareness				
Knowledge of preventive measures			*	
ENVIRONMENTAL FACTORS				
Residence				
Rural area residence				*
Household amenities				
Electricity				*
Earthen floor				*
Piped drinking water				*
Sanitation facilities				*

4

Findings

4.1 Women's Health

4.1.1 Maternal Mortality

The level of maternal mortality in a population is an indicator not only of the status of the population but also the level of national development. Maternal deaths in most developing countries account for a high proportion of all causes of death among women of reproductive age. However, few countries have comprehensive vital registration systems that are capable of accurately capturing and reporting maternal deaths. Underreporting may be significant, since many deaths occur outside of the health system. Therefore, national household surveys like DHS surveys are used to estimate the level of maternal mortality. Since maternal deaths are relatively rare events, large sample sizes are needed for precise estimates.

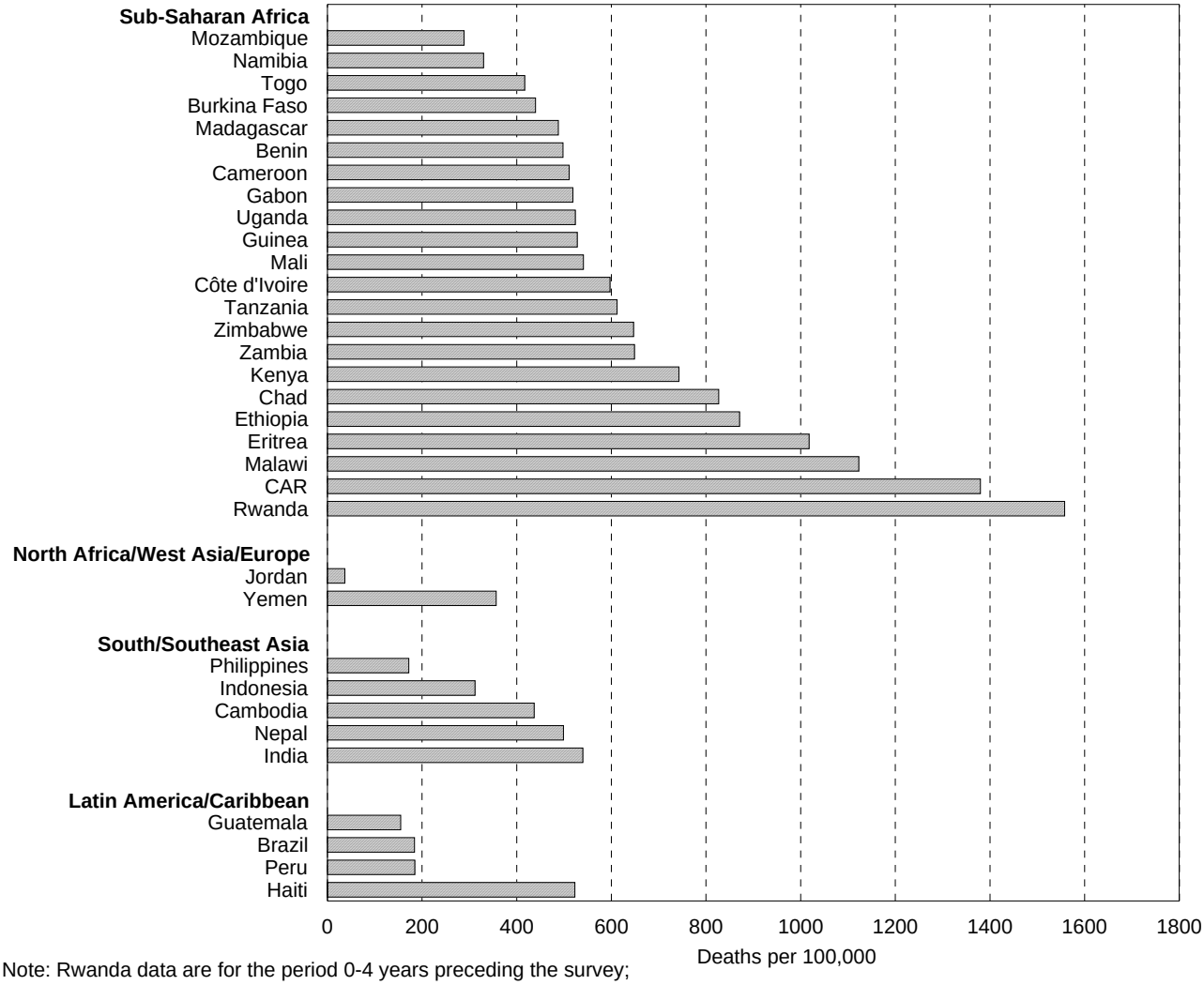
In DHS surveys, a maternal death is defined as any death that occurs during pregnancy, during childbirth, or during the two months following the birth or the termination of the pregnancy. In this report, the maternal mortality ratio (MMR) is used to report on the rates of maternal deaths for the seven-year period preceding the survey. The MMR is estimated from data on the survivorship of sisters of survey respondents collected in the sibling history (Rutenberg and Sullivan, 1991). The sibling history is a detailed account of survivorship of all live-born children of the respondent's biological mother (i.e., maternal siblings). These data allow deaths and births to be placed in calendar time and therefore permit the calculation of sex- and age-specific death rates for defined reference periods. (An in-depth discussion of maternal mortality indicators and data quality can be found in Stanton, Abderrahim, and Hill (1997).

Maternal mortality data were not collected in 11 of the 46 countries included in this report. In two countries, Rwanda and India, MMR estimates are based on 4-year and 2-year reference periods, respectively. For all other countries, MMR estimates are based on a 7-year reference period.

The MMR varies widely among countries and between regions (Table A.4.1). The highest ratios are found in sub-Saharan Africa, where 16 of the 22 countries with reported data have ratios equal to or greater than 500 maternal deaths per 100,000 live births. In four countries in sub-Saharan Africa—Central African Republic (CAR), Eritrea, Malawi, and Rwanda—the rate is over 1,000 (Figure 4.1). For North Africa/West Asia/Europe, MMR data are available for only two countries—Jordan and Yemen. Jordan has the lowest rate (37) of all the countries included in Table A.4.1. In South/Southeast Asia, the rate ranges from 172 in the Philippines to 540 in India. In Latin America and the Caribbean, Haiti has a much higher rate (523) than the other countries (155 to 185).

Figure 4.1 Maternal Mortality Ratio

Maternal Mortality Ratio (deaths per 100,000 births) calculated as the maternal mortality rate divided by the general fertility rate, for the seven-year period preceding the survey, based on survivorship of sisters of survey respondents



Note: Rwanda data are for the period 0-4 years preceding the survey; India data are for the period 0-2 years preceding the survey.

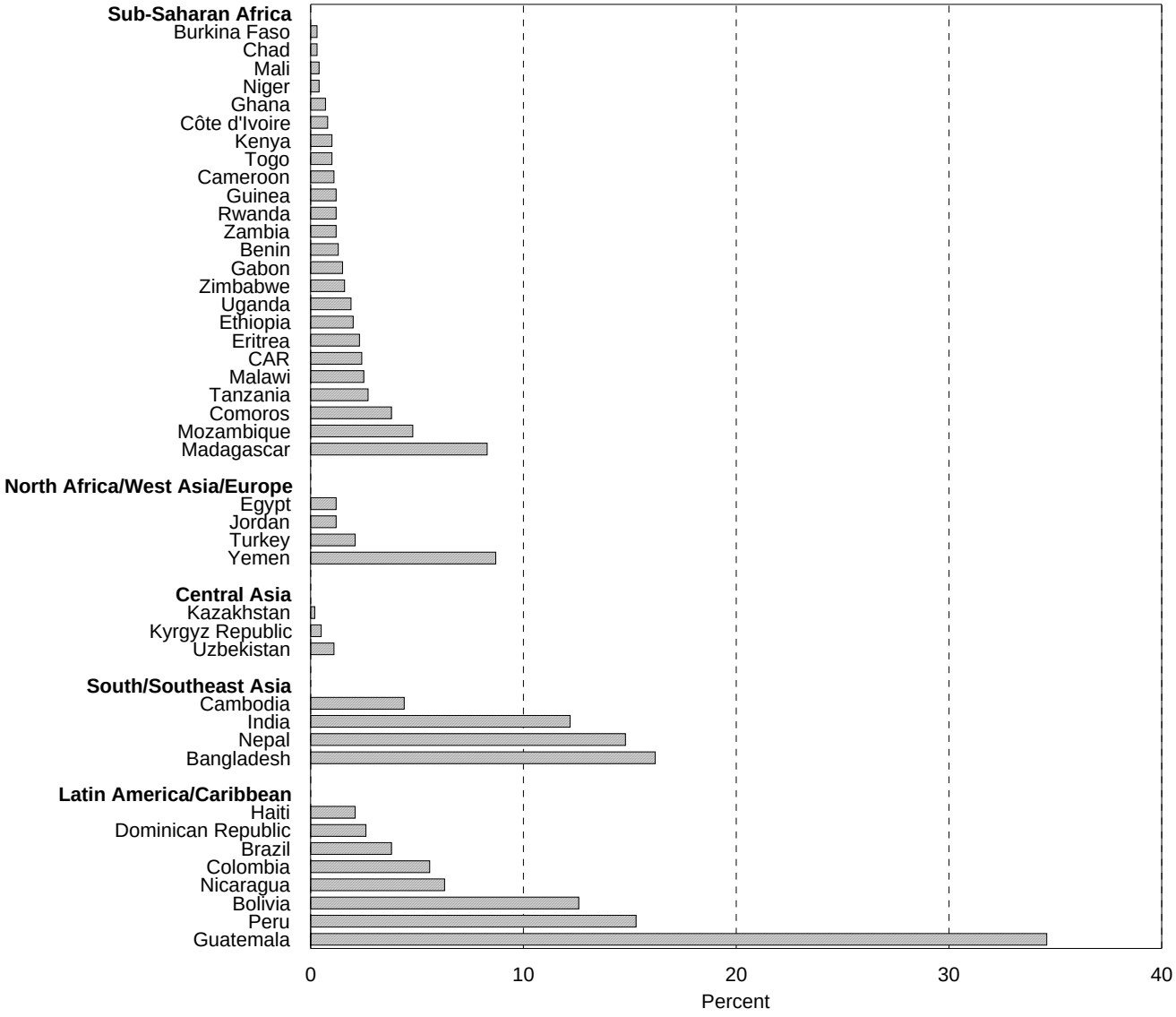
4.1.2 Maternal Nutritional Status

Malnutrition, either undernutrition or overnutrition, has implications for the health of women. Height is often used as an indicator of women's nutritional status. It can also be used to assess past nutritional status and reflect the cumulative effects of social and economic influences on access to adequate nutrition and health care during childhood and adolescence. In addition, height can predict a woman's risk of a difficult delivery. Short stature is correlated with higher risks of miscarriage, stillbirth, and delivery of low birth weight infants (Krasovec and Anderson, 1991).

To be consistent with the other maternal health indicators, analysis of anthropometric measurements is restricted to women who had a live birth in the three years preceding the survey (Table A.4.2). A woman is considered to be short if her height is less than 145 centimeters. South/Southeast Asia and Latin America and the Caribbean each have three countries in which more than 10 percent of women are less than 145 cm. Guatemala has, by far, the largest percentage (35 percent) of women who are less than 145 cm (Figure 4.2).

Figure 4.2 Short stature in women

Percentage of women age 15-49 with a birth in the three years preceding the survey whose height is less than 145 centimeters



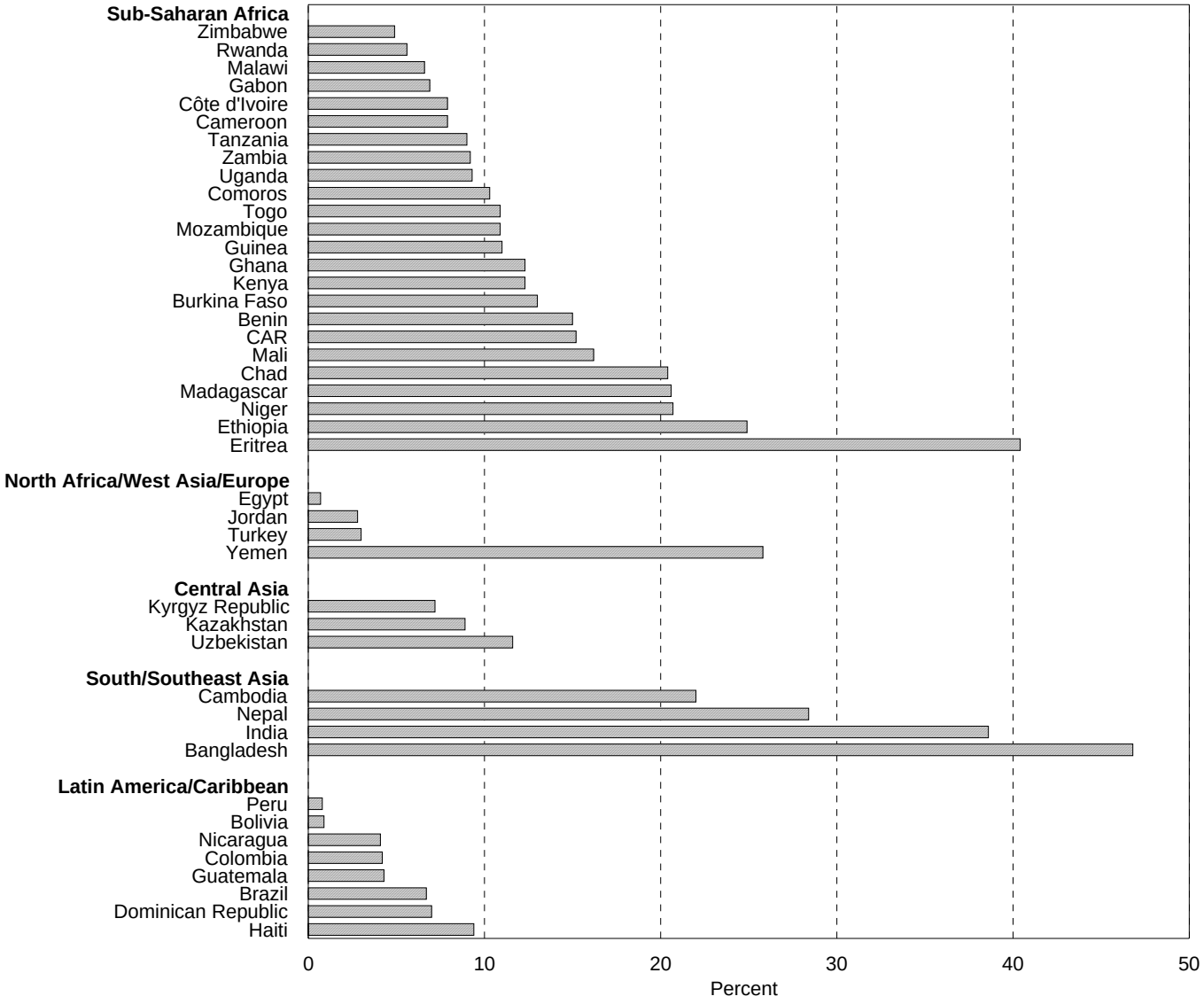
The body mass index (BMI) is a commonly used measure of women's nutritional status. BMI, a woman's weight in kilograms divided by the square of her height in meters (kg/m^2), incorporates both height and weight and provides a better measure of nutritional status than height or weight alone. Undernutrition in women is defined as a BMI of less than 18.5 and is classified as chronic energy deficiency (CED). The proportion of women who suffer from CED ranges from less than 1 percent in Egypt, Bolivia, and Peru to 47 percent in Bangladesh. South/Southeast Asia has the highest rates of CED, followed by sub-Saharan Africa. Yemen stands out in the North Africa/West Asia/Europe region, with 26 percent of women having a BMI of less than 18.5 (Table A.4.2 and Figure 4.3).

Nestel and Rutstein (2001) reported on a World Health Organization (WHO) categorization of the public health significance of low BMI (<18.5). They report that in a healthy population, 3 to 5 percent of the population are expected to have a low BMI. Nutritional monitoring is required if 5 to 9 percent have a low BMI. The nutritional situation is considered poor if 10 to 19 percent of the population has a low BMI. The nutritional situation is serious at 20 to 39 percent of the population, and if over 40 percent of

the population has a low BMI, it is critical. Of the 43 countries in this study with anthropometric data on women, 13 countries require nutritional monitoring, 11 countries are in a poor nutritional situation, eight countries are in a serious nutritional situation, and two countries are in a critical nutritional situation. The remaining nine countries have less than 5 percent of mothers with a low BMI.

Figure 4.3 Chronic energy deficiency (CED)

Percentage of women age 15-49 with a birth in the three years preceding the survey whose BMI is less than 18.5

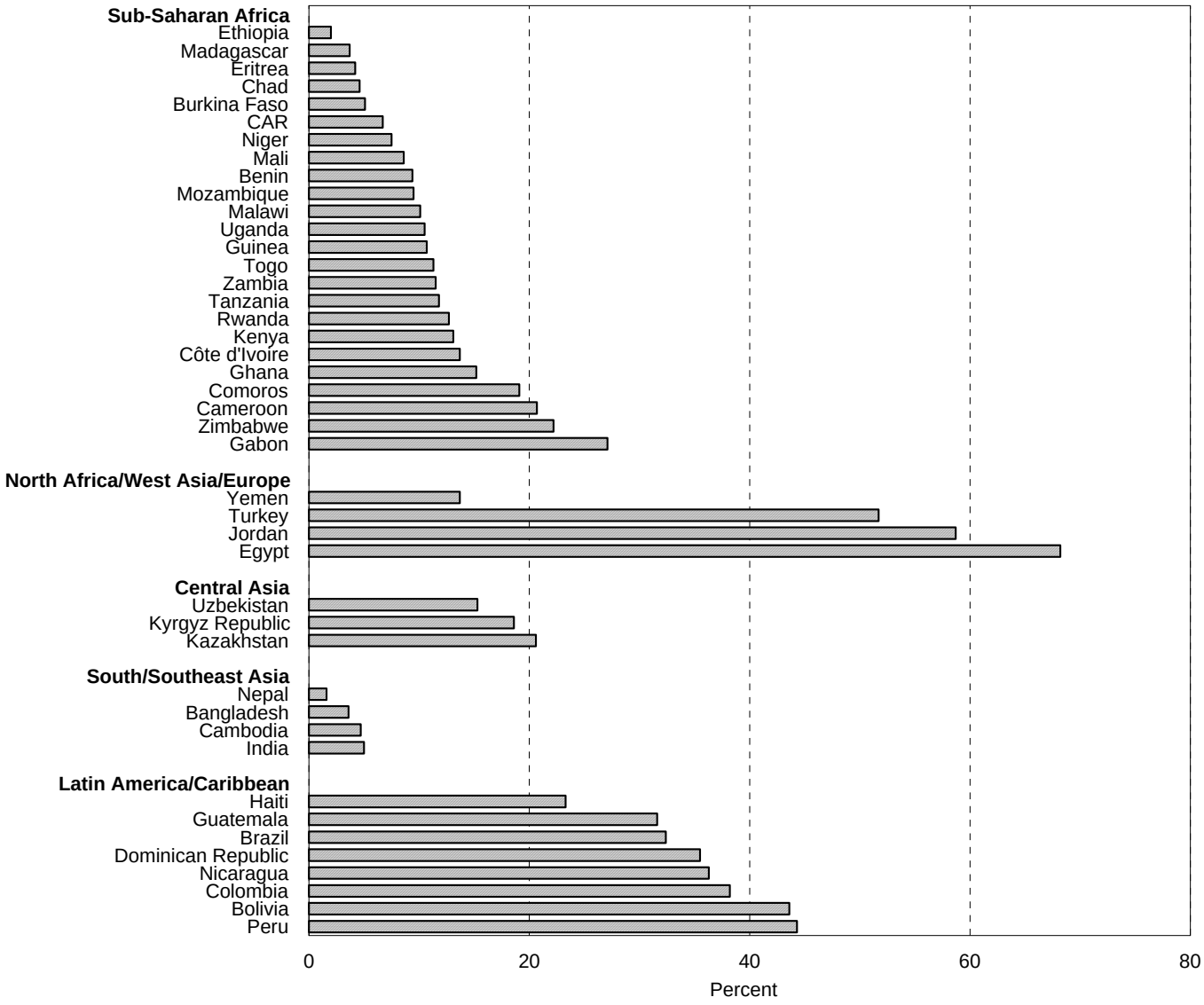


Regionally, of the 24 sub-Saharan countries, 10 have a poor nutritional situation, four countries have a serious nutritional situation, and one country (Eritrea) has a critical situation. North Africa/West Asia/Europe has only one country (Yemen) with a serious nutritional situation; the remaining three countries are within the normal range. Central Asia has one country (Uzbekistan) with a poor nutritional situation, and the remaining two just require monitoring. However, for the four South/Southeast Asia countries, the situation is either serious (Cambodia, India, and Nepal) or critical (Bangladesh). Five countries in Latin America and the Caribbean fall in the normal range, while three need only nutritional monitoring.

Overnutrition (BMI ≥25) also has implications for women's health, predisposing women to cardiovascular and other diseases. Obesity is not as prevalent in developing countries as it is in the developed countries. However, it is becoming a growing concern. In 15 of 24 sub-Saharan countries, the percentage of women with a high BMI ≥25 is about the same or greater than the percentage of women with low BMI <18.5. The North Africa/West Asia/Europe region is an exception; in three out of four countries, more than 50 percent of women are overweight or obese. Egypt has the highest proportion of overweight or obese women (68 percent) among all the countries included in Table A.4.2. The prevalence of overweight and obesity is also substantial in the Latin America and the Caribbean region, where, on average, 36 percent of women are overweight or obese (Figure 4.4).

Figure 4.4 Overweight in women

Percentage of women age 15-49 with a birth in the three years preceding the survey whose BMI is greater than or equal to 25



4.1.3 Micronutrient Status, Supplementation, and Fortification

Women in developing countries are undernourished not only because of low intake of protein and calories but also because of limited intake or bioavailability of micronutrients from animal products, fruits, vegetables, and fortified foods. Chronic energy deficiency (CED) and short stature in women result from early malnutrition during fetal development, infancy, and childhood, and these conditions continue because of poor intake in adulthood. Micronutrient deficiencies are a result of inadequate intake of foods rich in micronutrients and inadequate utilization of available micronutrients because of infections and parasitic infestations or other factors related to diet. Although stunting cannot be remedied in adulthood, reversal of micronutrient deficiencies is possible (Huffman et al., 1998).

The major micronutrient deficiencies of concern regarding women in developing countries are iron, vitamin A, and iodine. In DHS surveys, data are collected on micronutrient status (anemia), micronutrient supplementation (iron and vitamin A), and micronutrient fortification (iodized or iodated household cooking salt).

4.1.3.1 Anemia

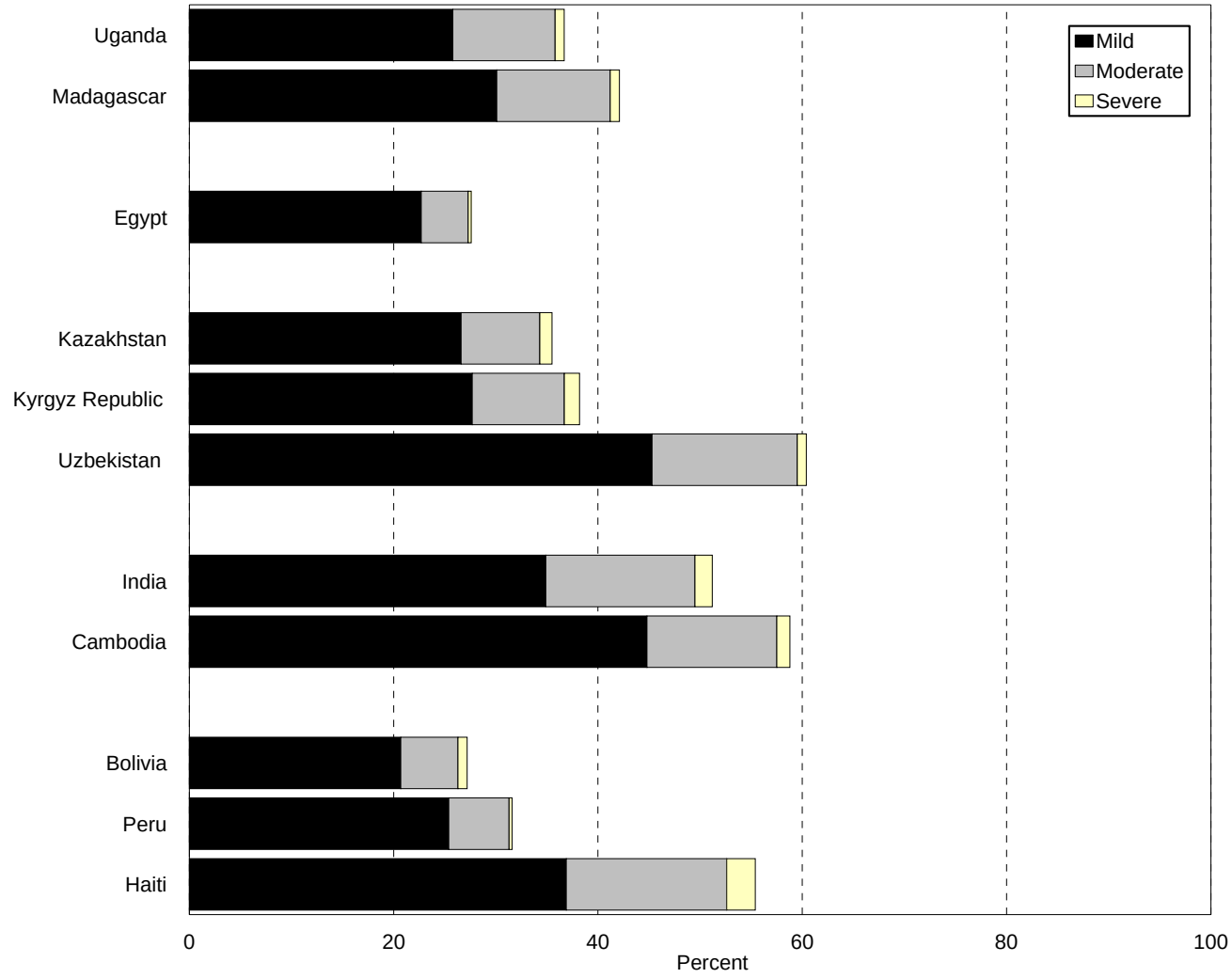
Iron-deficiency anemia is the most common form of nutritional deficiency worldwide. This type of nutritional deficiency develops slowly and often does not manifest symptoms until anemia becomes severe. The cutoff points for anemia are 11.0 grams per deciliter (g/dl) of hemoglobin for pregnant women and 12.0 g/dl for nonpregnant women. Women with less than 7.0 g/dl of hemoglobin have severe anemia, women with 7.0 to 9.9 g/dl have moderate anemia, and pregnant women with 10.0 to 10.9 g/dl and nonpregnant women with 10.0 to 11.9 g/dl have mild anemia.

Diets that are heavily dependent on one grain or starch as the major staple often lack sufficient iron. Iron is found in meats, poultry, fish, grains, some cereals, and dark green leafy vegetables (such as spinach). Foods rich in vitamin C increase absorption of iron into the blood. Tea, coffee, and whole-grain cereals can inhibit iron absorption. Anemia in women is caused by several different health conditions; iron and folate deficiencies are some of the most prevalent conditions. Malaria and parasite infestation also cause anemia. Iron-deficiency anemia is related to decreased work and mental capacity and is associated with poor pregnancy outcomes including low birth weight, perinatal mortality, and maternal mortality (WHO/UNU/UNICEF, 2001).

Beginning in early adolescence, girls' nutritional needs increase with the growth spurt in puberty and the onset of menstruation. Iron-deficiency anemia is a problem that begins in adolescence and continues through menopause (WHO/UNU/UNICEF, 2001). At the initial drafting of this report, anemia data were available for 11 countries (Table A.4.3). So that these data can be compared, the analysis is based on women who had a birth in the three years preceding the survey. The preliminary results of hemoglobin testing of women confirm a high prevalence of anemia in women age 15-49 (25 percent or more). The prevalence of any anemia ranges from a low of 27 percent in Bolivia and 28 percent in Egypt to 60 percent in Uzbekistan. In Uzbekistan, Cambodia, Haiti, and India, more than 50 percent of women are anemic. The prevalence of moderate to severe anemia is also substantial in these countries. For example, in Haiti, 16 percent of women are moderately anemic and another 3 percent are severely anemic. When more than 2 percent of women have severe anemia, it is a major public health problem in need of long-term intervention (Stoltzfus and Dreyfuss, 1998) (Figure 4.5).

Figure 4.5 Anemia in women

Percentage of women age 15-49 with a birth in the three years preceding the survey who have anemia



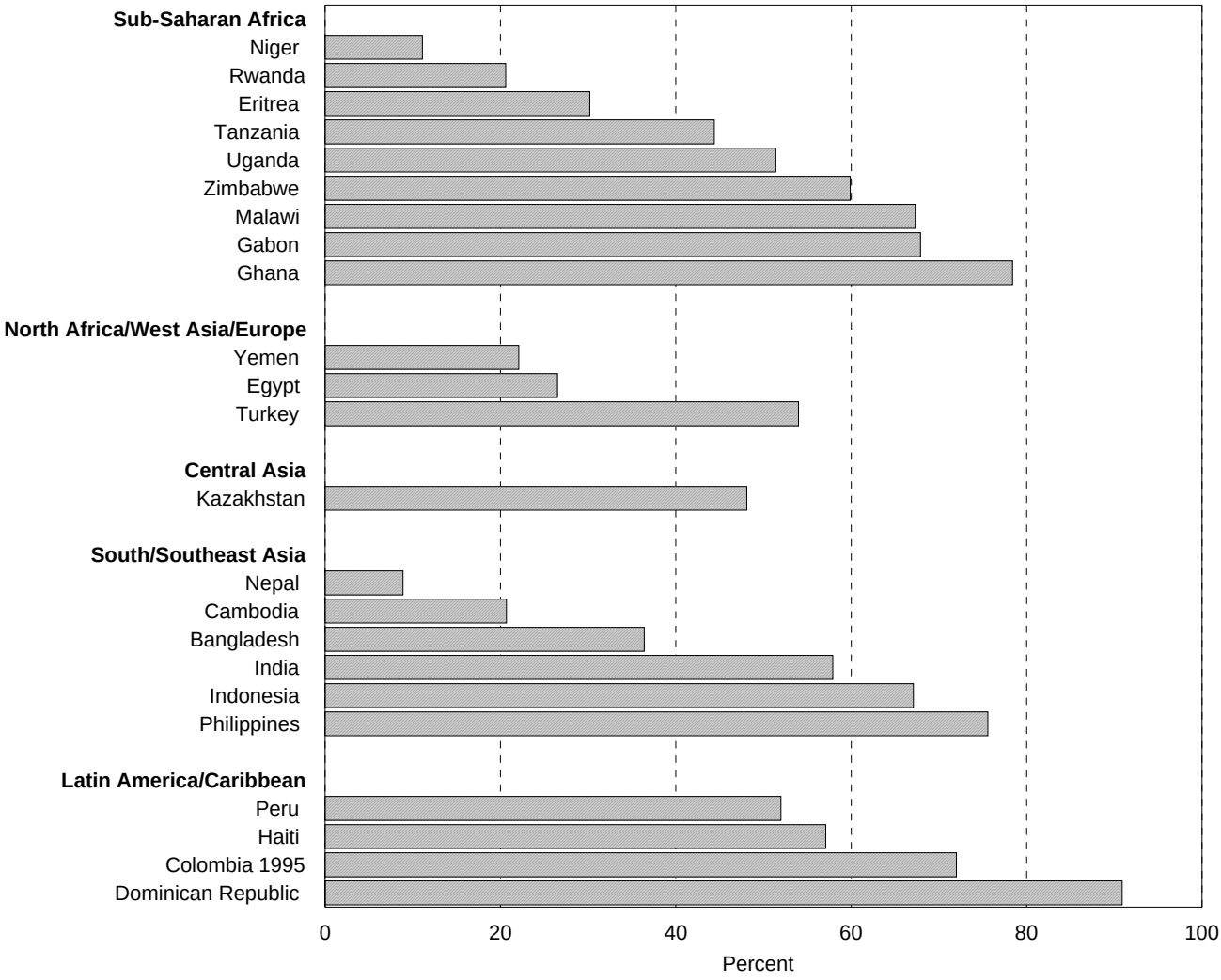
Note: Anemia levels in Uganda are based on women with a birth in the three years preceding the survey; anemia levels in India are based on ever-married women.

The high physiological demand for iron in pregnancy is hard to meet through dietary intake of iron-rich foods alone. Therefore, it is recommended that pregnant women routinely receive iron supplements for at least three months during pregnancy. Iron supplementation in pregnancy has been shown to improve birth outcomes (low birth weight and perinatal mortality) and maternal morbidity and mortality. Iron supplementation data are available for 23 countries (Table A.4.3 and Figure 4.6). The data reflect mothers reporting that they received or purchased iron tablets or syrups during the pregnancy of their last birth in the three years preceding the survey.

The proportion of women who received iron supplementation during pregnancy ranges from a low of 9 percent in Nepal to a high of 91 percent in the Dominican Republic. In five of the nine countries with data in sub-Saharan Africa, over 50 percent of women reported that they received iron supplementation. However, in the North Africa/West Asia/Europe region, only in Turkey did over 50 percent of women report having received iron supplementation. In Latin America and the Caribbean, all four countries have rates over 50 percent. In South/Southeast Asia, three of the six countries have iron supplementation rates over 50 percent.

Figure 4.6 Iron supplementation during pregnancy

Percentage of women age 15-49 with a birth in the three years preceding the survey who received any iron supplementation during their most recent pregnancy



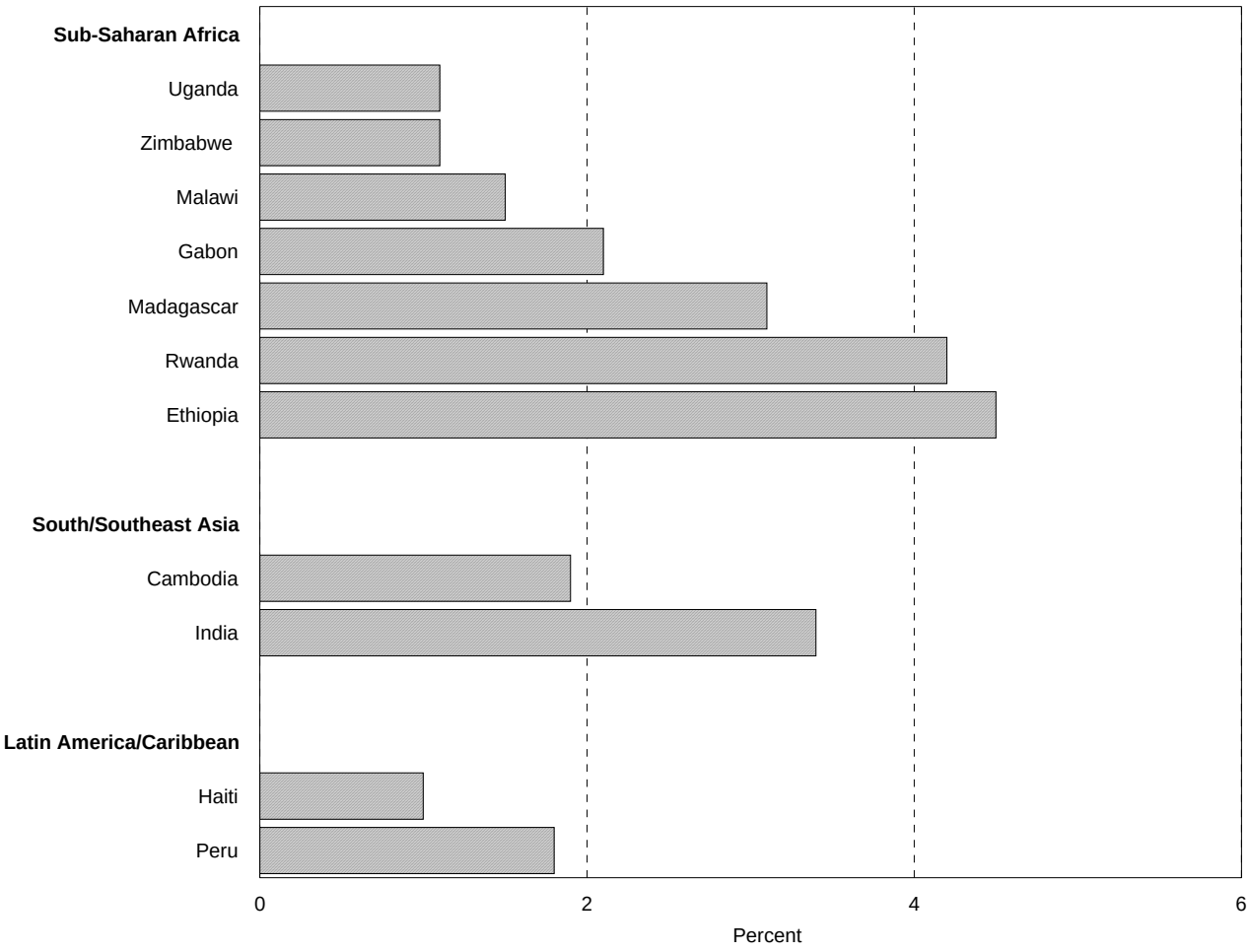
4.1.3.2 Vitamin A

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the body's epithelial tissue. Severe vitamin A deficiency (VAD) can cause eye damage (xerophthalmia) leading to blindness. Severe VAD can also increase the severity of infections and slow recovery from illness.

Night blindness is an indicator of severe VAD, and pregnant women are especially prone to this condition. In DHS surveys, women are asked whether they had difficulty with their vision during daylight and whether they also suffered from night blindness during their last pregnancy. In areas where there are local terms for night blindness, the local term is used. Table A.4.4 shows the rate of night blindness and the adjusted night blindness rate (less those with day vision problems) for 12 countries. (The Nepal survey did not ask about day vision problems and is excluded from Figure 4.7). Of the data available, Ethiopia has the highest adjusted rate of reported night blindness (slightly less than 5 percent). Proportions of 5 percent or greater are considered a significant public health concern (Christian, 2002).

Figure 4.7 Night blindness in pregnancy

Percentage of women age 15-49 with a birth in the three years preceding the survey who experienced night blindness during their most recent pregnancy (adjusted rates)

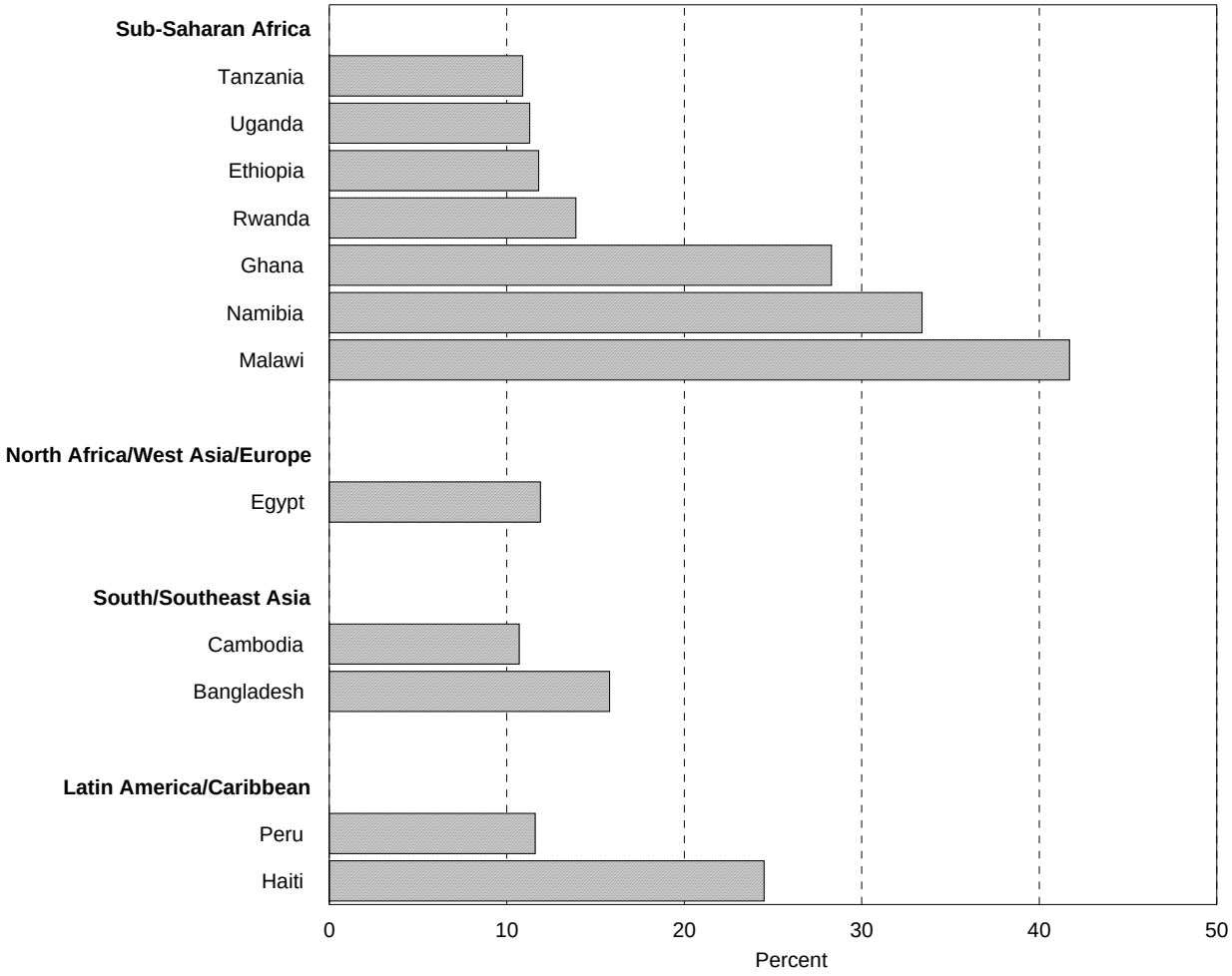


VAD can be prevented in women through the provision of a high-dose (200,000 IU) vitamin A capsule in the first six to eight weeks after delivery (when women are considered not at risk of pregnancy). High doses of vitamin A cannot be given to pregnant women because of the possible adverse effects (birth defects).

Data on vitamin A supplementation during the two months following the most recent birth are available for 12 countries in Table A.4.4. Although the Gabon survey had information on night blindness, it did not include questions about vitamin A supplementation. On the other hand, Ghana did not include information on night blindness, but it has information on vitamin A supplementation. Figure 4.8 shows that of the countries reporting, no more than 42 percent of women received vitamin A in any country. In 6 of the 12 countries, only about 11 percent of women received postpartum vitamin A supplementation.

Figure 4.8 Vitamin A supplementation

Percentage of women age 15-49 with a birth in the three years preceding the survey who received a vitamin A dose in the two months following of their most recent birth



4.1.3.3 Iodine

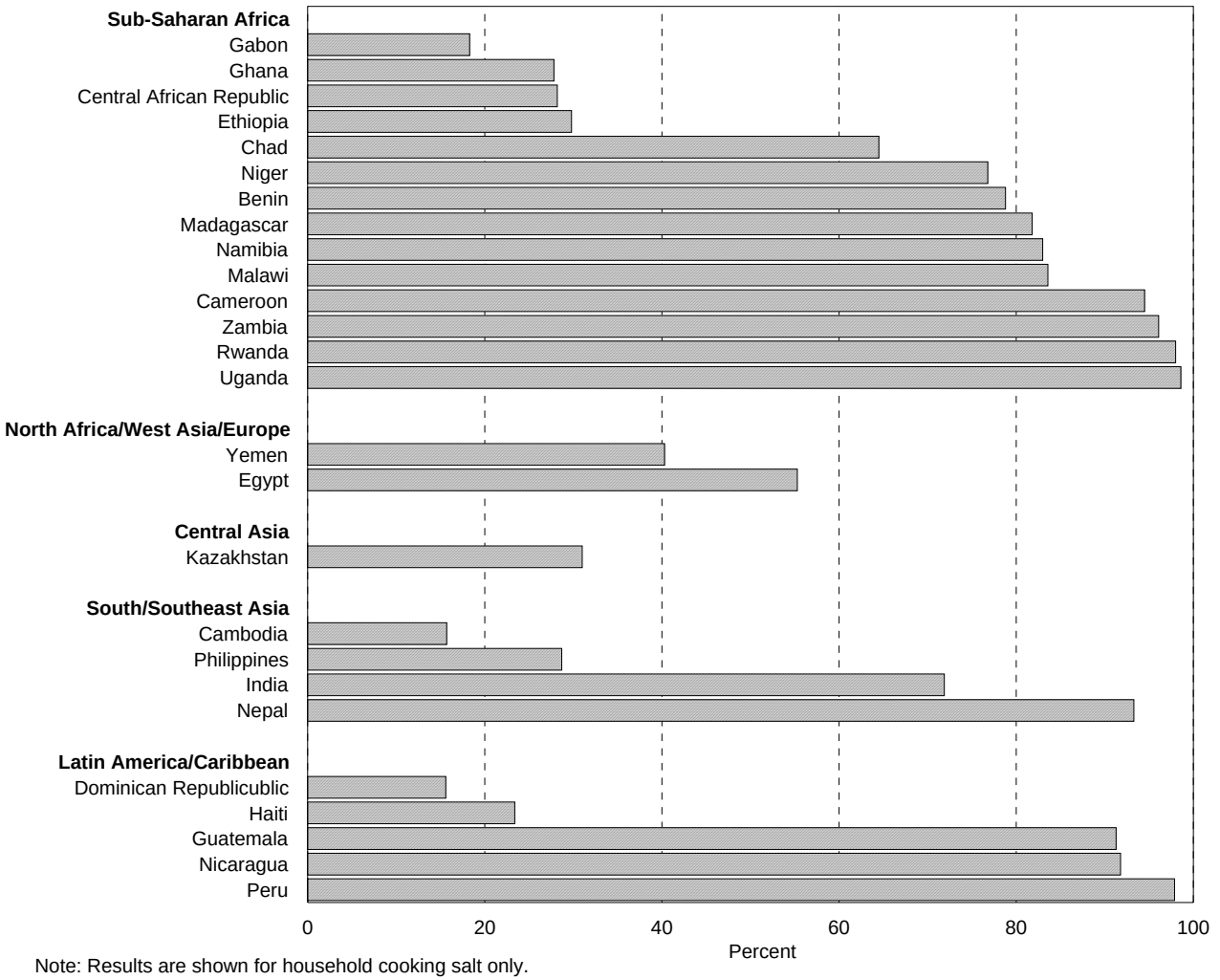
Dietary deficiency of iodine is a major public health concern. The lack of sufficient iodine is known to cause goiter, cretinism (a severe form of neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. Iodine-deficiency disorder (IDD) is the single most common cause of preventable mental retardation and brain damage.

The human body requires only about a teaspoon of iodine over a lifetime. However, because iodine cannot be stored for long periods by the body, tiny amounts are needed regularly for good health. Where soil and therefore crops and grazing animals do not provide sufficient dietary iodine to the population, food fortification and supplementation have proven to be highly successful and sustainable interventions. The fortification of salt with iodine is the most common means of preventing IDD. Fortified salt that contains 15 parts per million (ppm) of iodine is considered adequate for the prevention of IDD.

In DHS surveys, the iodine content of household salt is tested using a rapid test kit provided by UNICEF (World Health Organization et al., 2001). Because of the early nonstandardization of cutoff points for adequately iodized salt, the data on testing of household salt are comparable only at the level of *any positive reading* for iodine. This could be 15 ppm or more. More recent DHS surveys use 15 ppm as the accepted cutoff point.

The results of testing household cooking salt are available for 27 of the 46 countries (Table A.4.4). In nine countries, salt packets were read for iodine content. The international cutoff for adequate national coverage requires that 90 percent of households use adequately iodized salt. In 10 of the 27 countries where salt was tested, less than one-third of the women lived in households using salt with some level of iodization. Of the 15 countries in sub-Saharan Africa where salt was tested, only four had over 90 percent of women living in households with iodized salt. In another five countries in sub-Saharan Africa, between 75 and 90 percent of women live in households using iodized salt. In the two countries in the North Africa/West Asia/Europe region with household salt tested, the rates were low. Although in Jordan, where salt packets were read, the proportion was 96 percent. In contrast, Central Asia has low coverage for iodized salt. In the South/Southeast Asia region, only Nepal has over 90 percent coverage. Three of the five countries in Latin America and the Caribbean with household salt tested have over 90 percent coverage (Figure 4.9).

Figure 4.9 Iodized salt
Percentage of women age 15-49 who live in households with iodized salt



Note: Results are shown for household cooking salt only.
Countries where salt packets were read are not shown.

4.1.4 Low Birth Weight

Low birth weight in infants is a significant public health problem in developing countries. Low birth weight is primarily caused by inadequate maternal health and nutrition. Poor nutritional status prior to conception (short stature), as a result of chronic undernutrition and illnesses in childhood, and poor nutrition and illness during pregnancy are significant influences. Other influences on birth weight include malaria, anemia, and acute and chronic infections (ACC/SCN, 2000). Low birth weight influences the future nutritional status of children; therefore, women's health begins in the womb. In many developing countries, girls born with low birth weight tend to experience poor growth during childhood and adolescence, and this results in their giving birth to low birth weight infants (Ramakrishnan, 2004; Ramakrishnan et al., 1999). Improving preconceptual nutritional status of women is important for improving birth outcomes.

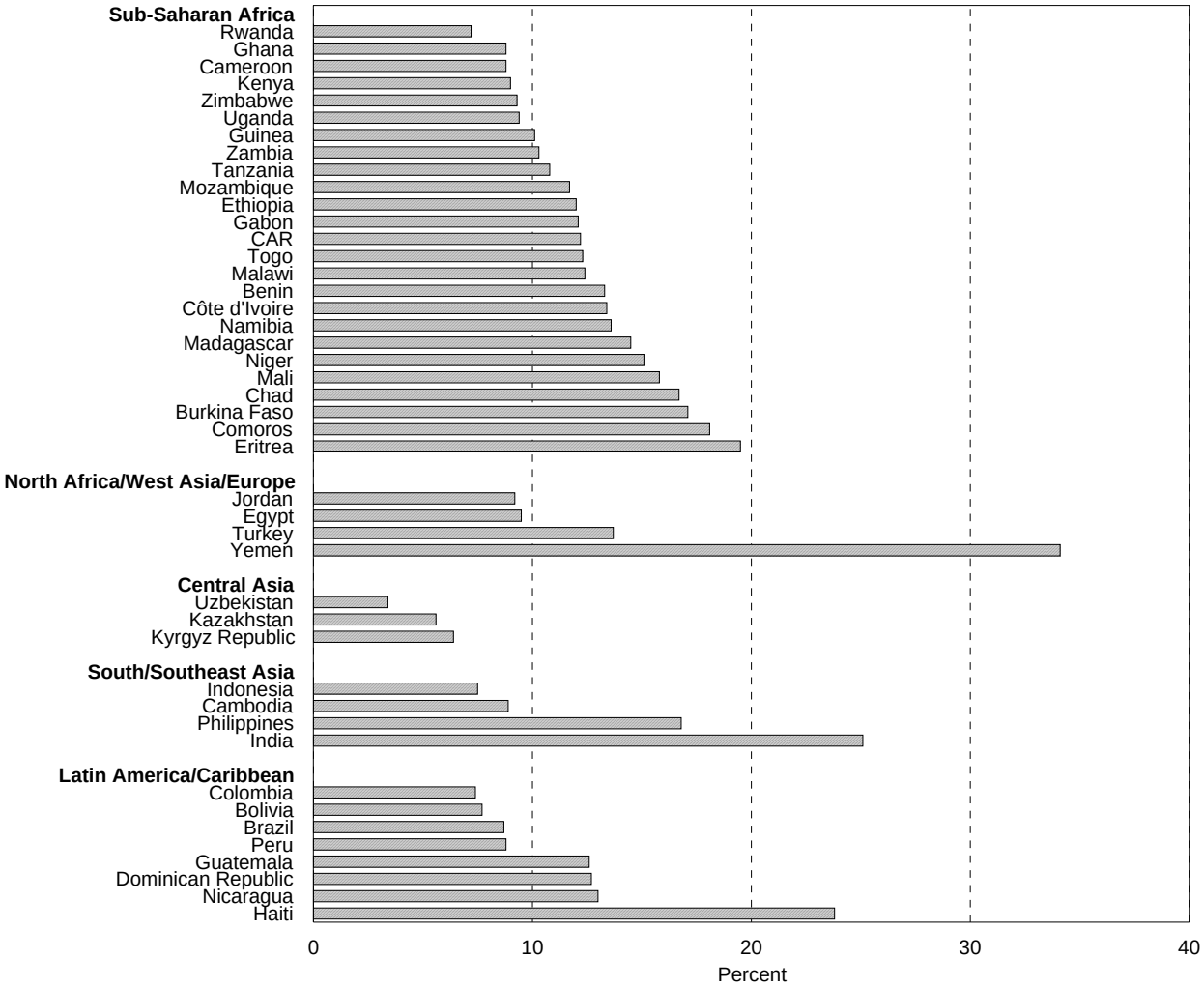
To obtain birth weight data, the DHS surveys asked mothers whether their baby was weighed at birth and, if so, how much the baby weighed. Babies weighing 2.5 kg or more are considered to have a normal birth weight, and babies weighing less than 2.5 kg are regarded as small or as having low birth weight. In many developing countries, large proportions of births do not occur in health facilities and therefore babies are not weighed. Mothers were also asked whether the baby was very large, larger than average, average, smaller than average, or very small at birth.

Table A.4.5 shows the percentage of women who have a recorded birth weight of less than 2.5 kg for their most recent live birth in the three years preceding the survey. For those children without a recorded birth weight, the proportion with low birth weight is assumed to be the same as the proportion among children who have a recorded low birth weight, in each of the categories of mother's perceived birth size (i.e., very large, larger than average, average, smaller than average or very small at birth). For example, if 2 percent of babies whose mothers perceived them to be larger than average at birth had a recorded birth weight of <2.5 kg, then 2 percent of babies without a recorded birth weight, whose mothers perceived them to be larger than average at birth, are included in the low birth weight category.

The proportion of women with low birth weight children ranges from a low of 3 percent in Uzbekistan to a high of 34 percent in Yemen. Overall, 27 of the 44 countries with available birth weight data have more than 10 percent of mothers delivering low birth weight babies (Figure 4.10). These rates are higher than the 1990 World Summit for Children goal of less than 10 percent. Central Asian countries are all below 10 percent. On the high side, there are three countries with rates higher than 20 percent (India, Haiti, and Yemen). Improvements in low birth weight can be expected when improvements are made in food security, maternal nutritional status, and increased access to antenatal care (Ramakrishnan, 2004).

Figure 4.10 Low birth weight

Percentage of live births in the three years preceding the survey that weighed less than 2.5 kg or were estimated to be low birth weight based on projected proportions from mothers' perceptions of birth size



4.2 Context of Women's Health

For a discussion of women's health, this analysis explores three key contexts: social, behavioral, and environmental. The social context is represented by five indicators: education, exposure to media, employment, marital status, and female-headed households. These indicators provide insights into the social status of women, their potential access to productive resources, and influences on their overall well-being. The behavioral context includes the important fertility-related behaviors that can have a profound impact on maternal health. These include fertility practices (median age at first intercourse, median age at first marriage, median age at first birth, total fertility rate and wanted fertility rate, and duration of the childbearing period); breastfeeding practices (exclusive breastfeeding and median duration of breast-feeding); child spacing and family planning (median duration of postpartum amenorrhea, median duration of postpartum abstinence, median duration of postpartum insusceptibility, use of contraception, and unmet need for contraception); and utilization of health care services, including antenatal care (use of health professionals, four or more antenatal care visits, and receipt of tetanus toxoid), delivery care (use of a health professional for delivery), and HIV/AIDS prevention awareness. The environmental context includes those indicators related to the physical circumstances in which women live. Included in this group are rural residence and lack of household amenities (electricity, earthen floor, piped drinking water, and sanitary facilities).

4.2.1 Social Context

Women's health is usually viewed from a biomedical perspective; however, a woman's own understanding of her health is often rooted in the social conditions of her life (Avorti and Walters, 1999). Indicators of the social context of women's health are education, exposure to media, employment, marital status, and female-headed households. These social factors are important to a woman's social status and ability to access productive resources to enhance her personal health as well as that of her family.

4.2.1.1 Education

Education is an important indicator of the context of women's health. Generally, women with more education have better health, have improved life opportunities, live in healthier environments, and have healthier children than women with little or no education. Education impacts women's health through delayed marriage (even primary education has been found to be associated with postponement of marriage). A higher age at marriage is associated with higher women's status. The higher status increases a woman's voice in decisions affecting her health, including fertility, which in turn affects her risk of poor health. Education also increases a woman's knowledge of modern health and nutrition practices that lead to better hygiene and utilization of health services (Jejeebhoy, 1995; Celik and Hotchkiss, 2000; Matsumura and Gubhaju, 2001).

Because of the varying types of educational systems, rates of school attendance and illiteracy rates are used for comparability in DHS survey countries. Two indicators function as measures of education: the ratio of girls' school attendance to boys' attendance and the rate of female illiteracy. The ratio of girls' primary school attendance to boys' attendance provides an indication of the degree to which girls' education is valued. Illiteracy in DHS surveys is determined by a respondent's inability to read all or part of a simple sentence in any of the major language groups of the country.

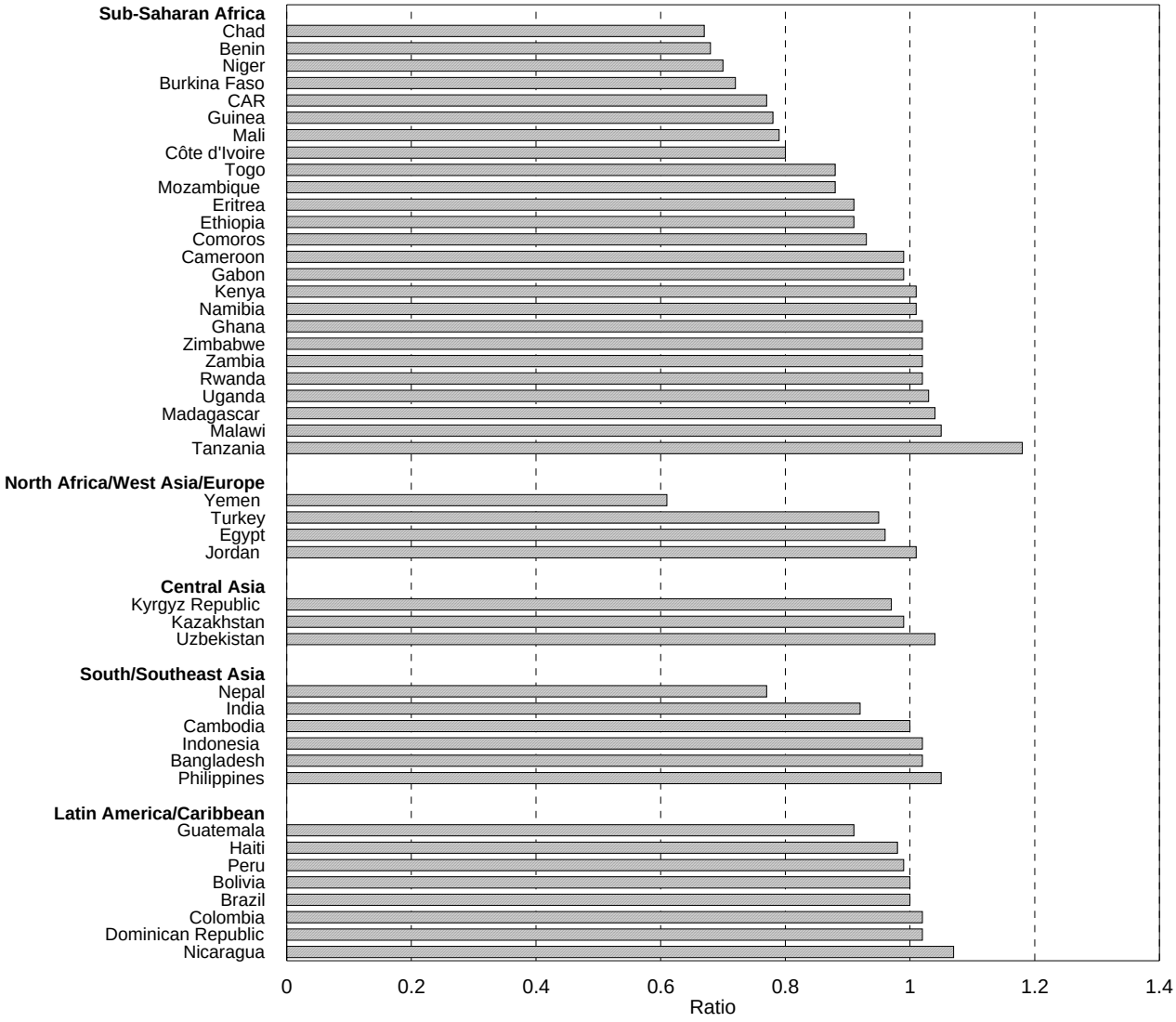
School attendance ratio

The level of girls' education is determined from the proportion of children age 6-10 attending school, disaggregated by sex. Table A.4.6 shows the percentage of the de facto household population age 6-10 who are currently attending school, by sex. School attendance rates are generally lower in sub-Saharan Africa than in other regions. In sub-Saharan Africa, the proportion of females age 6-10 currently attending school ranges from a low of 17 percent in Niger to a high of 93 percent in Gabon. In 15 of 25 sub-Saharan countries, less than 50 percent of females age 6-10 years are attending school. In only one country (Yemen) in North Africa/West Asia/Europe are less than 50 percent of females currently attending school. For all countries in the other regions, the rate is greater than 50 percent. Countries in Latin America and the Caribbean have a much higher rate of school attendance of girls than the other regions. In five out of eight countries in Latin America and the Caribbean, the rate of girls' school attendance is over 90 percent.

The ratio of girls' to boys' attendance rates is based on the percentage of girls age 6-10 who are currently attending school divided by the percentage of boys currently attending school (Figure 4.11). A ratio of less than 1 indicates that a smaller proportion of girls than boys attend school. This ratio ranges from an average of 0.88 in North Africa/West Asia/Europe to a high of 1.00 in Central Asia. Gender bias in education is evident in a number of countries. Ten out of 25 countries in sub-Saharan Africa have female/male attendance ratios that are low (less than 0.90), indicating female disadvantage in education. Yemen, in North Africa/West Asia/Europe, has a very low ratio of 0.61, and Nepal in South/Southeast has a ratio of 0.77. Nevertheless, 18 of the 46 countries have a ratio greater than 1.00, indicating a female advantage in education in these countries. Central Asia and Latin America and the Caribbean regions have the highest ratios (greater than 0.90) of female/male attendance.

Figure 4.11 School attendance ratio

Ratio of girls to boys attending school at age 6-10 years

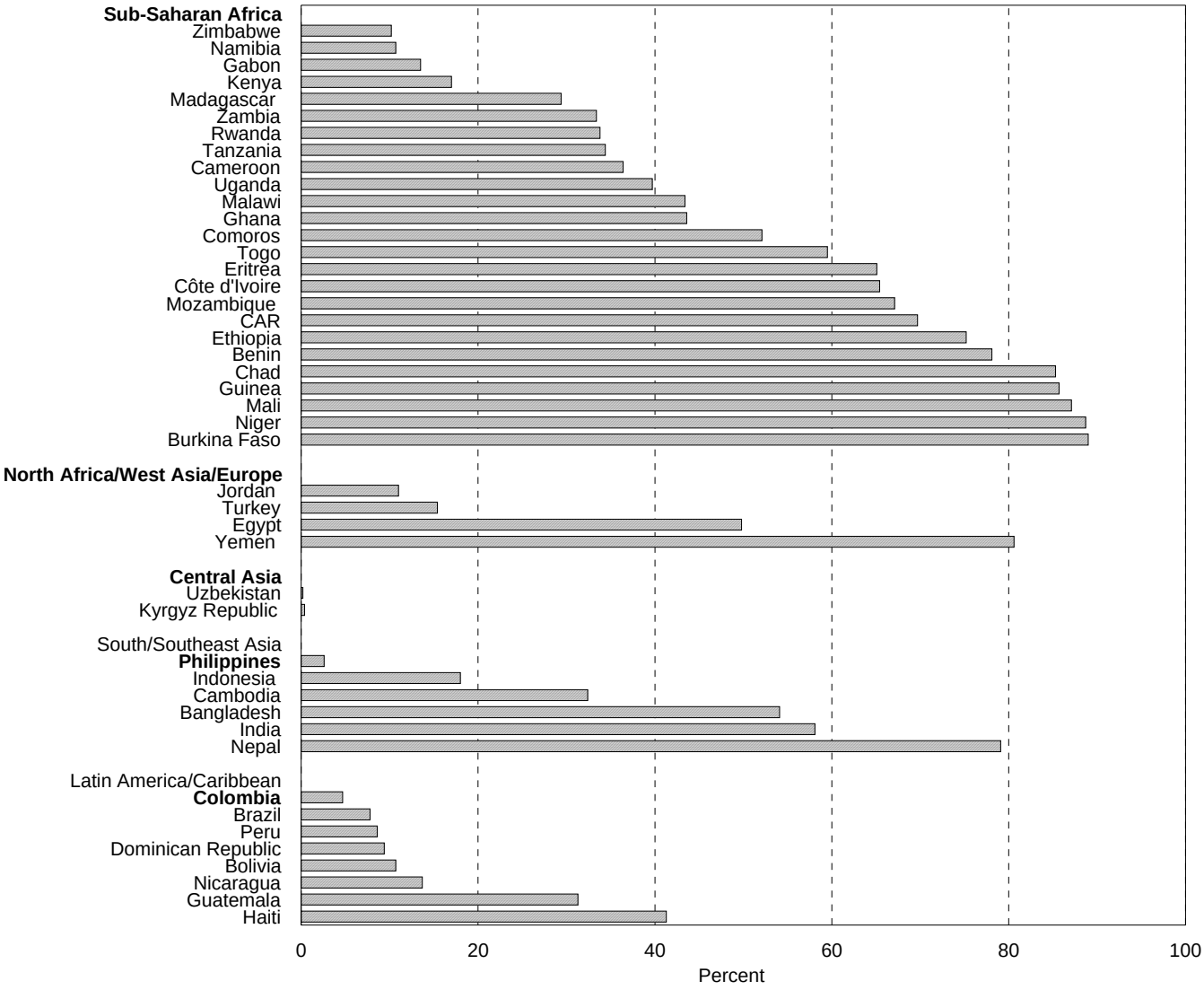


Female Illiteracy

The ability to read is an important personal asset allowing women increased opportunities in life. In DHS surveys, literacy is established by the demonstration of a respondent's ability to read all or part of a simple sentence in any of the major language groups of the country. Table A.4.7 shows the percent distribution of women age 15-49 years who read easily, read with difficulty, and cannot read. Figure 4.12 shows the rates of illiteracy across regions. Sub-Saharan Africa has the highest rates of female illiteracy (53 percent on average), followed by South/Southeast Asia (41 percent) and North Africa/West Asia/Europe (39 percent). The Central Asian region has the lowest rates of illiteracy (less than 1 percent), followed by Latin America and the Caribbean (16 percent). In 17 of the 45 countries in Table A.4.7, the prevalence of illiteracy is 50 percent or higher. Schooling is universal in Kazakhstan, and since the majority of respondents attained secondary schooling or higher, the literacy question was not asked.

Figure 4.12 Illiteracy

Percentage of women age 15-49 years who cannot read



4.2.1.2 Exposure to media

Despite high levels of illiteracy, exposure to mass media enables women to be more informed about their community, to have access to information on healthy behaviors and practices, and to broaden their perspectives on life beyond the household and community. In DHS surveys, exposure to media is assessed by asking women how often they read a newspaper, watch television, and listen to radio.

Table A.4.8 shows the percentage of women exposed to the different types of mass media. Figure 4.13 shows that newspaper reading is more widely practiced in countries with low levels of female illiteracy. In all of the sub-Saharan countries, less than 40 percent of women reported reading a newspaper at least once a week. In 9 out of 25 countries in sub-Saharan Africa, less than 10 percent of women reported reading a newspaper at least once a week. Central Asia is the only region where all countries have a prevalence of weekly newspaper reading that exceeds 50 percent. Yemen has the lowest

rate (10 percent) in North Africa/West Asia/Europe. In South/Southeast Asia, less than 10 percent of women in Nepal and Bangladesh report having read a newspaper in the past week. In Latin America and the Caribbean, the prevalence of newspaper reading is over 50 percent in half of the countries. Peru and Haiti have the lowest rates of newspaper reading in this region (26 percent each).

Figure 4.13 Newspaper reading
Percentage of women age 15-49 who usually read a newspaper at least once a week

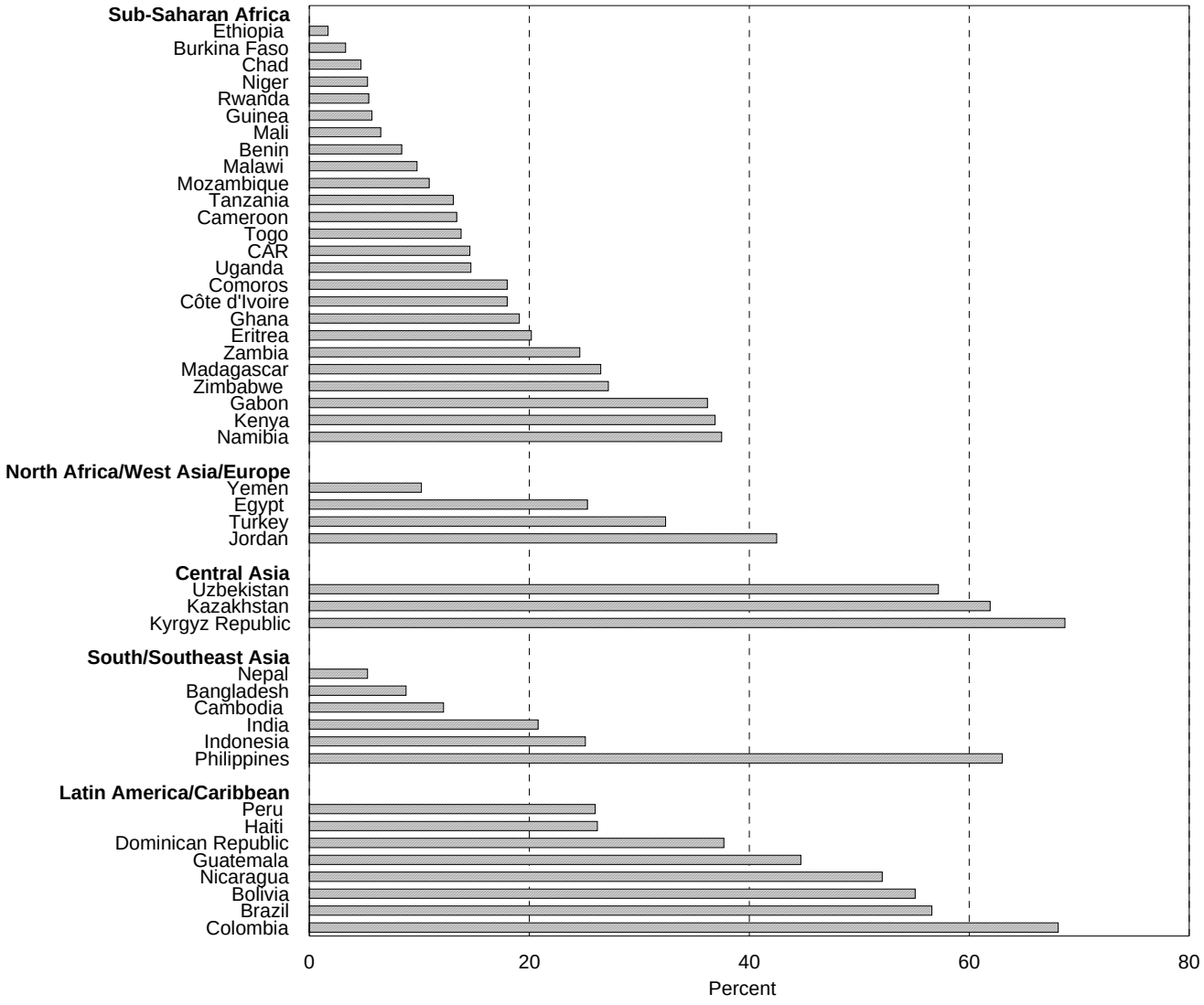
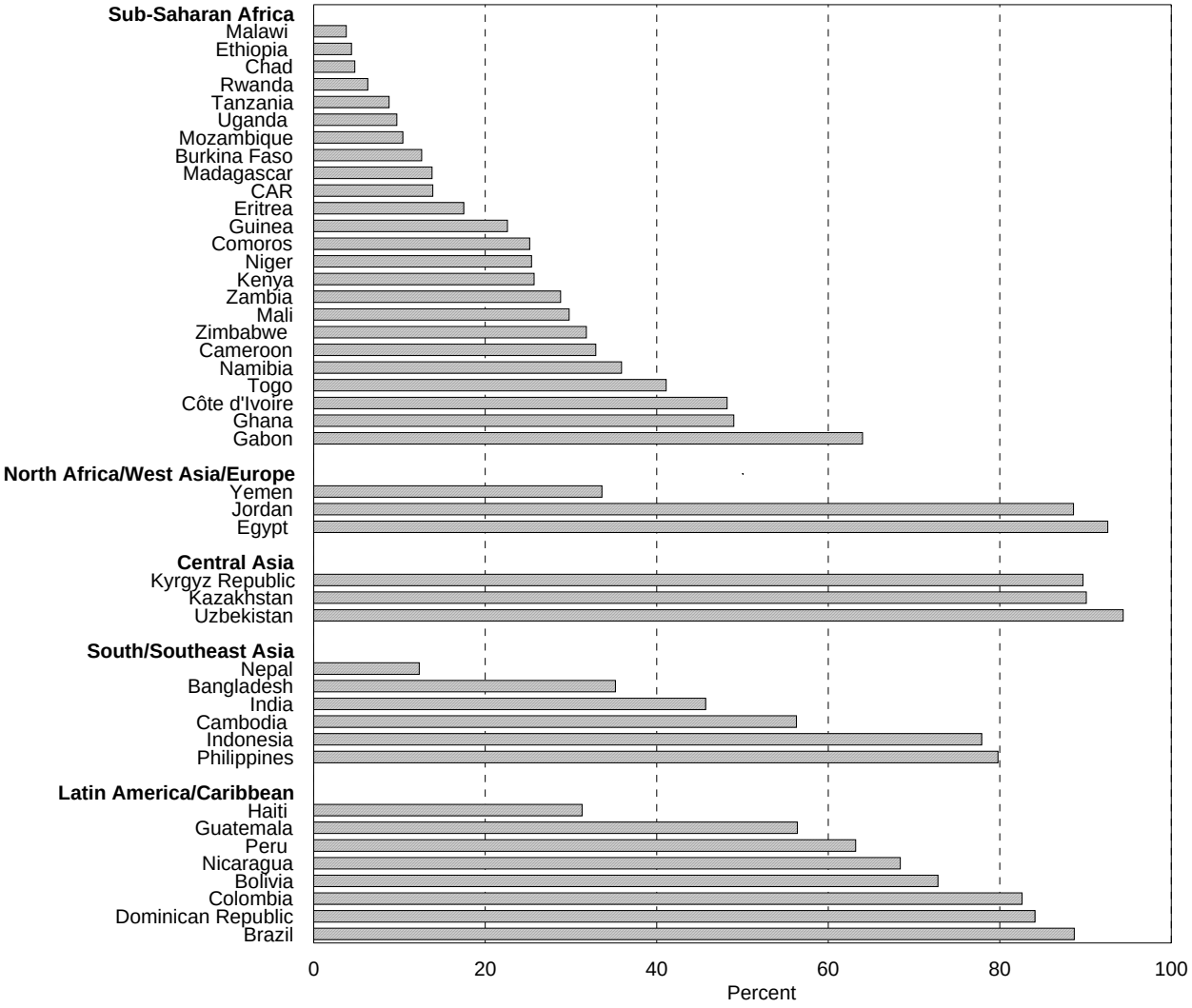


Figure 4.14 shows the percentage of women who watch television at least once a week. Again, sub-Saharan Africa has the lowest rates. Central Asia consistently has the highest prevalence of television watching (about 90 percent). Viewership in North Africa/West Asia/Europe, except for Yemen and Turkey, exceeds 85 percent. In South/Southeast Asia, television viewing varies from a low of 12 percent in Nepal to a high of 80 percent in the Philippines. Countries in Latin America and the Caribbean have television viewing rates ranging from 31 percent in Haiti to 89 percent in Brazil. In all but one of the Latin America and Caribbean countries, more than 50 percent of women reported watching television weekly.

Figure 4.14 Television watching

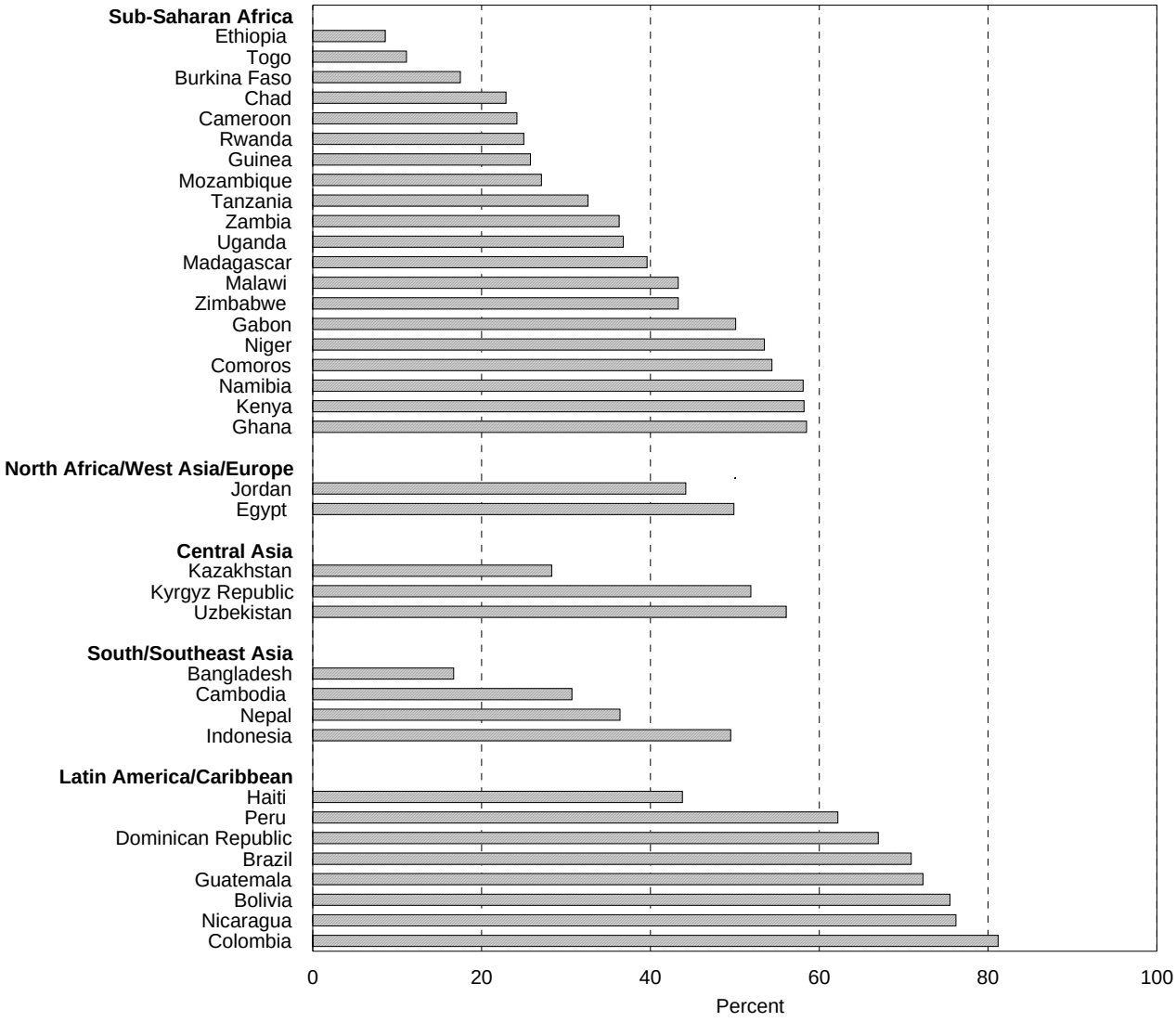
Percentage of women age 15-49 who watch television at least once a week



In most countries in sub-Saharan Africa, the proportion of women who listen to the radio daily is greater than the proportion who read a newspaper or watch television weekly (Table A.4.8 and Figure 4.15). Overall, women in Latin America and the Caribbean are much more likely to listen to the radio daily than women in other regions. For all countries in North Africa/West Asia/Europe, Central Asia, and South/Southeast Asia, except Nepal, the proportion of women who listen to radio daily is lower than the proportion who watch television weekly. Information on radio listening is available only on a weekly basis in CAR, Côte d'Ivoire, Eritrea, Mali, Yemen, and India (Table A.4.8).

Figure 4.15 Radio listening

Percentage of women age 15-49who listen to the radio at least once a day



4.2.1.3 Employment

The role of work in women's lives should be included in any discussion of women's health. Women are increasingly entering the labor force, and mothers are required to fit their child-care and domestic responsibilities around their hours of work, often leaving little time for themselves. On the other hand, income from wage work may offer health benefits to women by allowing them to purchase basic necessities such as housing and food. Women's work has been found to improve dietary intake (Bisgrove and Popkins, 1996) and to influence fertility (Derose, 2002). Women's autonomy and well-being are enhanced by income earned from work outside the home, thereby reducing their social dependence on a male partner. However, economic pressures on women living in poverty draw them into agricultural work, and women's nutritional status and health may be diminished by the long hours and heavy work required (Doyal, 1995).

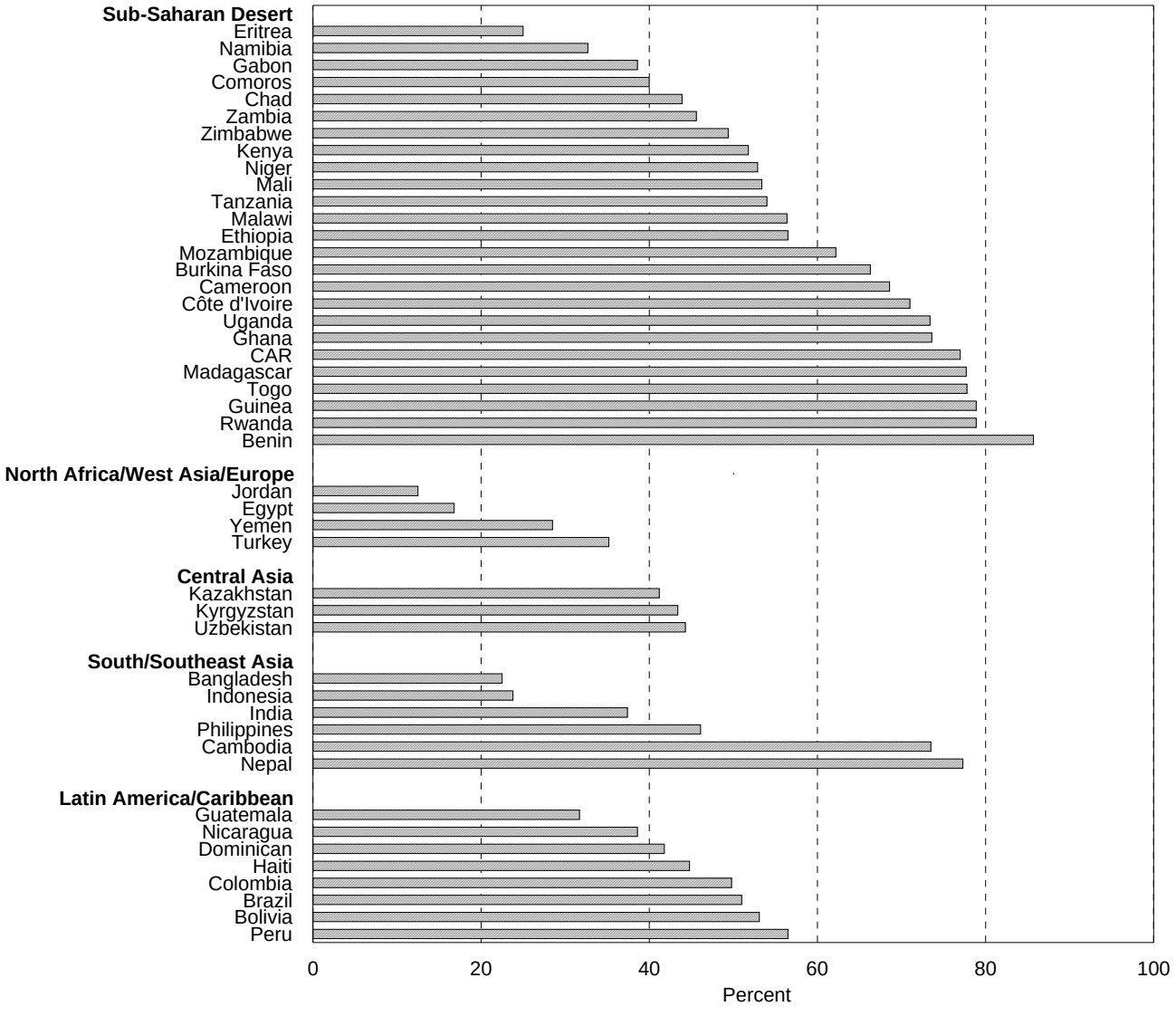
In DHS surveys, women are asked a series of questions about the role of work in their lives, two of which are reported on in this analysis:

1) Have you done any work [aside from housework] in the past 12 months?
2) What is your occupation, that is, what kind of work do you mainly do?

The two indicators of women's work drawn from the questions are the percentage of women age 15-49 who are currently working (worked in the 12 months preceding the survey) and, of the women who worked in the past 12 months, the percentage working in agriculture.

Overall, women in sub-Saharan Africa are more likely to work than women in other regions. In 18 of the 25 countries in this region, more than 50 percent of women reported that they were currently working; in 6 of the countries, this proportion is over 75 percent (Table A.4.9 and Figure 4.16). In countries in North Africa/West Asia/Europe and in Central Asia, women were not as economically active. None of the countries in these regions reported a rate as high as 50 percent (Figure 4.16). However, more women were working in Central Asia than in North Africa/West Asia/Europe. In South/Southeast Asia, a small percentage of women reported that they were working, except in Cambodia and Nepal, where more than 70 percent of women reported working in the past year (Table A.4.9). In Latin America and the Caribbean, the proportion working ranges from 32 percent in Guatemala to 57 percent in Peru (Table A.4.9).

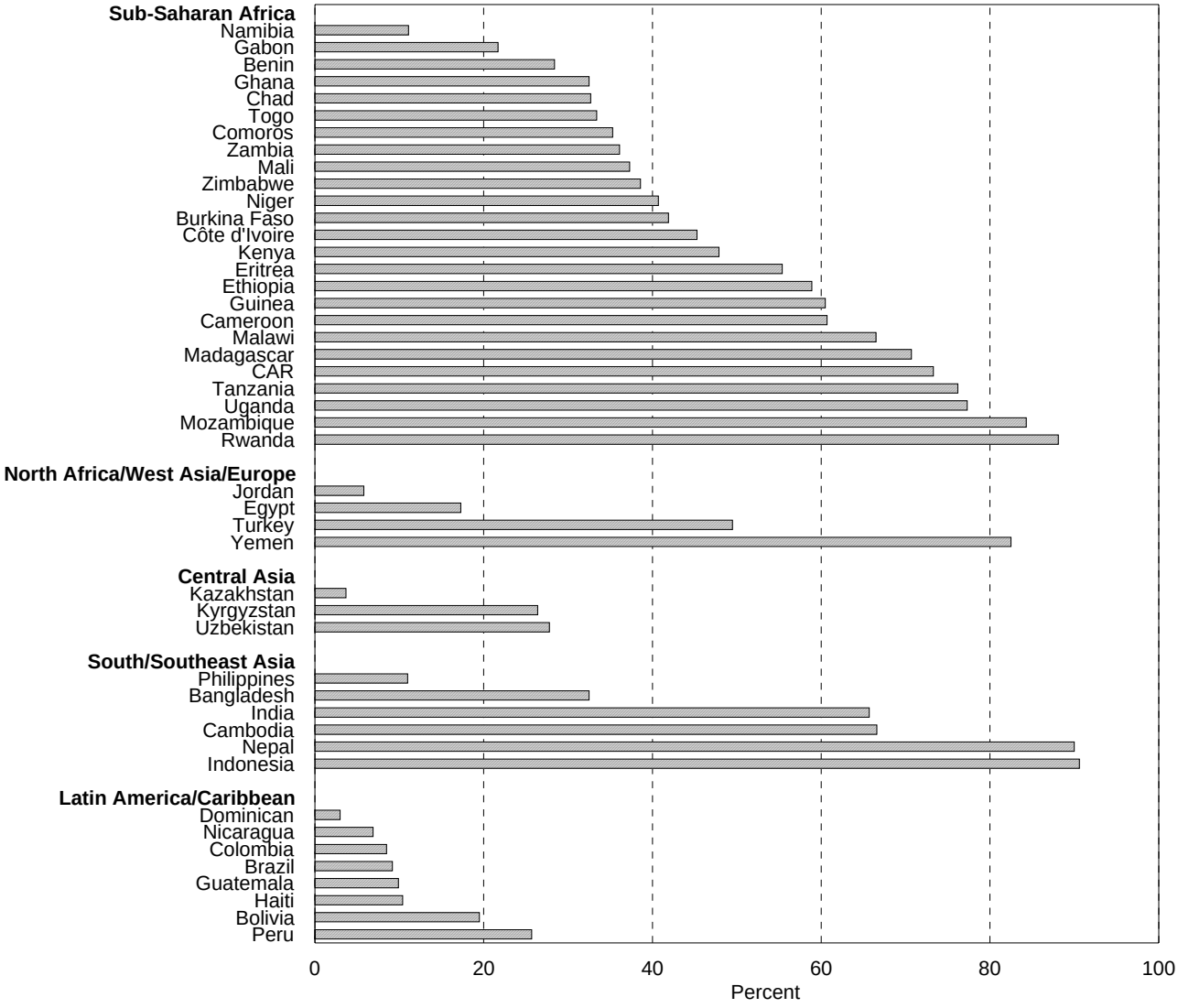
Figure 4.16 Employment status
Percentage of women 15-49 who worked in the past 12 months



In much of the developing world, women are producers of food and livestock as well as primary meal makers. The majority of women in sub-Saharan Africa and a large percentage of those in South/Southeast Asia reported that they were currently working; many in agriculture (Table A.4.9). In Latin America and the Caribbean and in Central Asia, few women worked in agriculture. In North Africa/West Asia/Europe, the proportion working in agriculture ranges from a low of 6 percent in Jordan to a high of 83 percent in Yemen (Figure 4.17). Agricultural work is often considered low-level work, providing little if any income, and thereby not contributing to women's status or empowerment.

Figure 4.17 Work in agriculture

Percentage of women who work in agriculture among women age 15-49 who worked in the past 12 months



4.2.1.4 Marital status

It has been posited that marriage provides a sense of security and social support for women, which may be associated with better health. However, increased exposure to the risk of pregnancy can jeopardize women's health. On the other hand, married women are less at risk of pregnancy problems than women who conceive outside of marriage. Also, married women in monogamous unions are likely to be healthier than those in polygynous unions. However, women in polygynous unions may have long periods of postpartum insusceptibility and hence longer birth intervals, which benefit their health (Defo, 1997).

Table A.4.10 shows the percent distribution of women by current marital status. In 8 of the 46 countries, more than three-fourths of women are married or living with a partner. In all but two sub-Saharan countries (Namibia and Rwanda), most women are married or living with a partner. Namibia stands out for having only 39 percent of women currently married or living with a partner. Countries in Latin America and the Caribbean generally have lower proportions of women currently married or living with a partner than countries in other regions.

Few women are single in the developing world. Sub-Saharan Africa has both the lowest and the highest rates of never-married women. The lowest rates are reported in Niger (11 percent), Mali (13 percent), and Chad and Guinea (14 percent each). The highest rate is reported in Namibia, at 54 percent. In other regions, the proportion never married ranges from 17 to 45 percent (Table A.4.10). In all but three countries (Rwanda, the Dominican Republic, and Nicaragua), less than 15 percent of women age 15-49 are widowed/divorced/separated (Figure 4.18).

Traditional marriage practices, particularly polygyny, are still practiced throughout sub-Saharan Africa and in parts of North Africa/West Asia/Europe, South/Southeast Asia, and Latin America and the Caribbean. The extent of polygyny is measured by asking married women respondents, "Does your husband/partner have any other wives besides yourself?" Polygyny has implications for the frequency of exposure to sexual activity, the risk of sexually transmitted diseases, and fertility.

The percentage of currently married women living in a polygynous union varies from 3 percent in Madagascar to 53 percent in Guinea and 55 percent in Burkina Faso in sub-Saharan Africa (Table A.4.11). In the three countries of North Africa/West Asia/Europe and South/Southeast Asia, the rates are 6 to 7 percent. In Latin America and the Caribbean, Haiti has a rate of almost 20 percent (Figure 4.19). It has been reported elsewhere that polygyny is on the decline in most countries, and it is more common in rural areas and among less educated women (Westoff, 2003).

Figure 4.18 Marital status
Percent distribution of women age 15-49 by marital status

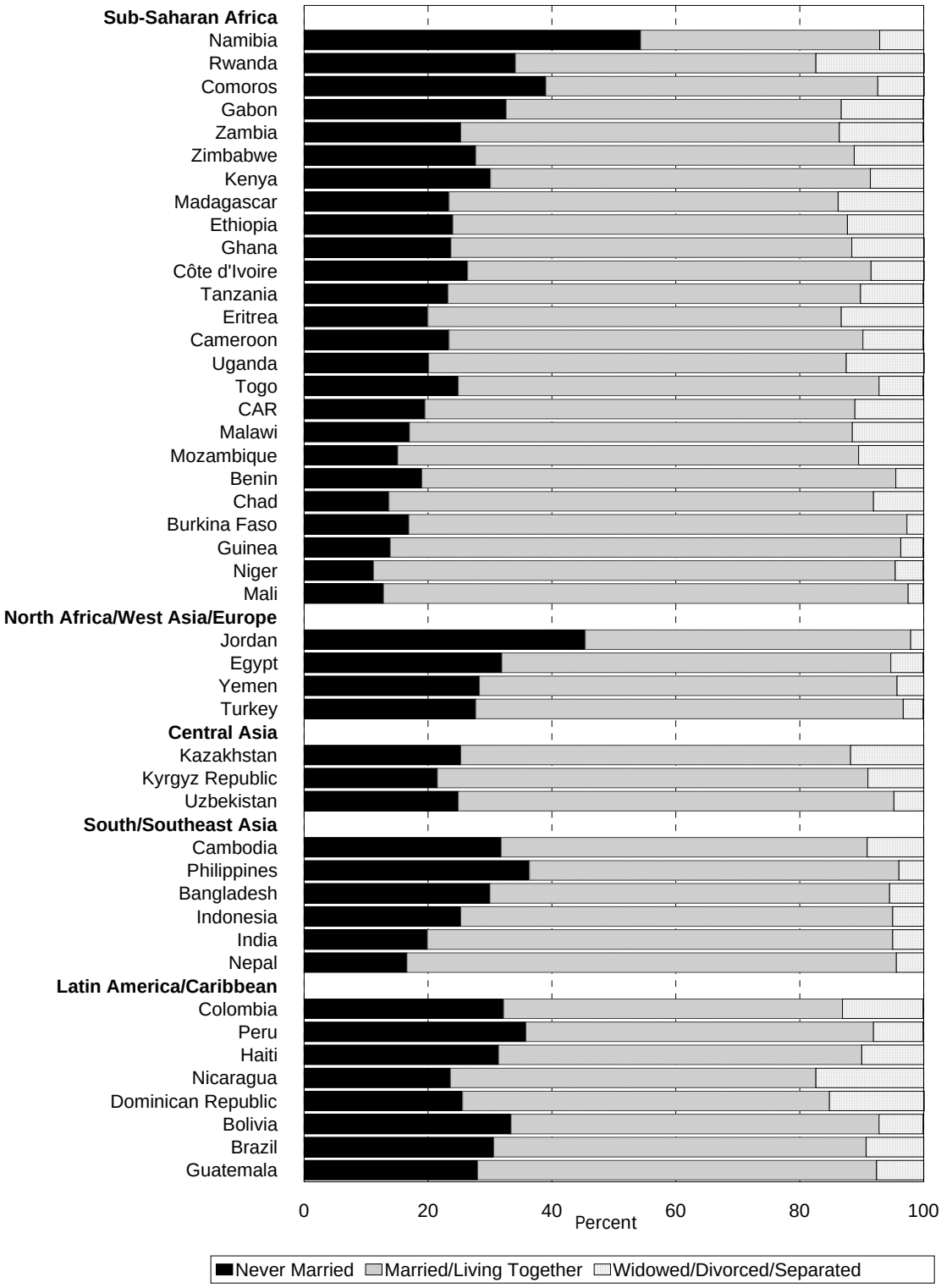
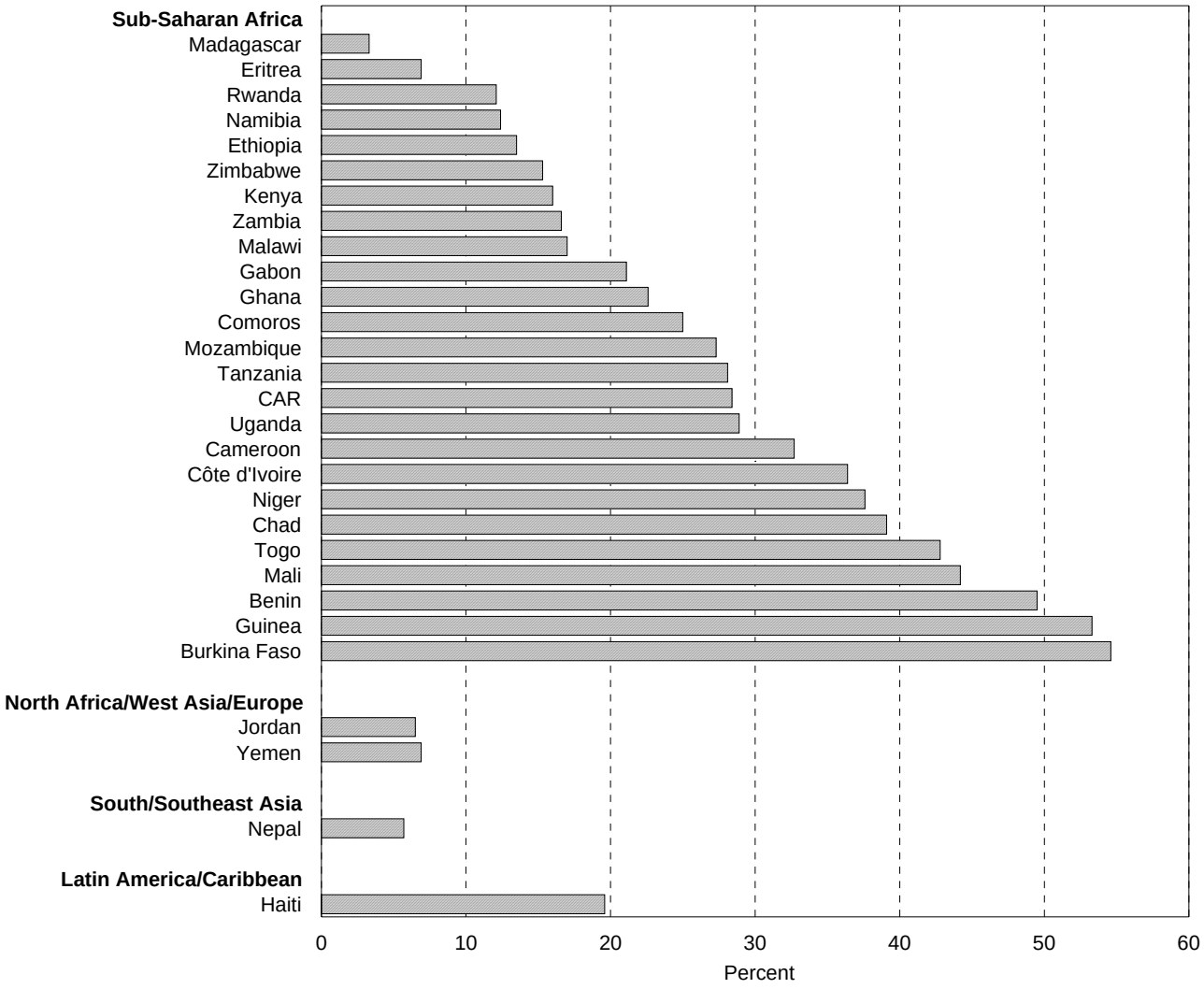


Figure 4.19 Polygyny
Percentage of currently married women age 15-49 who are in polygynous unions



4.2.1.5 Female-Headed Households

The circumstances creating female-headed households are not homogeneous. Female headship is composed of widowed/separated/divorced women, never-married women, abandoned women, and women whose husbands have migrated away in search of employment (Joshi, 2004). In some countries, there are larger percentages of female-headed households in urban areas; in others, rural areas have more female-headed households. Each is influenced by different socioeconomic dynamics and the changing social structure of families.

Poor women have to efficiently manage their limited resources, and women who are heads of households and have control over resources tend to cope more efficiently with fewer resources. If female heads of households have more control over resources than women who are not heads of households, it would be expected that they might put these resources to use in safeguarding their health and nutrition and that of their children (Chant, 2003). However, a multivariate analysis of DHS data in three sub-Saharan countries shows no clear relationship between female-headed households and the nutritional status of

children. In Mozambique, children living in female-headed households are worse off than children living in male-headed households (Espeut et al., 2001).

In Eritrea, female-headed households put children at a nutritional advantage (Rutstein et al., 1999). Whereas, in Madagascar, it is found to have no effect on children's nutritional status (Haggerty et al., 1999). This variation is consistent with the international literature (Onyango et al., 1994; Johnson and Rogers, 1993). Moreover, there is little in the literature about the effects of female headship on women's health and nutrition.

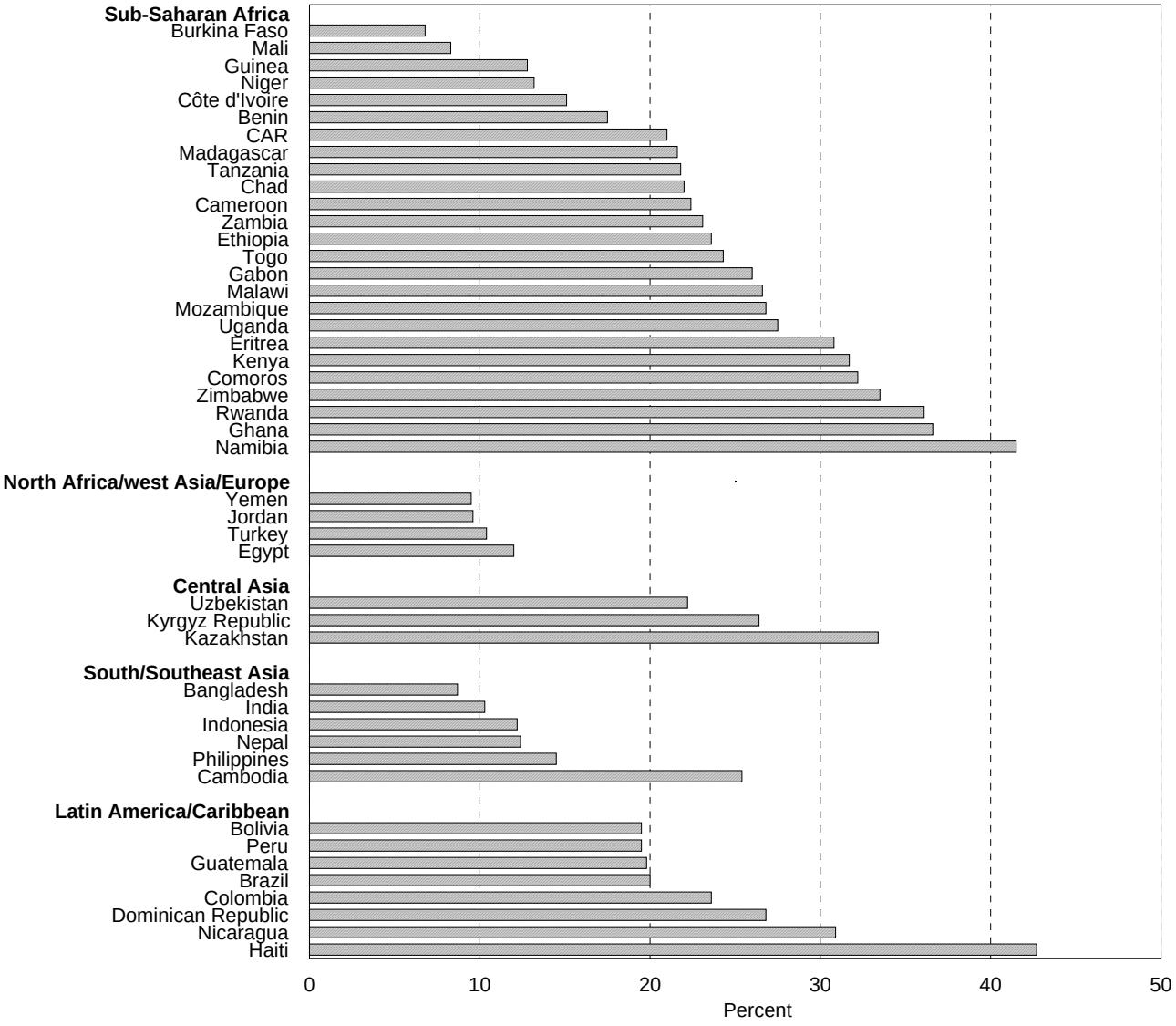
As part of the DHS interview, household members are asked to state who is the head of the household. Although men are frequently determined to be household heads, there are significant numbers of households reported to be headed by women. A de jure sample of women (women who are usual legal residents of the household) was used to define the female-headed households for this analysis. Table A.4.12 shows that the percentage of de jure women who live in female-headed households ranges from a low of 6 percent in Mali and Burkina Faso to a high of 47 percent in Haiti and Namibia.

In 17 of 25 sub-Saharan countries, more than 20 percent of households are headed by females. Countries in North Africa/West Asia/Europe and South/Southeast Asia generally have lower proportions of women living in female-headed households than countries in Central Asia and Latin America and the Caribbean. In South/Southeast Asia, Cambodia stands out with 25 percent of women living in female-headed households. Central Asia has rates ranging from 20 percent in Uzbekistan to 28 percent in Kazakhstan. Countries in Latin America and the Caribbean have rates that vary from about 18 percent in Peru to a high of 47 percent in Haiti (Figure 4.20).

Female-headed households, especially those with young children, are often overrepresented among poor households (Buvinic, 1998). Women who are heads of households are less likely to be educated and, if educated, they have less education than women who are not heads of households (Kishor and Neitzel, 1996). Women heads of households are often older (40 or more years), are widowed, have higher parity, and are currently employed (Kishor and Neitzel, 1996). Female-headed households may or may not be poorer than male-headed households in terms of material poverty, but women tend to be worse off in terms of deprivation due to excessive workload, social subordination, and reduced life chances (Cagatay, 1998).

Figure 4.20 Female-headed households

Percentage of women age 15-49 living in households headed by women



4.2.2 Behavioral Context

Behavioral practices related to fertility are important to the context of women's health. A young age at first intercourse and marriage may lead to a life of high fertility and a long childbearing period that can leave women living lives of exhaustion and nutritional depletion as they tend to their family's needs rather than to their own health.

4.2.2.1 Fertility practices

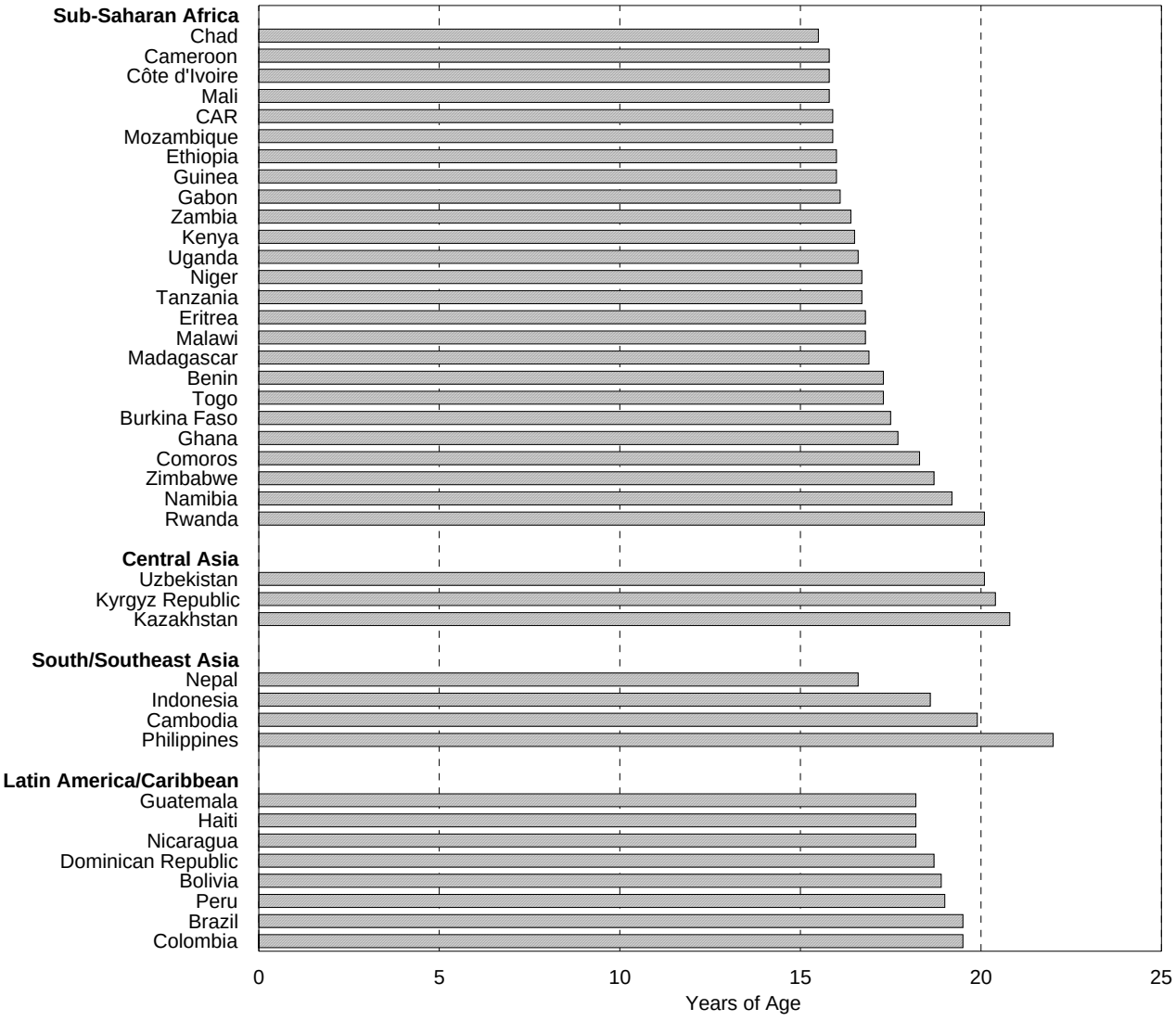
Age of first intercourse, first marriage, and first birth provide a picture of initial influences on fertility that is suggestive of fertility-related outcomes. In most countries, marriage is a primary indication of the exposure of a woman to the risk of pregnancy and therefore is important in understanding fertility. Populations in which the age at first marriage is low tend to have early childbearing and high fertility; therefore, it is important to examine trends in age at first marriage. Data on age at first sexual intercourse are a more direct measure of the beginning of exposure to pregnancy. Related to this indicator is the

median age at first birth. The age at which childbearing begins is associated with the number of children a woman bears during her reproductive period in the absence of any active fertility control.

The median ages at first sexual intercourse, first marriage, and first birth for women age 25-49 are shown in Table A.4.13. A key observation that can be drawn from these data is that for 50 percent of women, first marriage, first intercourse, and first birth all occurred during the adolescent period (under 20 years), thereby inhibiting women's opportunities for pursuing education and for securing skills for self-empowerment and improved work opportunities.

Median age at first sexual intercourse ranges from a low of about 16 years in 10 countries of sub-Saharan Africa to 22 years in the Philippines in South/Southeast Asia (Figure 4.21).

Figure 4.21 Median age at first sexual intercourse
Women age 25-49



In sub-Saharan Africa, the median age at first sexual intercourse is lower than the median age at first marriage by a difference of one to three years. Niger and Eritrea are the only countries where the median age at first marriage is lower than the median age at first sexual intercourse; in Ethiopia, the median age at both first marriage and first sex are the same. No data were collected on age at first sexual intercourse in countries in North Africa/West Asia/Europe. In Central Asia and South/Southeast Asia, the median ages at first sexual intercourse and first marriage are about the same. Median ages at first sexual intercourse and first marriage are higher in Latin America and the Caribbean than they are in sub-Saharan Africa, but show a similar one- to two-year difference, with first sexual intercourse occurring before first marriage.

Overall, the median age at first marriage is higher in Central Asia and in Latin America and the Caribbean than it is in sub-Saharan Africa and South/Southeast Asia (Figure 4.22). In all three countries in Central Asia and in five of the eight countries in Latin America and the Caribbean, the median age at first marriage is over 20 years. Median age at marriage is most variable in South/Southeast Asia, ranging from a low of just under 15 years in Bangladesh to a high of just over 22 years in the Philippines.

Figure 4.22 Median age at first marriage
Women age 25-49

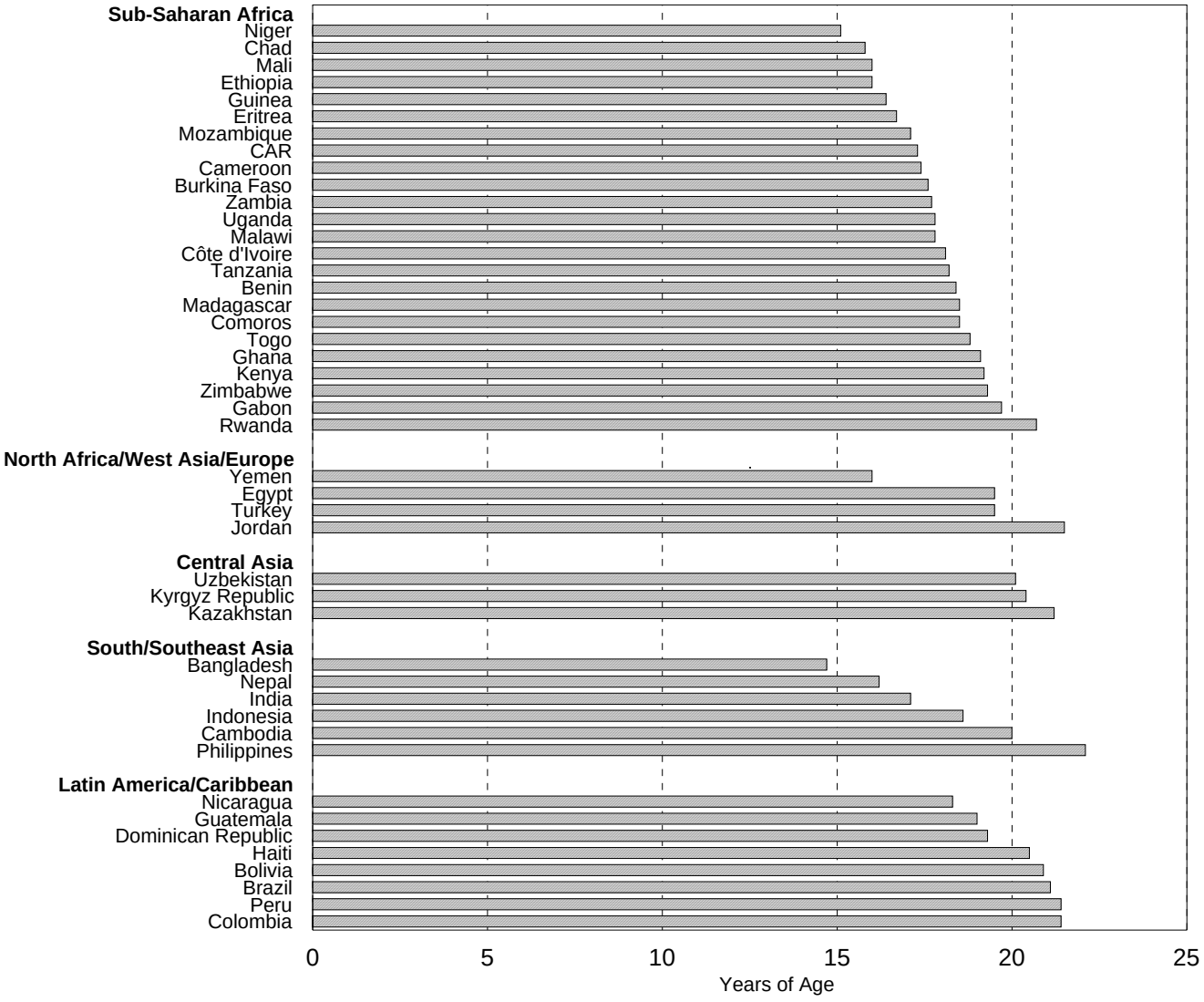
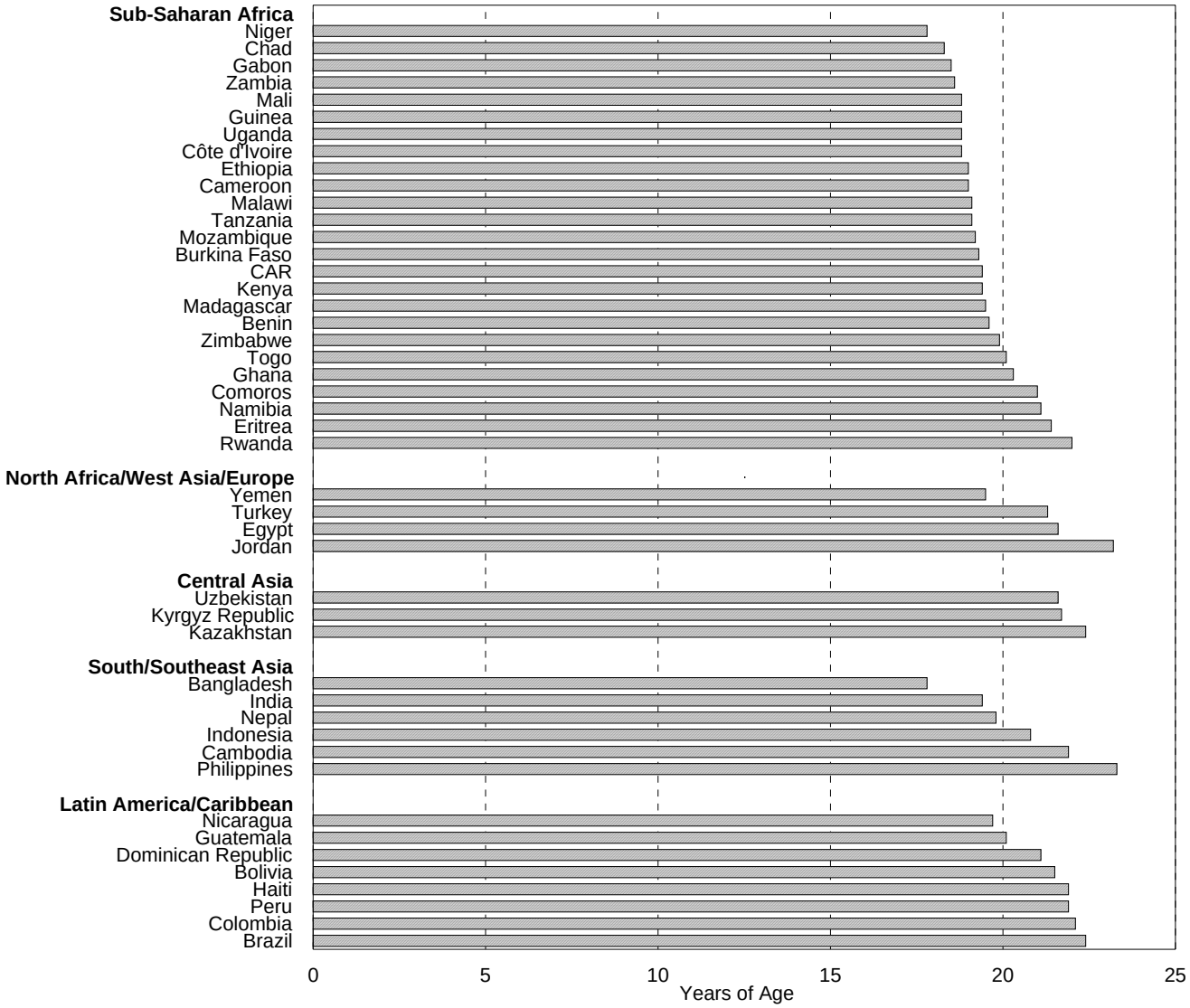


Figure 4.23 shows patterns of median age at first birth among women age 25-49. The median age at first birth is about 20 years or higher in most regions. In sub-Saharan Africa, only 6 of 25 countries have a median age at first birth of 20 years or more. In nearly all countries in North Africa/West Asia/Europe, Central Asia, and Latin America and the Caribbean, the median age at first birth is 20 years or more. In South/Southeast Asia, 3 of 6 countries have a median age at first birth of 20 years or more. At 17.8 years, Niger in sub-Saharan Africa and Bangladesh in South/Southeast Asia have the lowest median age at first birth of all the countries. Jordan, in North Africa/West Asia/Europe, and the Philippines, in South/Southeast Asia, have the highest median age at first birth (23.2 and 23.3 years, respectively).

Figure 4.23 Median age at first birth
Women age 25-49



The differences between median age at first intercourse and median age at first birth and between median age at first marriage and median age at first birth are very small, if there are any differences. It appears that women have sexual intercourse, get married, and have children in fairly close succession. In 21 of 25 countries in sub-Saharan Africa, the difference between median age at first marriage and median age at first birth is usually between 1 and 3 years, and the difference between median age at first sex and median age at first birth is between 2 and 3.5 years. In Eritrea, the difference between median age at first birth and first intercourse is comparatively large at 4.6 years, and the difference is virtually the same between median age at first birth and first marriage.

In North Africa/West Asia/Europe, there is no information on age at first intercourse, but the difference between median age at first marriage and first birth is between 1 and 2 years for three of the four countries. In Yemen. the difference between median age at first marriage and first birth is almost 4 years.

In Central Asia and South/Southeast Asia, the difference between the median age at first intercourse and median age at first birth is about 1.5 years, which is the same as the difference between median age at first marriage and median age at first birth. In the countries of Latin America and the Caribbean, the difference between the median age at first intercourse and median age at first birth is from 1.5 to 3 years, and a little less between the median age at first marriage and median age at first birth (less than 1.5 years). The differences between age at first marriage and age at first birth as well as age at first intercourse and age at first birth range from 1 to 2 years in Central Asia and one to three years in South/Southeast Asia for four of six countries for which there are data on all three indicators.

Total Fertility Rate and Wanted Fertility

Total fertility rate (TFR) is a useful measure for examining the overall level of fertility of women. It is interpreted as the average number of children a woman would bear in her lifetime if she experienced the currently observed age-specific fertility rates throughout her reproductive years. Undernutrition and, in turn, poor health in women are linked to fertility as well as food availability. Many women in developing countries have depleted their nutritional stores because of improperly spaced births (Labbok, 1991; Merchant and Martorell, 1988). In countries where the TFR is high, there is usually a correlation with poor health in women.

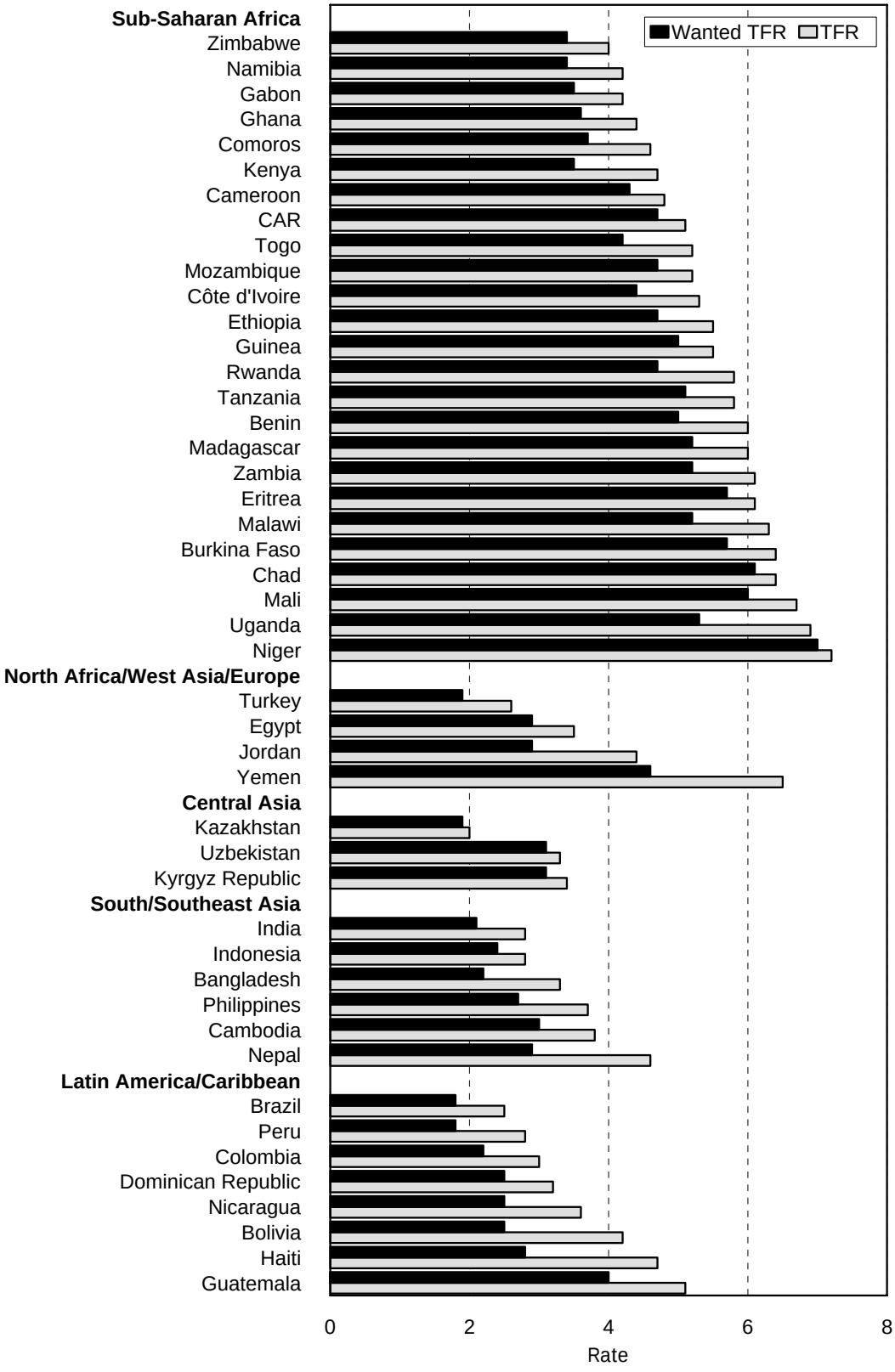
Table A.4.14 presents the TFR and wanted TFR for the 46 countries surveyed. The wanted total fertility rate is calculated in the same manner as the standard TFR by adding up the age-specific fertility rates, except that unwanted births are omitted from the numerator. Observing the two rates comparatively suggests the potential effect of the elimination of unwanted births.

In sub-Saharan Africa, the TFR ranges from 4.0 in Zimbabwe to 7.2 in Niger, with an overall average across the region of 5.5. North Africa/West Africa/Europe follows with an overall average of 4.5, ranging from 2.6 in Turkey to 6.5 in Yemen. South/Southeast Asia and Latin America and the Caribbean have similar averages of 3.5 and 3.6, respectively. Kazakhstan in Central Asia has the lowest TFR (2.0) among the countries surveyed.

As expected, the actual TFR is higher than the wanted TFR (Figure 4.24). The smallest differences between the TFR and the wanted TFR are found in Central Asia, with an average difference of 0.2, meaning that women are having the number of children they desire. The largest differences are seen in North Africa/West Asia/Europe, with an average difference of 1.4. Latin America and the Caribbean and South/Southeast Asia have an average of about 1.0 unwanted children per woman. Although sub-Saharan Africa has the highest regional TFR, the average difference between the TFR and the wanted TFR in that region is less than 1 (0.8), suggesting that the women both want large families and are having large families.

Figure 4.24 Fertility

Total fertility rate and total wanted fertility rate for the three years preceding the survey



Duration of Childbearing Period

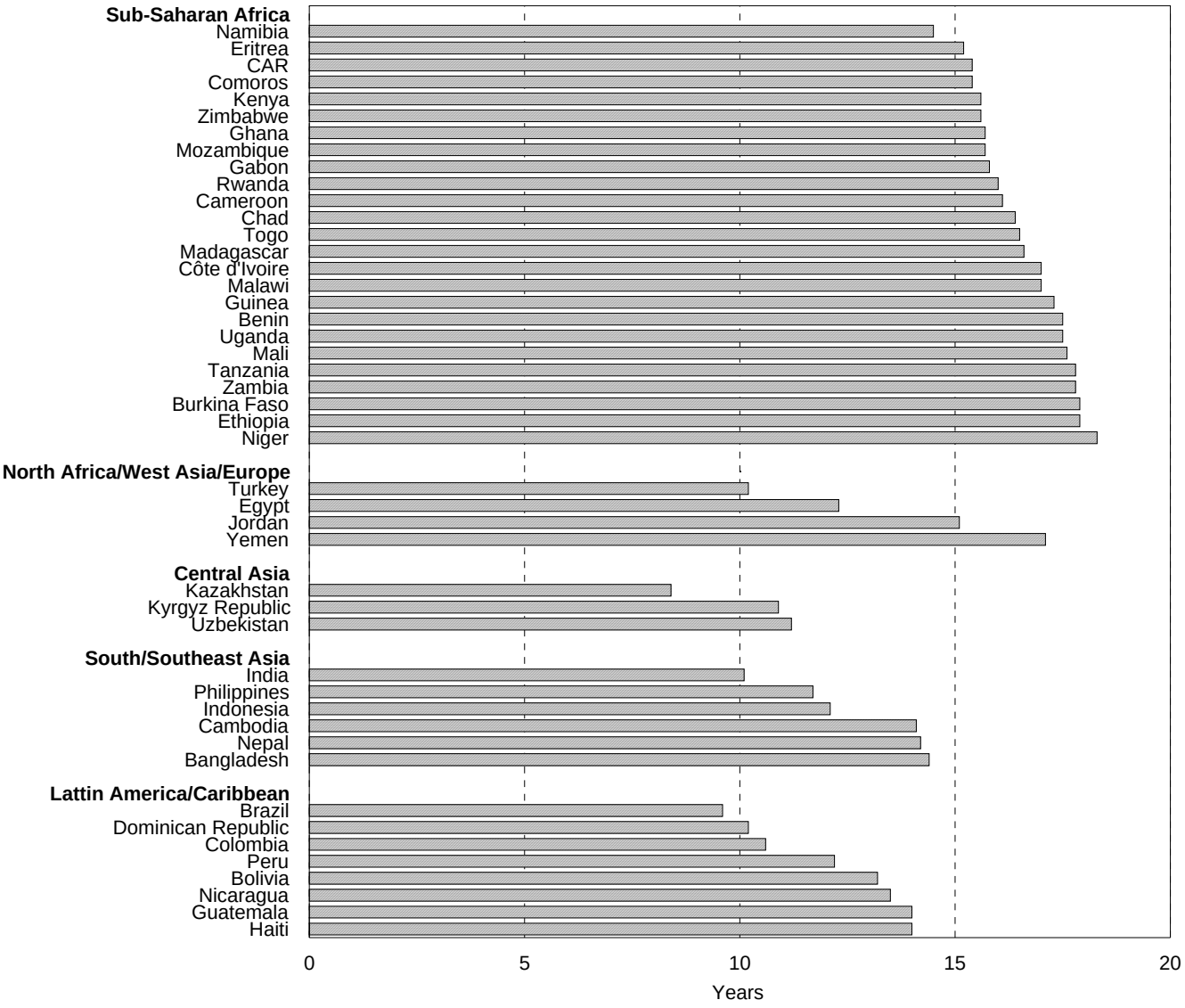
The length of the childbearing period (Table A.4.15), which is defined here as the average number of years between the first and last birth for ever-married women age 40-49 with two or more births, gives an indication of approximately how much of a woman's life is spent being pregnant, breastfeeding, and caring for young infants. Compared with a previous analyses, these results indicate that the length of the childbearing period seems to have decreased by one to three years in the past ten years (Carr and Way, 1994).

The childbearing period is longest in sub-Saharan Africa, ranging from 14.5 years in Namibia to 18.3 years in Niger. If the median age at first birth is about 19 years of age, a typical woman in this region might have her first birth at 19 and her last birth around 35 years of age. Previous survey results indicate that women age 40-49 had their first birth around age 19 and continued childbearing through age 38 or 39 (Carr and Way, 1994).

In North Africa/West Asia/Europe, the length of the childbearing period ranges from 10 years in Turkey to 17 years in Yemen. An average woman in this region has her first birth around 21 years of age and her last birth around 33 years of age. In Central Asia, the childbearing period is the shortest, ranging from 8 years in Kazakhstan to 11 years in the Kyrgyz Republic and Uzbekistan. Women in this region have their first birth around 22 years of age and their last birth around age 32. In South/Southeast Asia, women have their first birth at around 20 years of age and continue childbearing for around 13 years to about 33 years of age. In Latin America and the Caribbean, a woman typically has her first birth at around 21 years of age and continues having children for about 12 years to about 33 years of age (Figure 4.25).

Figure 4.25 Duration of childbearing period

Average number of years between first and last birth among ever-married women age 40-49 with 2+ births



4.2.2.2 Breastfeeding Practices

Optimal breastfeeding practices are important not only for child health but also for maternal health by supporting child spacing and women's nutrition. Optimal breastfeeding practices include (but are not limited to) putting the infant to the breast within 30 minutes after delivery, exclusively breastfeeding for about six months, and continuing to breastfeed for at least two years.

In the context of women's health, breastfeeding shortly after delivery helps the uterus retract and hence reduce postpartum blood loss to the mother. Fertility is influenced by breastfeeding through lactational amenorrhea that is supported by exclusive breastfeeding, thereby prolonging protection against a subsequent pregnancy. In addition, lactational amenorrhea enables a woman to recover her iron stores lost in pregnancy and reduces the chances of developing anemia (Stoltzfus, 1994). A mother's ability to adequately breastfeed is affected by her nutritional status, but at the same time, the mother's nutritional status is affected by breastfeeding. Breastfeeding can add to maternal nutritional stress, requiring

additional energy and micronutrients, which can put demands on a mother's fat stores and micronutrient reserves (Baker et al., 1996). However, increases in caloric intake and micronutrient supplementation can offset maternal nutritional demands. The benefits of breastfeeding for both mother and child outweigh the possible maternal nutritional stress of lactation (Huffman, 1991).

In all but two countries surveyed, over 90 percent of children born in the three years preceding the survey were breastfed. The lowest rates for children ever breastfed are in Gabon (86 percent) and the Philippines (89 percent) (Table A.4.16).

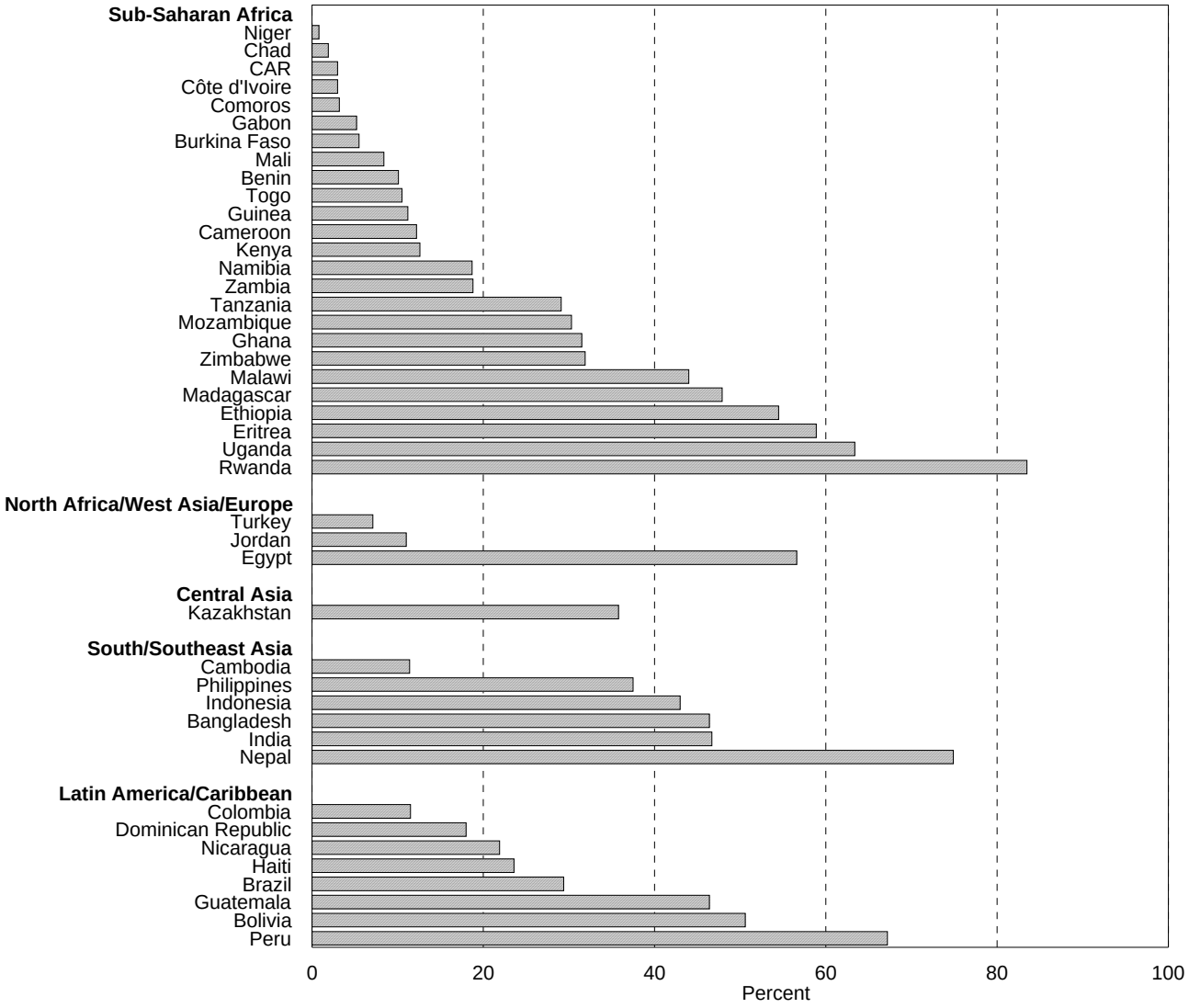
Exclusive breastfeeding

Figures for exclusive breastfeeding (defined here as a child being given breast milk only in the past day or night) in the first six months of life are shown in Table A.4.17. Exclusive breastfeeding has a positive hormonal effect on the mother, suppressing fertility and influencing the length of the birth interval (Gray et al., 1987; Short, 1984). Examining exclusive breastfeeding practices over time, it can be seen that this indicator is driven by the higher rates of exclusive breastfeeding in the early months after birth, particularly the first two months (Mukuria, 2003). Nevertheless, exclusive breastfeeding for a full six-month period is not widely practiced. In 29 of 43 countries, less than 40 percent of children under six months are exclusively breastfed.

In sub-Saharan Africa, the proportion of children less than six months of age who are exclusively breastfed ranges from less than 1 percent in Niger to a high of 84 percent in Rwanda. In 15 of the 25 countries in this region, less than 20 percent of children under age six months are exclusively breastfed. In North Africa/West Asia/Europe, the prevalence of exclusive breastfeeding ranges from 7 percent in Turkey to 57 percent in Egypt. In Central Asia, data are only available for one country, Kazakhstan (36 percent). In South/Southeast Asia, the rate ranges from a low of 11 percent in Cambodia to a high of 75 percent in Nepal. Exclusive breastfeeding varies widely in the Latin America and the Caribbean region, from a low of 12 percent in Colombia to a high of 67 percent in Peru (Figure 4.26).

Figure 4.26 Exclusive breastfeeding

Percentage of youngest children under six months living with their mother who were exclusively breastfed



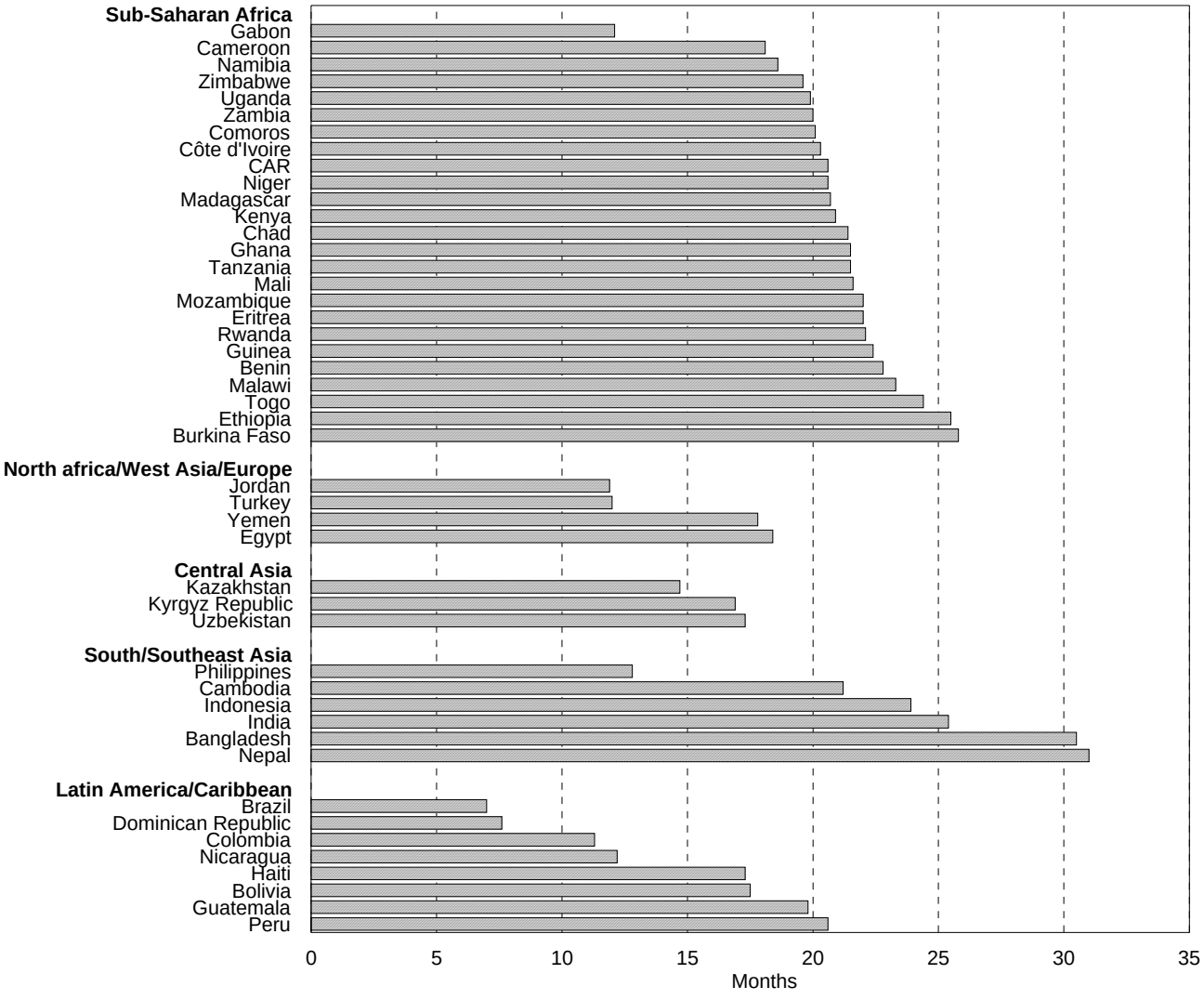
Median duration of breastfeeding (living children under age 3)

It is internationally recommended that breastfeeding continue through the second year of life. The duration of breastfeeding in DHS surveys is calculated from current breastfeeding status data. For each month of age, the percentage of children breastfeeding is derived by dividing the number of children breastfeeding by the total number of children born the same number of months ago. The median is derived (usually by interpolation) by identifying the age at which 50 percent of the sample children under age three are no longer breastfeeding (Table A.4.16). This method is preferred over mothers' reports of breastfeeding duration among fully weaned children because of biases in recall (Haggerty and Rutstein, 1999).

In sub-Saharan Africa, the median duration of any breastfeeding ranges from 12 months in Gabon to 26 months in Burkina Faso. In North Africa/West Asia/Europe, it ranges from 12 to 18 months. Central Asia has a median duration of about 16 months. South/Southeast Asia has a much longer median duration of breastfeeding (over 20 months), except in the Philippines, where the median duration is about 13 months. Bangladesh and Nepal stand out as having a median duration of breastfeeding of over 30 months. Countries in Latin America and the Caribbean have much shorter median durations of breastfeeding, ranging from 7 months in Brazil to 21 months in Peru (Table A.4.15 and Figure 4.27).

Figure 4.27 Median duration of breastfeeding

Median duration (months) of any breastfeeding among children born in the three years preceding the survey who were ever breastfed



4.2.2.3 Child Spacing and Family Planning

Duration of postpartum amenorrhea, abstinence, and insusceptibility

Postpartum amenorrhea refers to the interval between childbirth and the return of menstruation. This is the period during which a woman becomes temporarily infecund following childbirth. There is a direct relationship between the length and intensity of breastfeeding and the duration of postpartum amenor-

rhea. Postpartum abstinence refers to the period of voluntary sexual inactivity after childbirth. 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 following a birth. Women who gave birth during the three years preceding the survey were asked about the duration of amenorrhea and the duration of sexual abstinence following childbirth.

Table A.4.18 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility. Sub-Saharan countries have the longest median durations of postpartum amenorrhea (ranging from 7 months in Comoros to 19 months in Ethiopia) and insusceptibility (ranging from 8 months in Comoros to 23 months in Burkina Faso). North Africa/West Asia/Europe has the shortest period of insusceptibility of all of the regions (from 4 months in Jordan, Egypt, and Turkey to 6 months in Yemen). Postpartum abstinence is more widely practiced in sub-Saharan Africa (from less than 1 month in Rwanda to 22 months in Guinea) than in other regions (from 2 to 3 months) (Figures 4.28 through 4.30).

Figure 4.28 Median duration of postpartum amenorrhea
Median number of months of postpartum amenorrhea following births in the three years preceding the survey

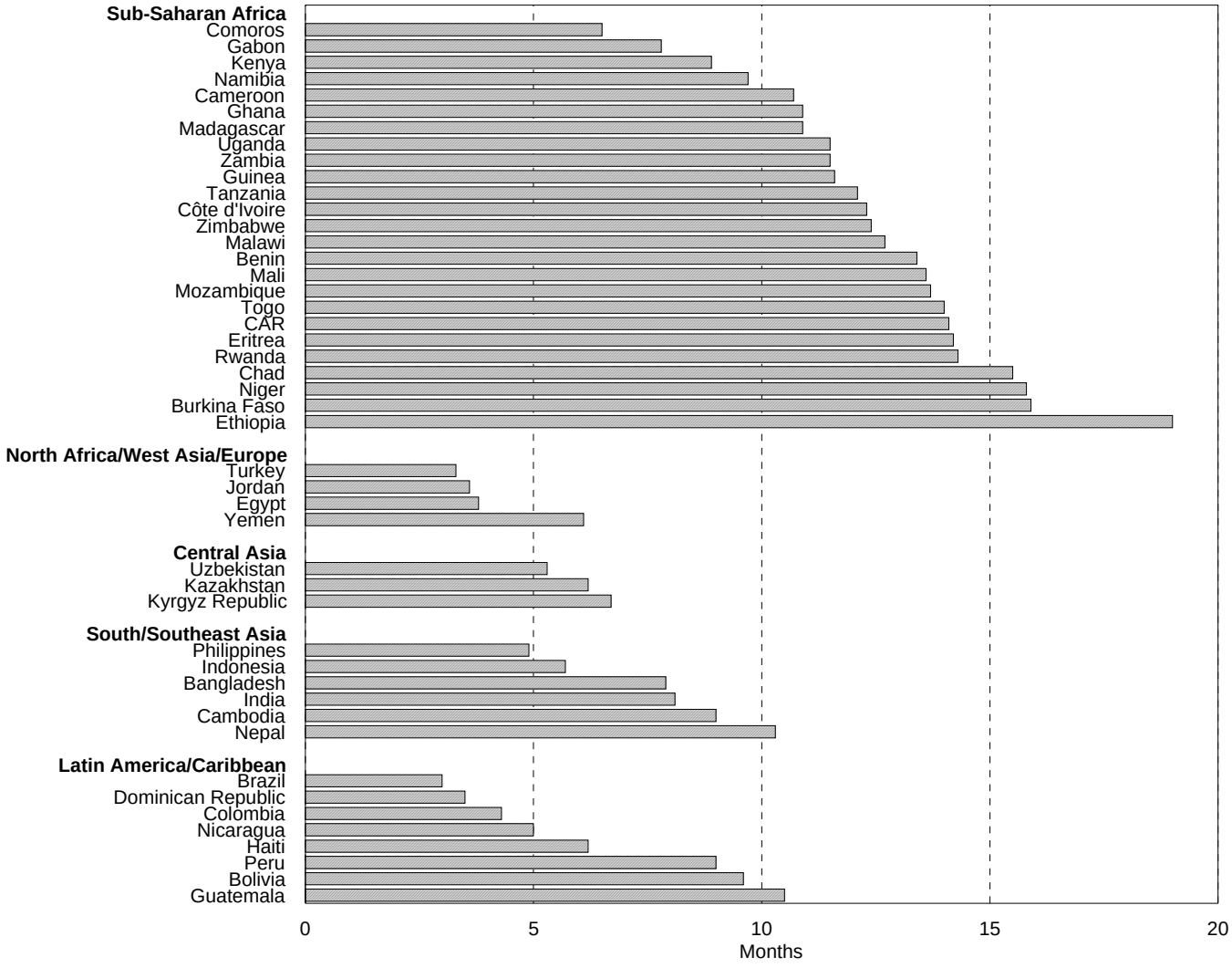


Figure 4.29 Median duration of postpartum abstinence

Median number of months of postpartum abstinence following births in the three years preceding the survey

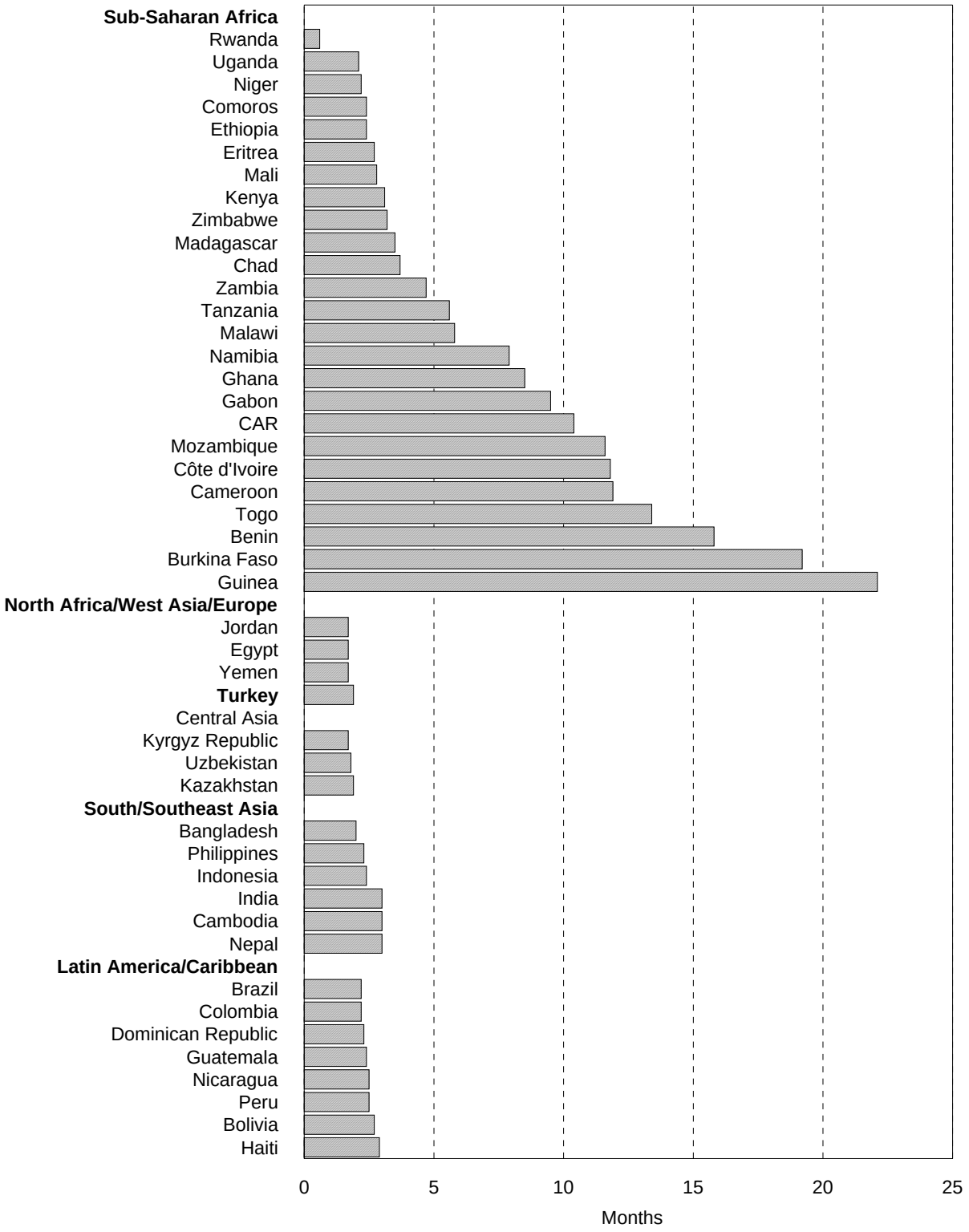
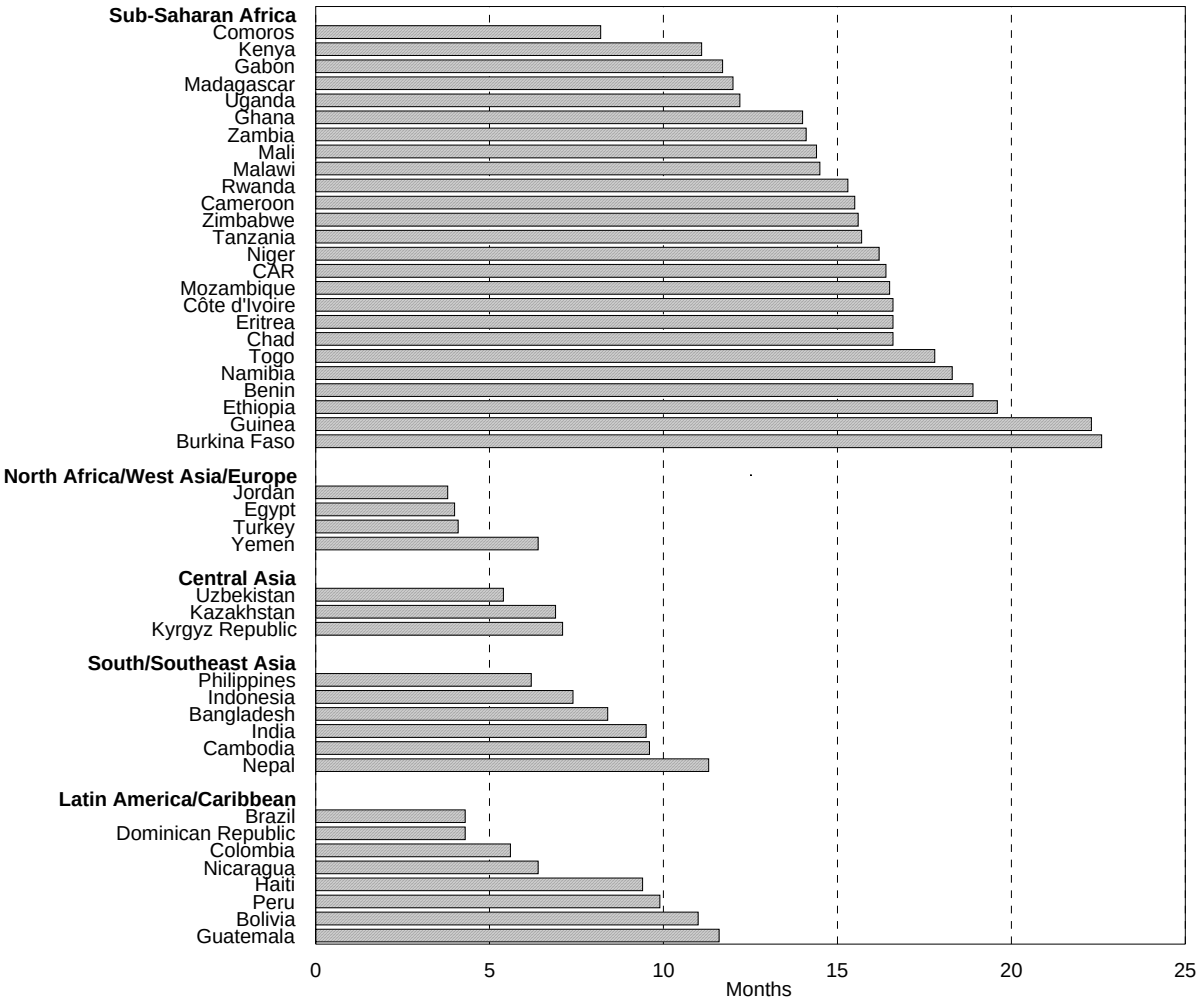


Figure 4.30 Median duration of postpartum insusceptibility

Median number of months of postpartum insusceptibility following births in the three years preceding the survey



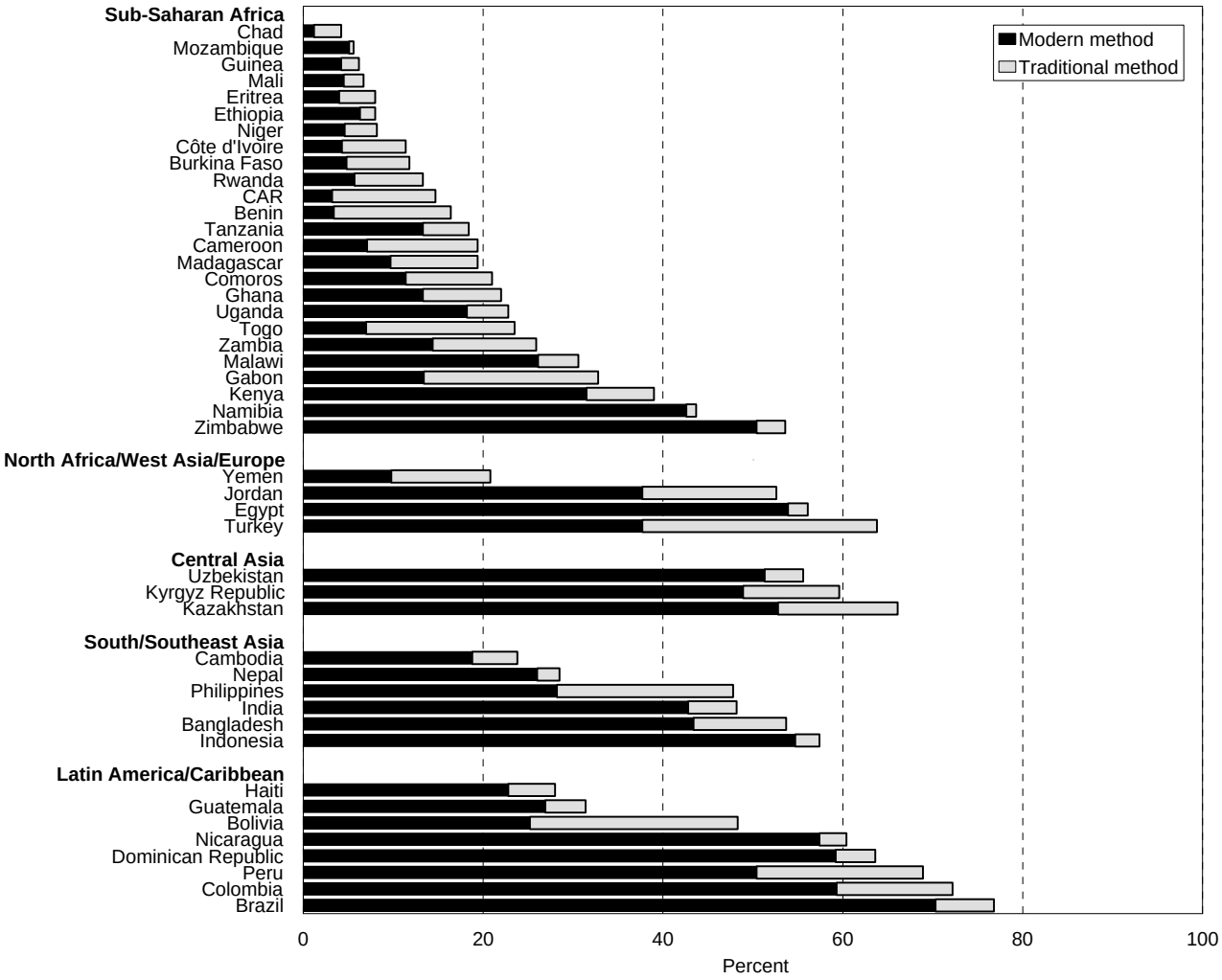
Current Use of Contraception

DHS surveys collect data on the level of contraceptive use, which is defined as the percentage of currently married women age 15-49 who are using any contraceptive method. Table A.4.19 shows the percentage of currently married women who are currently using either a modern or a traditional method of family planning.

Although rates of contraceptive use are at an all time high, countries in sub-Saharan Africa have the lowest rates, with most being below 30 percent. In some countries such as Rwanda and Togo, contraceptive prevalence rates decreased from previous levels (Carr and Way, 1994). Traditional methods of family planning continue to be important in most countries in sub-Saharan Africa. For most countries in the other regions, 50 percent or more of currently married women use family planning. However, in each region, there are exceptions where rates of 30 percent or less are found in one or two countries. In North Africa/West Asia/Europe, use of traditional methods continues to be important except in Egypt, where traditional methods account for only 2 percent of current use. In Central Asia, traditional methods are not as important as in other regions. In South/Southeast Asia, traditional methods are of greatest importance in the Philippines, where they contribute to 41 percent of contraceptive use. Bolivia and Peru are the only countries in the Latin America and Caribbean region where traditional methods contribute substantially to current use of family planning (Figure 4.31).

Figure 4.31 Current use of contraception

Percentage of currently married women age 15-49 currently using a contraceptive method (modern or traditional method)

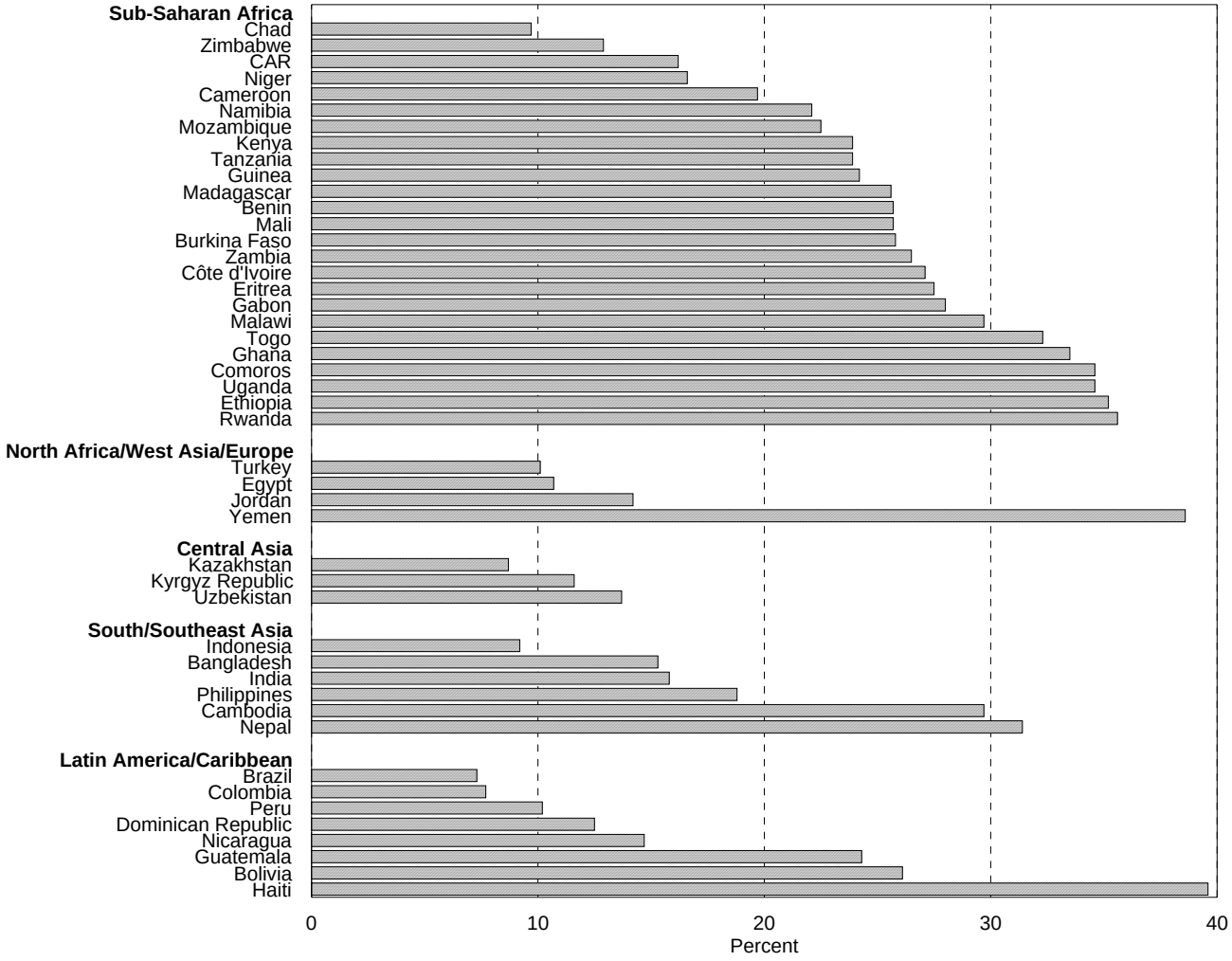


Unmet Need for Contraception

Women are said to have an unmet need for contraception if they stated that they would like to stop having children or wanted to wait at least two years before their next birth and were not using contraception (Table A.4.20). Haiti, at 40 percent, has the highest rate of unmet need, followed by Yemen (39 percent). Overall, sub-Saharan Africa has the highest level of unmet need: in 15 of the 25 countries, more than 25 percent of currently married women have an unmet need for family planning (Figure 4.32).

Levels of unmet need are low where contraceptive use is widespread—for example, in Central Asia, and in Brazil and Colombia in Latin America and the Caribbean. On the other hand, some countries such as Chad have both a low level of unmet need (10 percent) and a low rate of contraceptive use (4 percent), indicating little desire to limit fertility (Figure 4.32).

Figure 4.32 Unmet need for family planning or child spacing
Percentage of currently married women age 15-49 who had a live birth in the three years preceding the survey and who have an unmet need for family planning or child spacing



4.2.2.4 Utilization of Health Care Services

Utilization of health care services provides an opportunity for women to obtain critical health and nutrition information and services. Access to emergency maternity care means the difference between life and death in complicated deliveries. Measures of access to and utilization of health services include the use of antenatal care services, receipt of tetanus toxoid and iron supplementation (discussed previously), and the use of delivery care services. Exposure to HIV/AIDS prevention information takes place primarily through the health sector in developing countries. Demonstrated knowledge and awareness of HIV/AIDS prevention is a measure of women's access to and utilization of health education.

Antenatal Care

Underutilization of antenatal care is associated with suboptimal pregnancy outcomes. The most common of these in developing countries is low birth weight. Antenatal care should be part of a multipronged approach to improve pregnancy outcomes. Such an approach includes family planning services, increasing women's access to health care, and improving the socioeconomic status of women (AbouZahr and Wardlaw, 2003). Improving women's nutrition is also an important contribution to antenatal care (Villar et al., 2003).

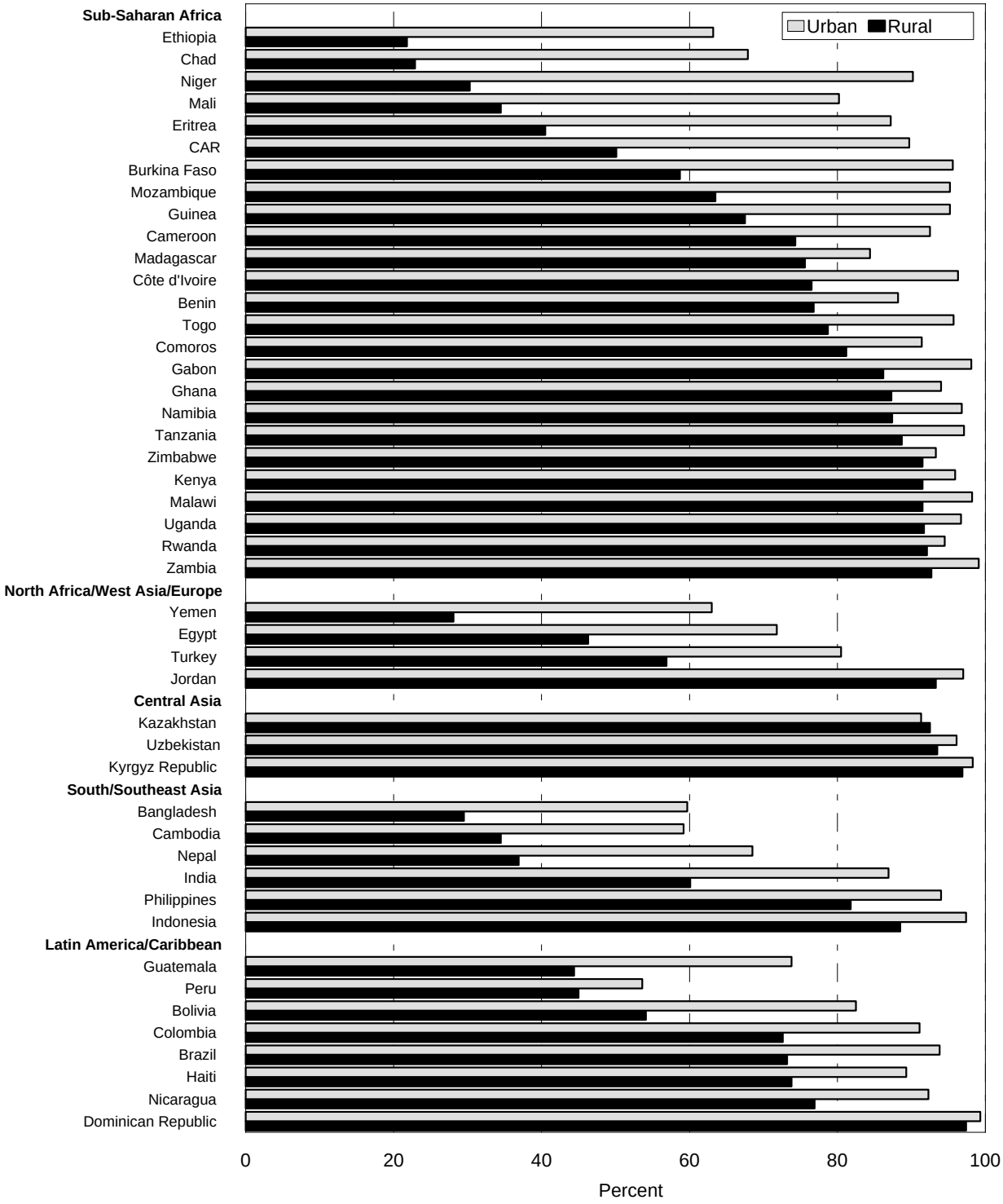
In surveys conducted before 1998-99, women were asked about antenatal care for all pregnancies associated with live births in the five years preceding the survey. From about 1999 on, information was collected only for the last live birth. For comparative purposes in this report, the results are based on the respondent's last live birth in the three years preceding the survey. The results are presented by urban-rural residences for women who had at least one antenatal care visit with a trained health professional and those who had four or more antenatal care visits. There are large inter- and intracountry differences in the use of antenatal care services.

In Table A.4.21, the percentage of women in sub-Saharan Africa who had at least one antenatal visit with a trained health professional ranges from 26 percent in Ethiopia to 95 percent in Zambia. In North Africa/West Asia/Europe, the range is also quite broad, from 36 percent in Yemen to 96 percent in Jordan. Central Asia has the highest coverage of antenatal care: over 90 percent in all of the countries surveyed. South/Southeast Asia has levels of antenatal care use similar to sub-Saharan Africa and North Africa/West Asia/Europe, ranging from 38 percent in Bangladesh to 91 percent in Indonesia. Latin America and the Caribbean has a narrower spread, from 71 percent in Bolivia to 99 percent in the Dominican Republic.

Figure 4.33 shows the percentage of women who reported having at least one antenatal visit with a trained medical professional by urban-rural residence. In 11 of the 46 countries, there is at least a 30 percentage point difference between urban and rural women in reporting at least one antenatal visit with a trained medical professional (Table A.4.21). Kazakhstan stands out as the only country having higher coverage in rural areas than in urban areas. In countries with more accessible preventive health services, the urban-rural differential in access to antenatal care is less pronounced (Rwanda, Zimbabwe, Gyrgyz Republic, Uzbekistan, and the Dominican Republic).

Figure 4.33 Antenatal care by area of residence

Percentage of women age 15-49 who had a live birth in the three years preceding the survey and who received at least one antenatal care visit with a trained medical professional (doctor, nurse, midwife) during pregnancy for the most recent birth, by urban-rural residence

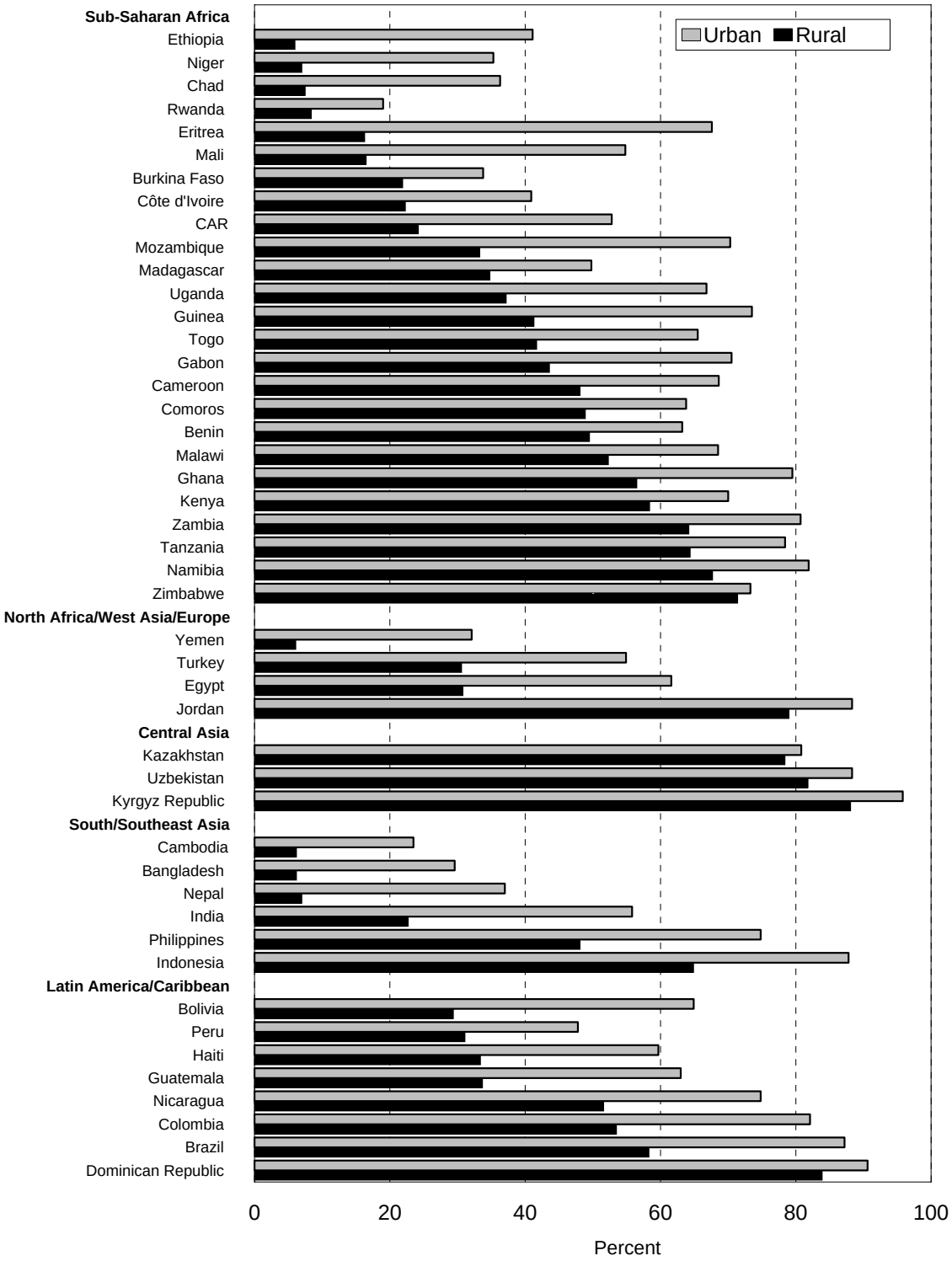


WHO recommends a minimum of four antenatal care visits for normal pregnancies. In Table A.4.21, the proportion of mothers in sub-Saharan Africa who have had at least four antenatal visits ranges from 9.6 percent in Ethiopia to 73 percent in Namibia. In 12 of 25 countries in this region, at least 50 percent of women report having received four or more antenatal care visits. Central Asia has the highest coverage of WHO-compliant antenatal care visits, from 79 percent in Kazakhstan to almost 90 percent in the Kyrgyz Republic. South/Southeast Asia and North Africa/West Asia/Europe have variable rates of coverage across countries. Only two countries in South/Southeast Asia (Indonesia and the Philippines) and only one country in North Africa/West Asia/Europe (Jordan) have rates over 50 percent. The proportion having four or more antenatal care visits in the Latin America and Caribbean countries ranges from 42 percent in Haiti to 88 percent in the Dominican Republic (Table A.4.21).

In much of the developing world, at least 50 percent of women are having four or more antenatal care visits but many more need to be reached with services. Those in rural areas and those with less education or who live in poorer households have been found to utilize antenatal care less than other women (AbouZahr and Wardlaw, 2003). Urban-rural differences are 30 percent or greater in 12 of 46 countries (Figure 4.34). Although antenatal care has not been proven to be effective in reducing maternal mortality or serious morbidities in developing country settings, there are components that are effective in detecting, treating, or preventing conditions in pregnant women that may give rise to serious morbidity or death. These components that improve maternal health include prevention and treatment of anemia through iron supplementation and malaria prophylaxis, as well as infection prevention and treatment through tetanus immunization and management of sexually transmitted infections (Carroli et al., 2001). Iron supplementation during pregnancy was previously reported in the micronutrient section. Tetanus immunization is discussed below.

Figure 4.34 Antenatal care visits by urban-rural residence

Percentage of women age 15-49 who had a live birth in the three years preceding the survey and who had at least four antenatal care visits during pregnancy for the most recent birth, by urban-rural residence

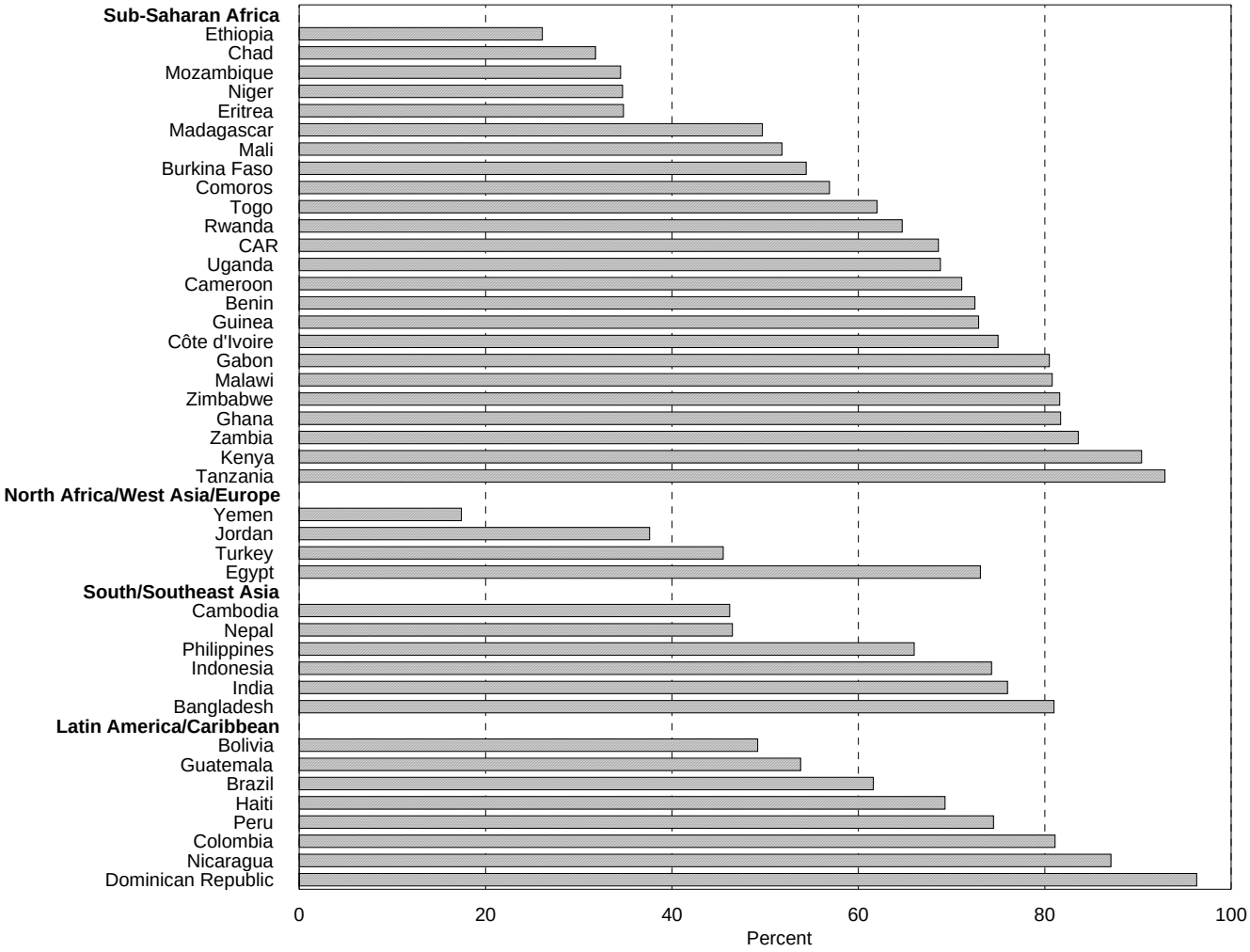


Receipt of Tetanus Toxoid

One of the most successful interventions in pregnancy is the introduction of maternal vaccination to prevent maternal and neonatal tetanus from occurring as a result of infection at delivery. A woman is expected to receive two doses of tetanus toxoid during pregnancy for full protection. However, if a woman has been fully vaccinated during a previous pregnancy, she may require only one dose for the current pregnancy. Five doses are considered adequate to provide lifetime coverage. To estimate the extent of tetanus toxoid coverage during pregnancy, DHS surveys collect data on the number of tetanus injections women received during pregnancy for the most recent birth in the three years preceding the survey. These results are presented in Table A.4.21 and Figure 4.35. The data may underestimate the actual extent of protection against tetanus because women who received prior vaccinations may not have been given additional injections, as they were considered adequately covered.

Figure 4.35 Tetanus immunization during pregnancy

Percentage of women age 15-49 who had at least one tetanus toxoid injection during the pregnancy for the most recent birth in the three years preceding the survey



In sub-Saharan Africa, the proportion who received at least one tetanus toxoid vaccination during their last pregnancy ranges from 26 percent in Ethiopia to 93 percent in Tanzania. One-third of the countries in sub-Saharan Africa have rates between 60 and 80 percent. Another 38 percent have rates less than 60 percent. There are seven countries where more than 80 percent of mothers reported having received at least one tetanus toxoid injection during their last pregnancy. No data were available for Namibia.

In North Africa/West Asia/Europe, tetanus toxoid vaccination varies by country, from 17 percent in Yemen to 73 percent in Egypt. There are no data for the Central Asian countries. In South/Southeast Asia, coverage ranges from 46 percent in Cambodia to 81 percent in Bangladesh. In Latin America and the Caribbean, coverage ranges from 49 percent in Bolivia to 96 percent in the Dominican Republic.

Delivery Care

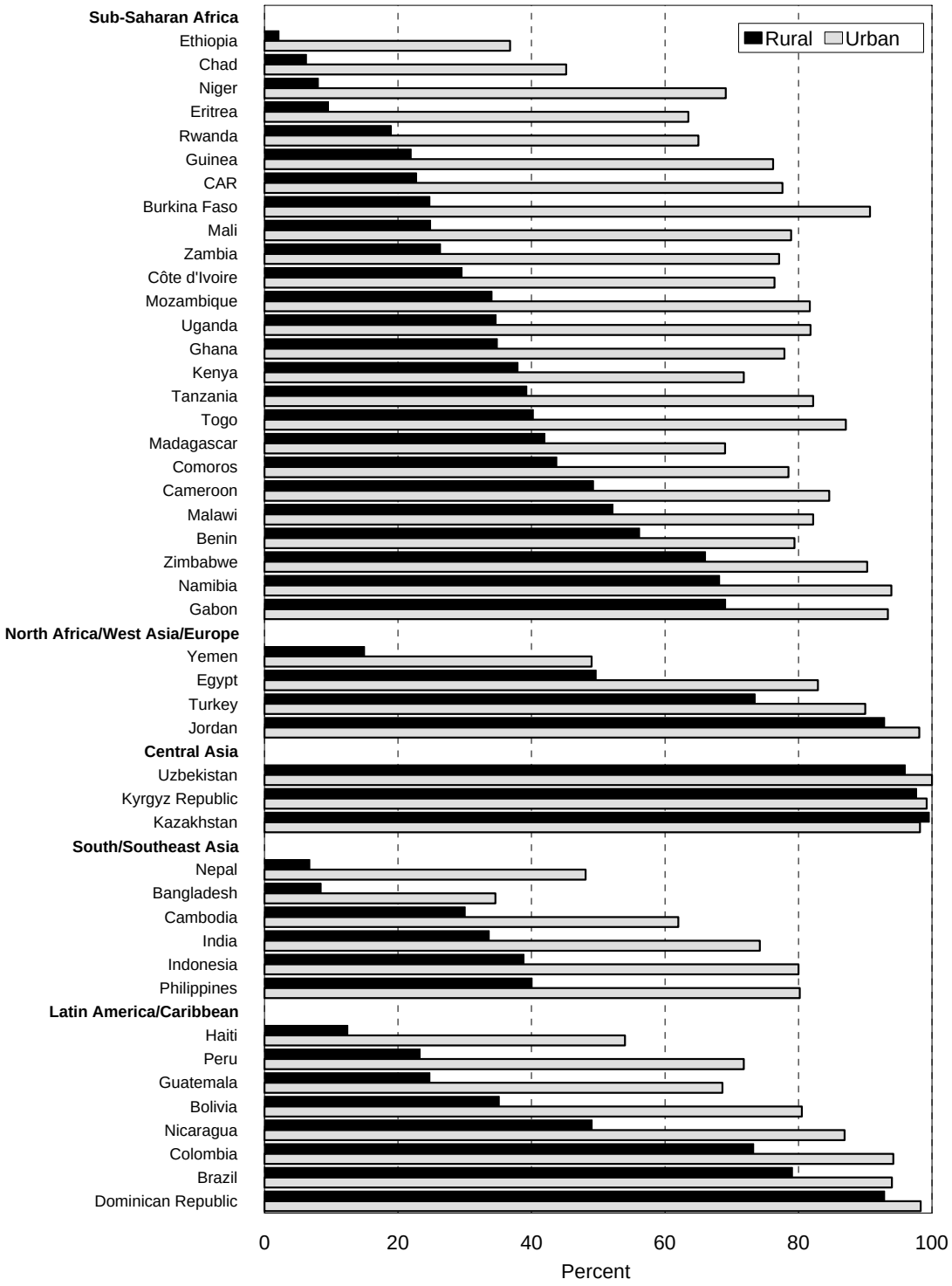
The main causes of maternal mortality include hemorrhage, obstructed labor, and puerperal infection. All of these conditions are responsive to improvements in the quality of coverage, utilization of services, and emergency access to delivery care. The type of assistance a woman receives during childbirth has important consequences for both the mother and the child. The presence of a skilled attendant at delivery is associated with lower levels of maternal mortality (De Browere et al., 1998). Women interviewed in DHS surveys were asked who assisted with the delivery of their last child born in three years preceding the survey. Table A.4.22 and Figure 4.36 show the percentage of women who received assistance from a trained medical professional (doctor, nurse, midwife) for their last live birth by urban-rural residence.

The percentage of women who received assistance from a trained medical professional for their last live birth ranges from 6 percent in Ethiopia to 99 percent in Kazakhstan. In two-thirds of the countries in sub-Saharan Africa and South/Southeast Asia, less than 50 percent of women reported using a trained medical professional for delivery. In the sub-Saharan region, 20 percent or fewer women had a medically trained professional assist with delivery in Ethiopia, Chad, and Niger. Nepal and Bangladesh, in South/Southeast Asia, also have fewer than 20 percent of women reporting that they were attended by a trained medical professional at delivery. In North Africa/West Asia/Europe, Yemen stands out with 23 percent, followed by Egypt with 63 percent. Women in Central Asia are most likely to have a trained medical professional at delivery, with coverage reaching over 97 percent in all countries. Use of a trained medical professional at delivery in Latin America and Caribbean countries varies from 27 percent of women in Haiti to 96 percent in the Dominican Republic.

Compared with antenatal care, urban-rural disparities are even greater in the use of a trained health professional to assist with the delivery of the last birth. Sub-Saharan Africa has the greatest disparities between women in urban and rural areas, and Central Asia has the least. In all but 4 countries, over 50 percent of urban women reported having the assistance of a medical professional at delivery; in contrast, at least 50 percent of rural women received medical assistance at delivery. In Central Asia, coverage for professional medical assistance at delivery is almost universal in both urban and rural areas (Figure 4.36).

Figure 4.36 Live births attended by a medical professional by urban-rural residence

Percentage of women age 15-49 who had a live birth in the three years preceding the survey and who received professional medical assistance for their most recent birth, by urban-rural residence



4.2.2.5 HIV/AIDS Prevention Awareness

The HIV/AIDS pandemic has taken a heavy toll on women. Over half of those currently infected are women, and almost six out of ten new HIV/AIDS cases are women. Nevertheless, it has been thought that women may be poorly informed about the prevention of HIV/AIDS because of gender-related socio-cultural barriers that deny or discourage their access to information about HIV/AIDS and because of their willingness to discuss such information (WHO, 2003). Information campaigns may not reach women because of low literacy (Figure 4.12 and Table A.4.7) or limited access to mass media (Figures 4.13 through 4.15 and Table A.4.8). In addition, condoms are often seen as a male contraceptive or are associated with illicit sexual activity. Some providers may not be willing to talk to women about condom use as a preventive measure for HIV.

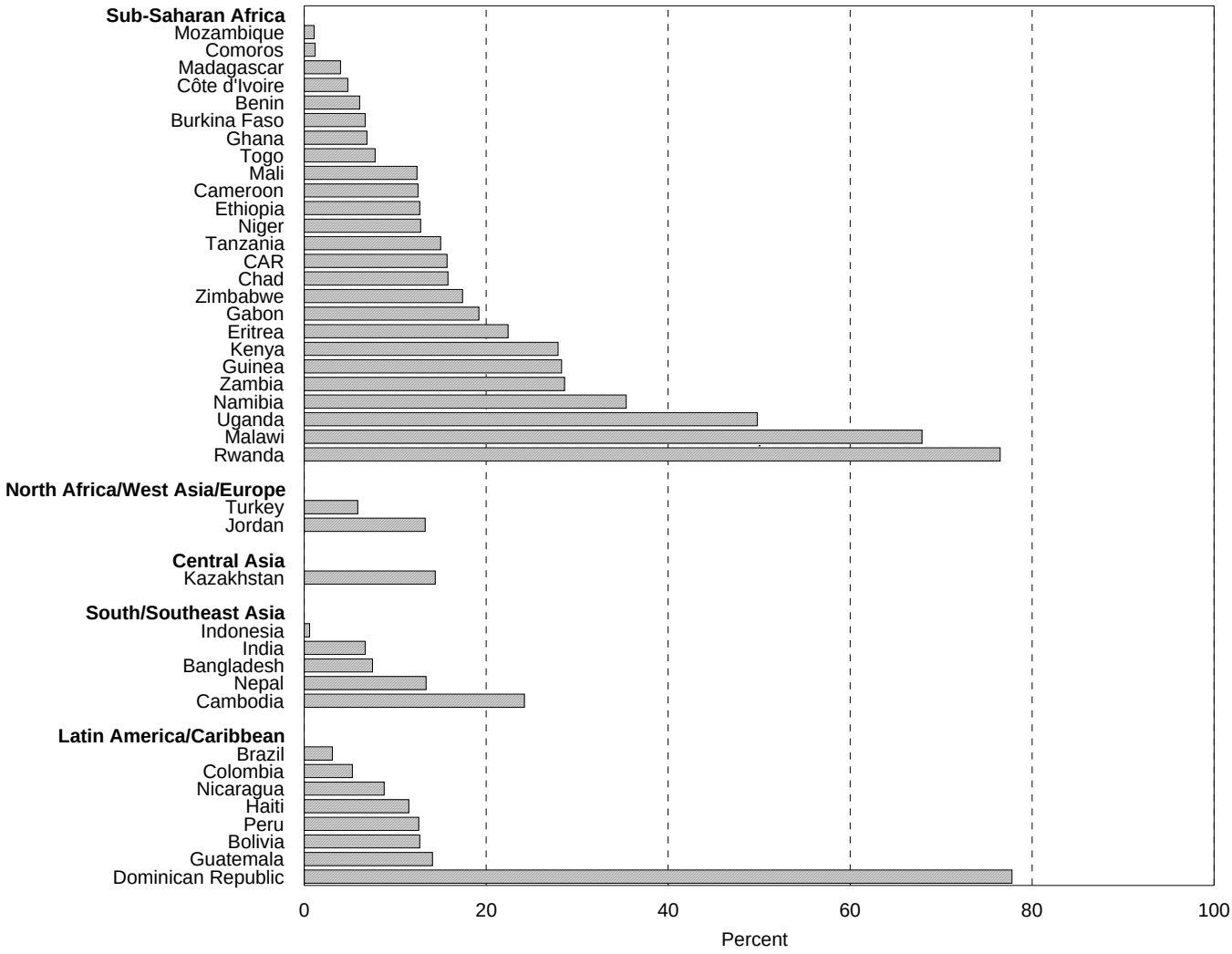
In an effort to reduce the sexual transmission of HIV/AIDS, prevention programs focus their messages on three key aspects of sexual behavior: the use of condoms, limiting the number of sexual partners or staying faithful to one partner, and abstinence. Women age 15-49 were asked whether they had heard of AIDS, and women who said that they had heard of AIDS were asked, "Is there anything a person can do to avoid getting AIDS, or the virus that causes AIDS? What can a person do?" All ways mentioned were recorded.

Table A.4.23 shows the percentage of women who reported that they had heard of AIDS, and among these, the percentage who reported that abstaining from sex, being faithful to one sex partner, and using condoms would prevent the spread of HIV/AIDS. In all of the regions except South/Southeast Asia, over 50 percent of women had heard of AIDS, and in 23 of the 41 countries with data, 90 percent or more of women had heard of AIDS. In South/Southeast Asia, there are countries where 40 percent or fewer women had heard of AIDS. Nepal has the lowest proportion (27 percent) of women who had heard of AIDS.

In 5 of the 41 countries where data were collected on HIV/AIDS prevention awareness, at least one-third of women who had heard of AIDS reported that abstaining from sex was a way of preventing HIV/AIDS; however, in 15 of the 41 countries, less than 10 percent of women reported abstinence as a means of preventing HIV/AIDS. This is, perhaps, because most of the women age 15-49 are married and hence abstinence is not a choice or a possible alternative. Nevertheless, in Rwanda, Malawi, and the Dominican Republic, 60 percent or more of the women reported abstinence as a way to avoid AIDS (Figure 4.37).

Figure 4.37 Knowledge of abstinence to prevent HIV/AIDS

Percentage of women age 15-49 who had heard about AIDS and said that people can reduce the risk of getting the AIDS virus by abstaining from sex



In most countries, a much larger percentage of women reported being faithful to one partner as a means of avoiding HIV/AIDS (Figure 4.38). Nevertheless, in a large majority of the countries, less than 50 percent of women with knowledge of HIV/AIDS reported being faithful to one partner as a means to avoid HIV/AIDS.

Figure 4.38 Knowledge of being faithful to one partner to prevent HIV/AIDS

Percentage of women age 15-49 who heard about AIDS and said that people can reduce the risk of getting the AIDS virus by having sex with just one partner who has no other partners

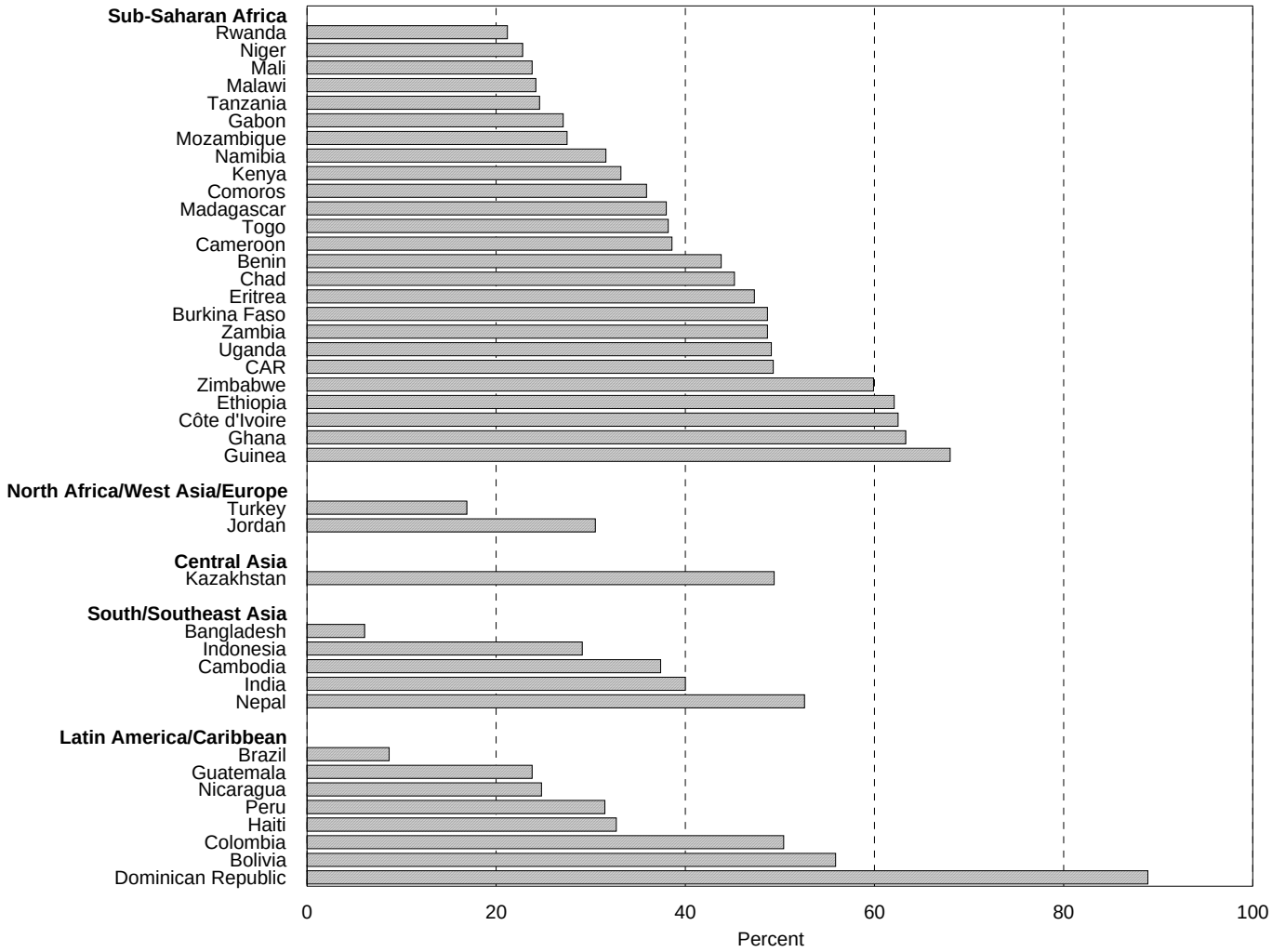
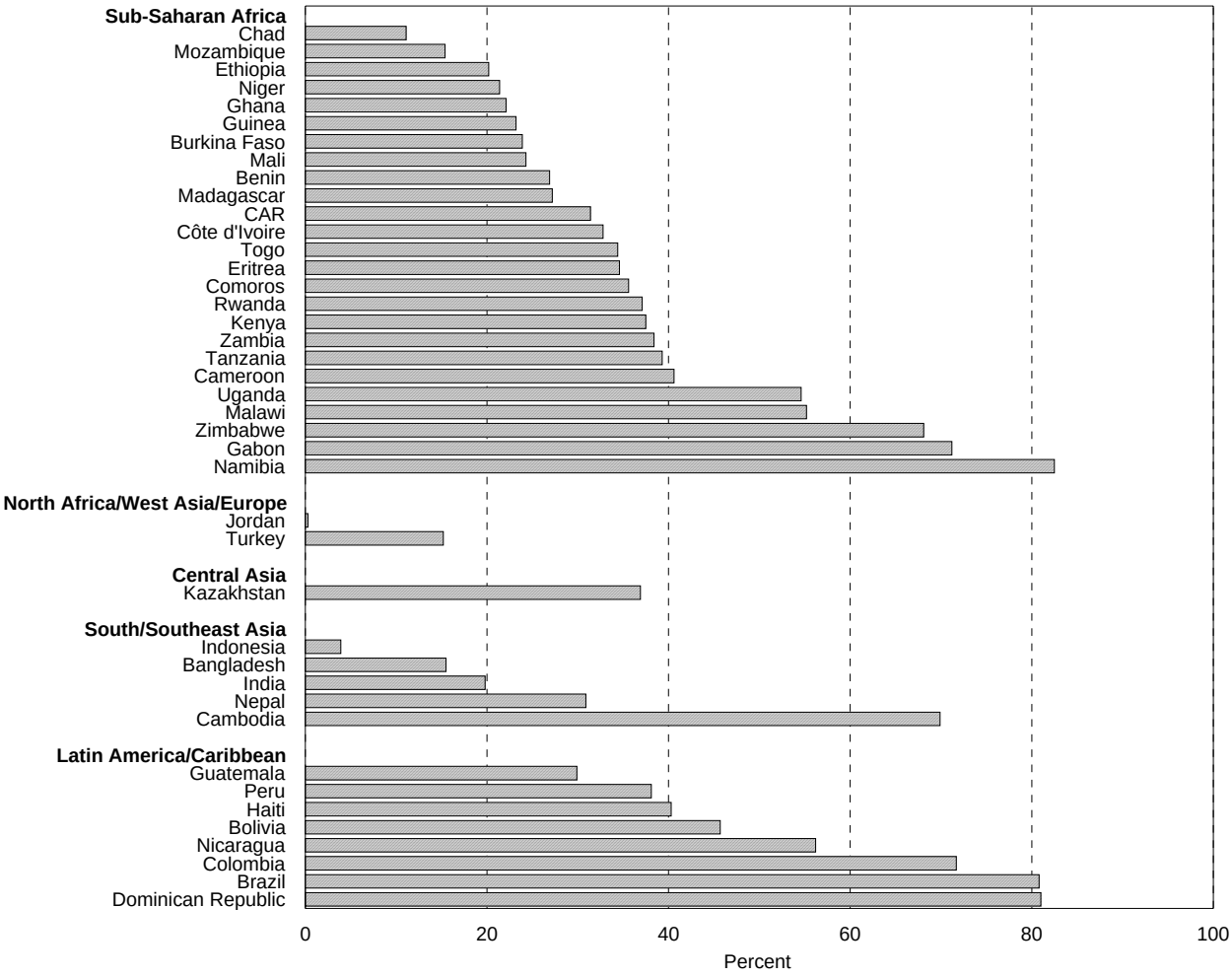


Table A.4.23 and Figure 4.39 show the proportion of women who reported using condoms as a way to avoid HIV/AIDS. In Brazil, the Dominican Republic, and Namibia, 80 percent or more of women who had heard of AIDS mentioned condom use as a way to avoid HIV/AIDS. The proportion reporting condom use is higher in Latin America and the Caribbean than in other regions, ranging from 30 percent in Guatemala to 81 percent in the Brazil and the Dominican Republic. In South/Southeast Asia, it ranges from a low of 4 percent in Indonesia to a high of 70 percent in Cambodia; and in sub-Saharan Africa, it ranges from 11 percent in Chad to 83 percent in Namibia. In 31 of 41 countries that collected these data, less then 50 percent of women were aware that condoms were a protective measure for HIV/AIDS.

Messages on how to prevent HIV/AIDS are not reaching many women in developing countries.

Figure 4.39 Knowledge of using condoms as a way to prevent HIV/AIDS
Percentage of women age 15-49 who had heard about AIDS and said that people can reduce the risk of getting the AIDS virus by using condoms



4.2.3 Environmental Context

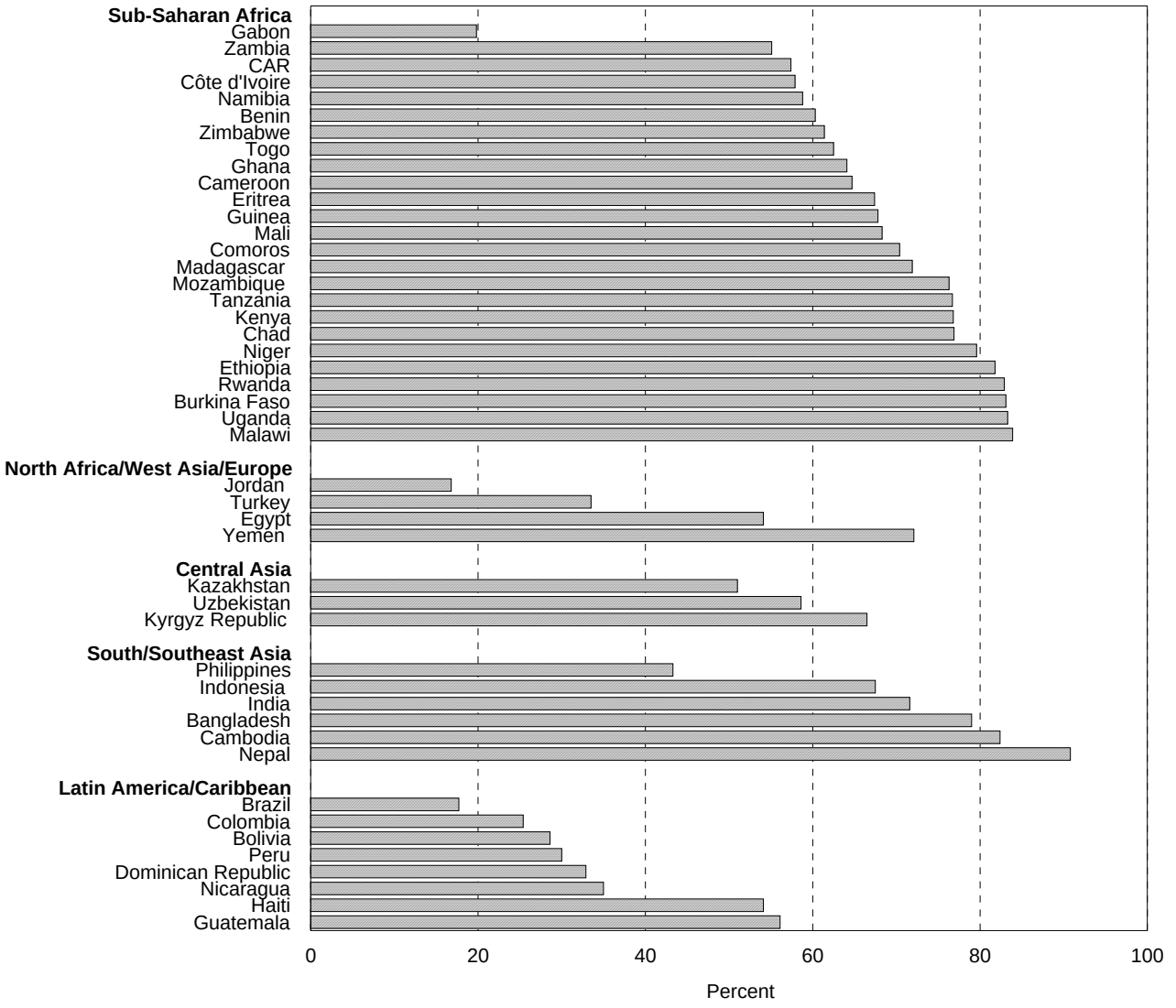
The environmental context describes the external living conditions of women, illustrating the potential impact of disparities in infrastructure between urban and rural areas and the extent to which women lack basic household amenities.

4.2.3.1 Residence

Infrastructure and essential resources vary between urban and rural areas in most countries; therefore, the potential impact of these disparities is seen in the distribution of women by residence. The living standards of women who reside in rural areas are much lower than those of women living in urban areas. Rural areas continue to be left behind in the benefits of economic and social progress that are experienced in urban areas (Sahn and Stifel, 2003). For example, the nutritional status of women usually varies by urban-rural residence. Low body mass index (BMI) and chronic energy deficiency (CED) occur more frequently among women living in rural areas, and overweight and obesity are more common among urban women (Martorell et al., 2000).

Most women in developing countries live in rural areas, except for Latin America and the Caribbean (Table A.4.24). In sub-Saharan Africa, more than 50 percent of women age 15-49 reside in rural areas, except for Gabon, where only 20 percent of women live in rural areas. In 5 of the 25 sub-Saharan countries, more than 80 percent of women live in rural areas (Figure 4.40).

Figure 4.40 Rural residence
Proportion of women age 15-49 years living in rural areas



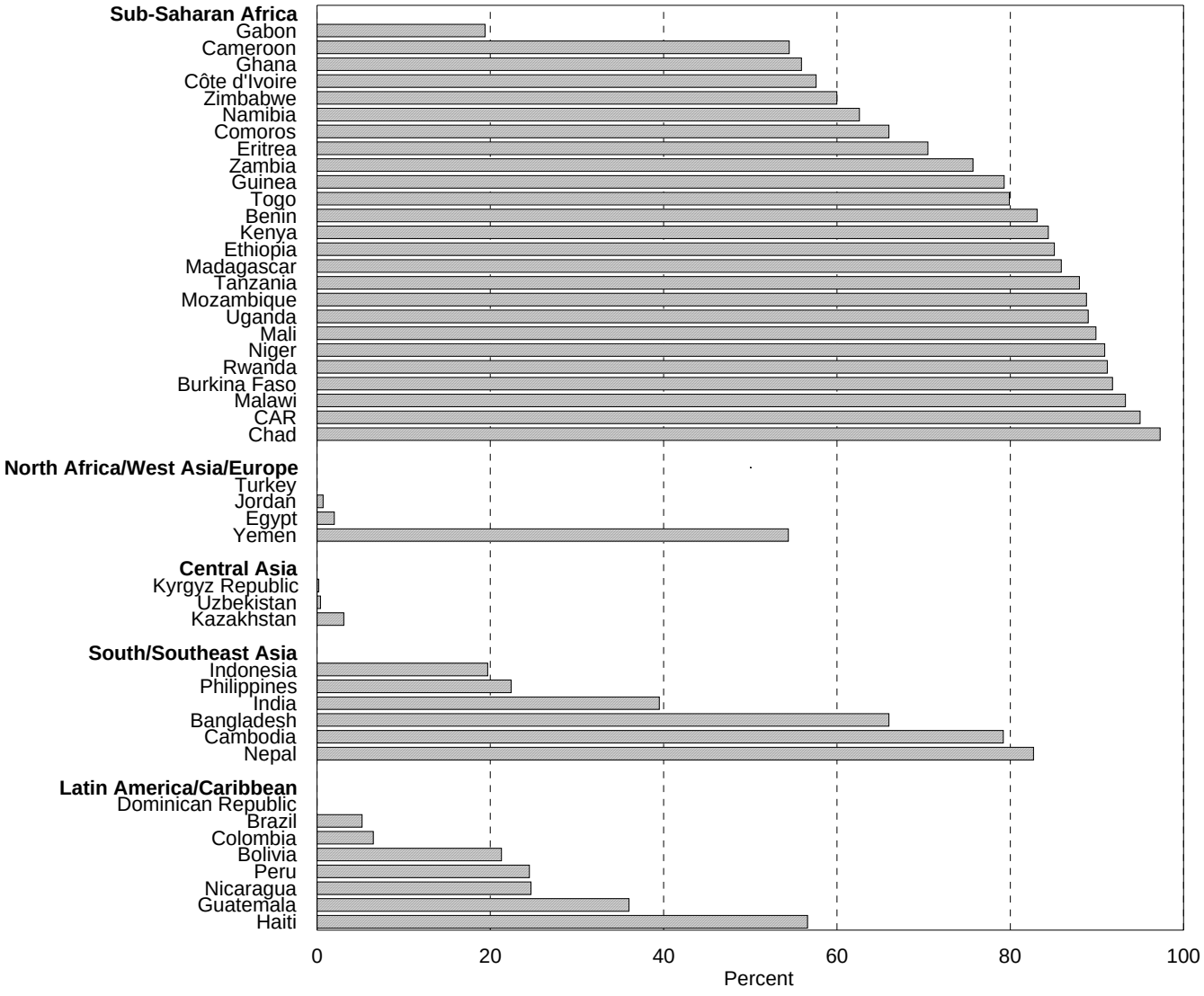
In North Africa/West Asia/Europe, women in Turkey and Jordan are more likely to live in urban areas (67 and 83 percent of women, respectively). However, in Egypt and Yemen, over 50 percent of women live in rural areas. In Central Asia, 50 percent or more of women reside in rural areas. In South/Southeast Asia, the proportion of women living in rural areas ranges from 43 percent in the Philippines to 91 percent in Nepal. Latin America and the Caribbean is the most urbanized region: only Haiti and Guatemala have levels of rural residence over 50 percent; 82 percent of Brazilian women live in urban areas (Figure 4.40).

4.2.3.2 Household Amenities

Women bear most of the responsibility for child care, cooking, and household maintenance. However, in developing countries they have few amenities to assist them. Table A.4.25 shows the percentages of women age 15-49 living in households without electricity, with dirt floors, without access to piped water, and without access to a toilet facility. In all countries in sub-Saharan Africa, except Gabon, the majority of women live in households without electricity. In 15 of the 25 countries, about 80 percent of women live in houses without electricity. In all countries in North Africa/West Asia/Europe, except Yemen, and in all of the countries in Central Asia, almost all women live in houses with electricity. In 4 of the 6 countries in South/Southeast Asia, at least 40 percent of women live in households without electricity. In Cambodia and Nepal, more than 79 percent of women live in homes without electricity. In Latin America and the Caribbean, Brazil, Colombia, and the Dominican Republic have less than 7 percent of women living in houses without electricity. In the remaining 5 countries in this region, the proportion without electricity ranges from 21 percent in Bolivia to a high of 57 percent in Haiti (Figure 4.41).

Figure 4.41 Lack of electricity

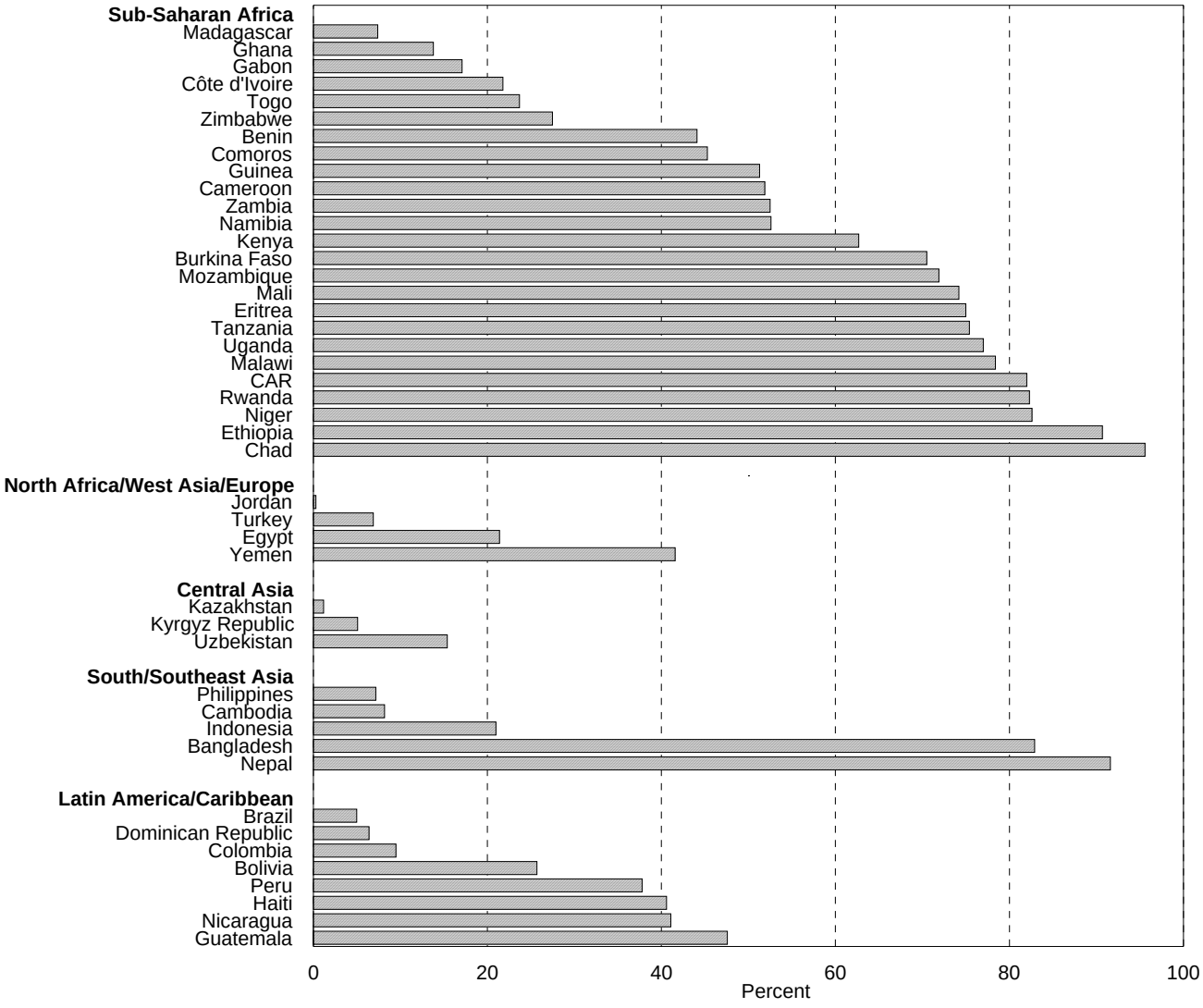
Percentage of women age 15-49 living in houses without electricity



Housing quality has implications for women's health. Poor housing increases the vulnerability of household members to communicable diseases. Damp housing provides environments that encourage the growth of mites, mold, and other conditions that lead to respiratory problems (WHO, 1997). The type of flooring is indicative of the quality of the housing (Table A.4.25). Earthen floors (dirt, dung, or sand) are most prevalent (60 percent or more) in houses in sub-Saharan Africa and in Bangladesh and Nepal in South/Southeast Asia. In about half of the countries in sub-Saharan Africa, more than 70 percent of women live in households with dirt floors. In half of the countries in Latin America and the Caribbean, about 40 percent or more of women live in households with earthen floors, as do women in Yemen in North Africa/West Asia/Europe (Figure 4.42). (India was not included because the flooring data are not comparable.)

Figure 4.42 Household flooring

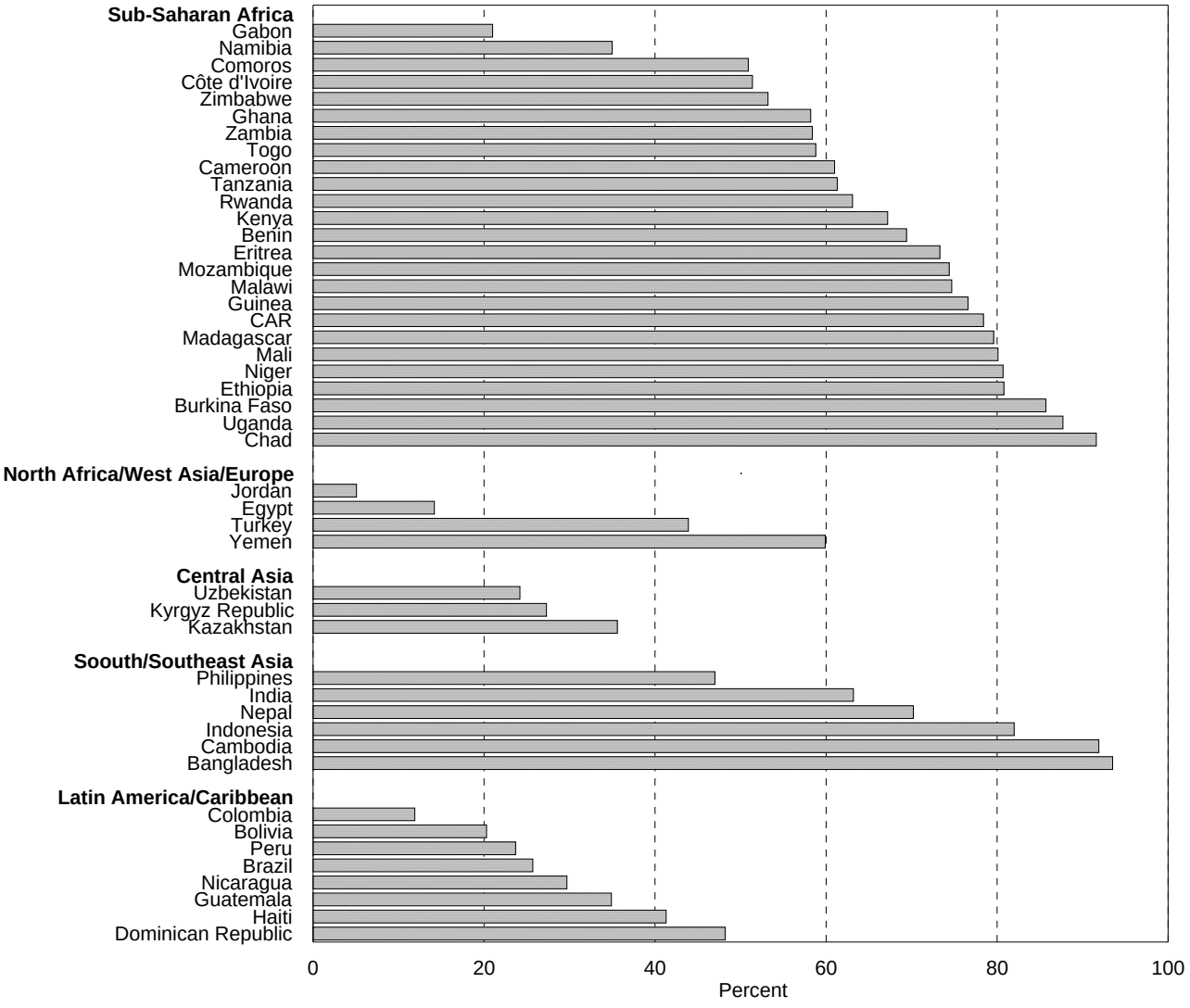
Percentage of women age 15-49 living in houses with dirt floors



Clean drinking water is essential for health. Piped water is considered the safest, compared with well water or water fetched from rivers or lakes. Moreover, women spend less time collecting and carrying water if it is piped (Table A.4.25). With ease of access to safe water, food is less likely to become contaminated, and more water is likely to be available for cleaning and personal hygiene. The majority of women live in households that do not have access to piped drinking water. This includes most countries in sub-Saharan Africa (over 60 percent of women in 17 of 25 countries) and South/Southeast Asia (over 60 percent of women in 5 of 6 countries). Turkey and Yemen also have large percentages of women living in households that do not have access to safe water. Even in Central Asia and Latin America and the Caribbean, more than 20 percent of women live in households that do not have access to piped water, with the exception of Colombia (Figure 4.43).

Figure 4.43 Lack of piped water

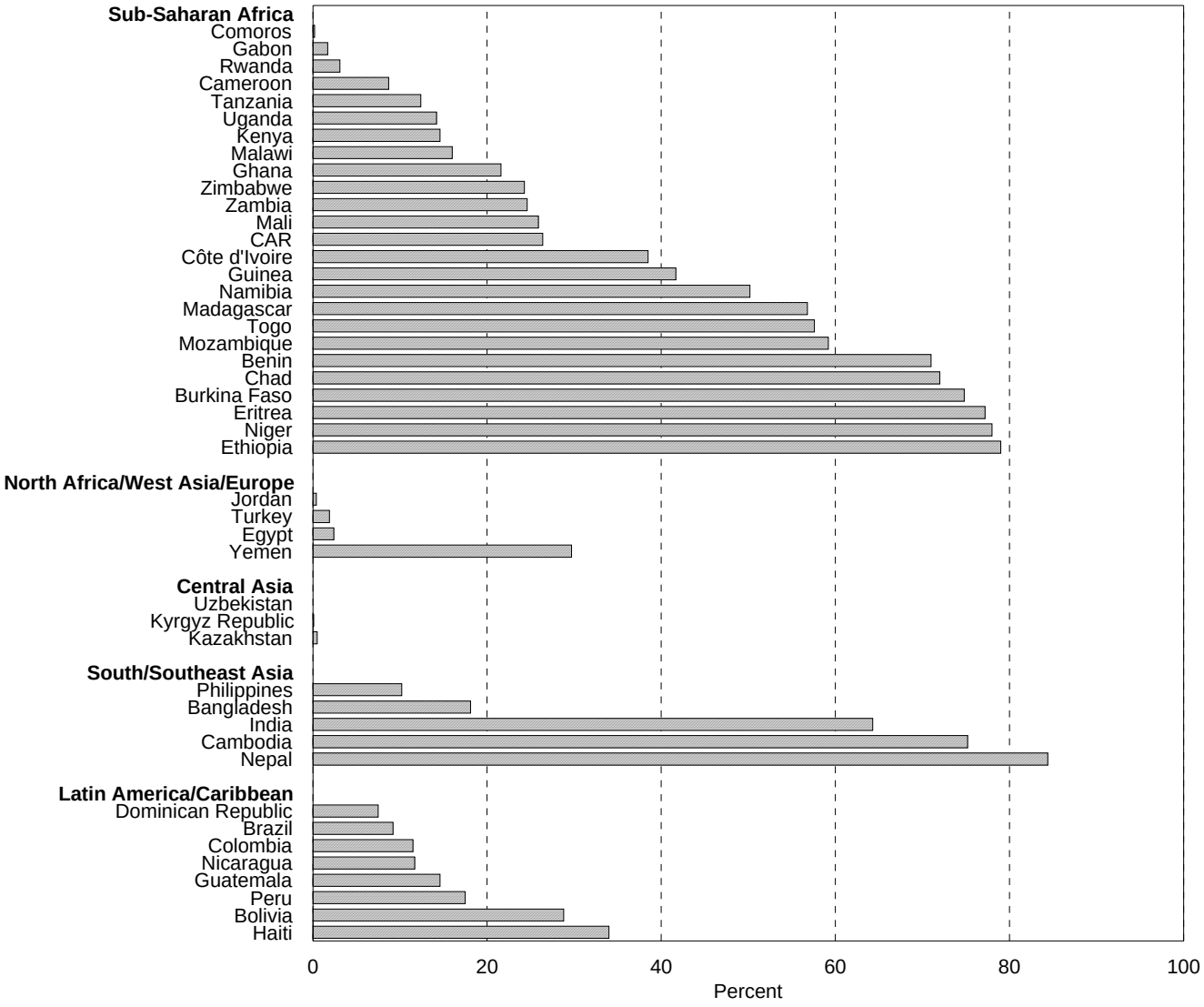
Percentage of women age 15-49 living in houses without piped water



The lack of sanitation facilities poses a serious public health problem. As part of the survey, the type of toilet facility used by the household was assessed, that is, whether the facility is a traditional latrine (pit or other) or modern flush toilet, or there is no facility (Table A.4.25). In two-thirds of the countries in sub-Saharan Africa, 20 percent or more of women live in households without access to any toilet facility; in 10 of the 25 countries, 50 percent or more of women are without access to a toilet facility. In 3 of the 5 countries in South/Southeast Asia, more than 64 percent of women live in households without access to any toilet facility. Women living in countries in Central Asia and North Africa/West Asia/Europe generally have access to facilities, except in Yemen, where 30 percent of women live in households without any toilet facility. Lack of access to toilet facilities in the Latin America and Caribbean region is low except in Bolivia (29 percent) and Haiti (34 percent) (Figure 4.44).

Figure 4.44 Lack of toilet facilities

Percentage of women age 15-49 living in households without access to sanitation facilities



5

Summary and Conclusions

This report describes the context of women's health in developing countries based on key indicators reported in the DHS surveys carried out in 46 countries in five world regions. An analysis of the context of women's health explores not only the status of maternal health, but also the social, behavioral, and environmental contexts that influence the lives and health of women.

5.1 Women's Health

Women's health, as measured by the maternal mortality ratio (MMR), levels of maternal nutritional status, and the rate of low birth weight babies among women age 15-49 is a reflection of the poverty and poor conditions under which many women live. Maternal mortality is highest in sub-Saharan Africa, averaging about 500 deaths per 100,000 live births, but the MMR reaches 1,000 in 4 of the 25 countries. South/Southeast Asia follows, with MMR ranging from 172 to 540 deaths per 100,000 live births. Although these rates are alarming, they do not tell the full story of maternal health. Many women die in childbirth, but many more survive and live in conditions that are detrimental to their health and that of their families.

Maternal nutrition is an important indicator of the health of women during a key period in their life. Short stature (less than 145 cm in height) is correlated with a higher risk of difficult delivery, stillbirth, and low birth weight infants. South/Southeast Asia and Latin America and the Caribbean have the most countries with more than 10 percent of mothers being less than 145 cm tall. Low body mass index (BMI <18.5) is an indicator of undernutrition or chronic energy deficiency (CED) in women. In a healthy population, 3 to 5 percent of women are expected to have a low BMI. However, South/Southeast Asia has the highest rates of undernutrition among women, followed by sub-Saharan Africa. With a prevalence of low BMI over 20 percent in most countries in South/Southeast Asia, the nutrition situation is serious, and in Bangladesh, it is critical (over 40 percent have a low BMI). In four countries in sub-Saharan Africa, the situation is also serious, and in Eritrea, the situation is considered critical. Yemen, in North Africa/West Asia/Europe, has a serious rate of undernutrition (26 percent). The other regions require nutrition monitoring or, at most, have low levels of nutritional status with undernutrition in women falling between 10 and 19 percent. Despite these levels of undernutrition, women in developing countries also experience overnutrition, particularly in North Africa/West Asia/Europe and Latin America and the Caribbean. In Central Asia and a few countries in sub-Saharan Africa, overweight in women reaches almost 20 percent.

Women suffer from undernutrition not only as a result of low or poor food intake, but also because of limited intake or bioavailability of micronutrients in food or inadequate utilization of available micronutrients because of infections and parasitic infestations. The major micronutrient deficiencies of concern are iron, vitamin A, and iodine. Iron-deficiency anemia is the most common form of nutritional deficiency. Hemoglobin testing had been carried out in 11 countries at the time this report was prepared. Anemia prevalence was 25 percent or more among women age 15-49. The highest proportion was found in Uzbekistan (60 percent), with Cambodia, India, and Haiti having rates over 50 percent. The high demand for iron in pregnancy is hard to meet through dietary intake of iron-rich foods alone; hence, it is recommended that pregnant women routinely receive iron supplements for at least three months during pregnancy. In half of the 23 countries with data on iron supplementation, 50 percent or more of women reported receiving iron supplementation during pregnancy.

Vitamin A is an essential micronutrient for the immune system. Night blindness is an indicator of severe vitamin A deficiency (VAD), and women are especially prone to it during pregnancy. Adjusted rates of night blindness range from 1 to almost 5 percent in the 12 countries that had data. A rate of 5 percent is considered a public health concern. VAD can be prevented by taking a high-dose vitamin A capsule in the first six to eight weeks after delivery. Vitamin A supplementation information was available for 12 countries. In 6 of the 12 countries, only about 11 percent of women received postpartum vitamin A supplementation.

Iodine-deficiency disorder is the single most common cause of preventable mental retardation and brain damage. A deficiency of iodine is known to cause goiter, infertility, and poor pregnancy outcomes. Data on the results of testing of household cooking salt were available for 27 of the 46 countries. In 10 of these 27 countries, less than one-third of women lived in households using salt with some level of iodization. A nation is considered to have adequate coverage of iodine fortification when at least 90 percent of households are found to be using iodized salt; only 8 of the 27 countries met this standard.

Maternal undernutrition is a major determinant of low birth weight (less than 2.5 kg) in infants, which is also influenced by illnesses (i.e., malaria, anemia, acute and chronic infections). High rates of low birth weight babies are considered an indicator of poor health and nutritional status in women. The 1990 World Summit for Children goal was for countries to have a prevalence of low birth weight babies of less than 10 percent. The goal is a long way from being met, with 27 of the 44 countries with available birth weight data having more than 10 percent of women giving birth to low birth weight children. Three countries—Yemen, India, and Haiti—have a prevalence greater than 20 percent.

5.2 Context of Women's Health

Three aspects of the context of women's health include the social, behavioral, and environmental conditions that make up women's lives. The social context of women's health includes measures of women's status and ability to access resources. The behavioral context is composed of the decisions and actions that influence fertility, and the environmental context illustrates the external living conditions of women: urban-rural residence, and the lack of household amenities.

5.2.1 Social Context

Social context indicators reflect the education, employment, marital status, and household headship experiences of women that influence their access to resources and information. Women's status indicators are likely to influence the health of women by the way they limit socioeconomic opportunities, fertility choices, nutritional status, and access and utilization of health services, along with other factors that may affect women's health (Defo, 1997:1029).

The current status of girls' education is used to explore the context of education for women. Girls' school attendance rates are lowest in sub-Saharan Africa, with 15 of 25 countries having less than 50 percent of girls age 6-10 currently attending school. A gender bias in girls' school attendance is evidenced by a girls-to-boys attendance ratio of less than 0.90 in 10 of 25 sub-Saharan countries, in Yemen (0.61) in North Africa/West Asia/Europe, and in Nepal (0.77) in South/Southeast Asia. Central Asia and Latin America and the Caribbean have the highest ratio of girls' attendance. However, only 70 to 76 percent of girls age 6-10 are attending school in Central Asia. By contrast, in 5 out of 8 countries in Latin America and the Caribbean, the rate of girls' school attendance is over 90 percent.

Female illiteracy is highest in sub-Saharan Africa, averaging over 50 percent, followed by South/Southeast Asia and North Africa/West Asia/Europe. Again, Yemen stands out in the North Africa/West Asia/Europe region, with a female illiteracy rate of 81 percent. With such high levels of illiteracy, exposure to mass media becomes an opportunity for women to become more informed, thereby enhancing their decisionmaking ability. As expected, regular newspaper reading is more widely practiced in regions where illiteracy is low. Hence, Central Asia has the highest level of newspaper reading,

followed by Latin America and the Caribbean. Television viewing is similar to newspaper reading, with the highest prevalences found in Central Asia. Countries in North Africa/West Asia/Europe have high levels of television viewing, except for Yemen. Countries in Latin America and the Caribbean have high levels (over 50 percent) of viewership, except for Haiti (31 percent). Weekly radio listening is widely practiced in Latin America and the Caribbean (greater than 60 percent), followed by sub-Saharan Africa, where weekly radio listening is over 50 percent in 9 of 25 countries. On the other hand, 50 percent of women in much of sub-Saharan Africa are not exposed to mass media at all. Overall, television viewing is the only mass media that has a prevalence of over 75 percent, and that is in only 10 of the 46 countries.

Employment can provide a means of empowerment by increasing a woman's status and autonomy. Large percentages of women in sub-Saharan Africa and in Cambodia and Nepal in South/Southeast Asia report that they are working. However, most of these women are working in agriculture. Working in the agricultural sector does not necessarily improve women's status, especially given its low level of pay, if any. In addition, the heavy workload associated with agriculture puts women at a greater risk of poor health. Since women who work have the double burden of both employment and domestic work, they have less time to take care of themselves or to seek health care when needed.

Marital status provides a mixed blessing for women. In developing countries, marriage may provide a sense of security and social support for women. At the same time, without deliberate efforts to control fertility, marriage increases a woman's exposure to pregnancy and the possible adverse outcomes. Nevertheless, married women are less at risk of adverse outcomes than women who conceive outside of marriage. Most women age 15-49 are married. Among unmarried women, a small percentage are widowed/divorced/separated, but the larger percentage were never married. Jordan and Namibia have the highest rates of women age 15-49 who have never been married. This is because women in these countries marry at a later age (21.5 and 26.2 years, respectively).

Polygyny is practiced in much of sub-Saharan Africa and to a small extent in a few countries in North Africa/West Asia/Europe, Nepal in Southeast Asia, and Haiti in Latin America and the Caribbean. Polygyny is thought to be an indicator of lower status for women because of reduced access to resources. Most polygynous families have limited resources, and these must be allocated among a larger group of adults and children. On the other hand, polygyny can work to enhance a woman's health because women in polygynous unions are more likely to practice longer periods of postpartum abstinence and hence have long birth intervals.

Female-headed households pose both an opportunity and a threat to women's health. In developing countries, many decisions affecting women's health are made at the household level. If female heads of households are more autonomous and have control over resources, they are better able to care for their children and invest in their own health. However, if female heads of households are less educated, have limited access to resources, and have an excessive workload, they may not be able to promote their health or seek health care services. With growing numbers of female-headed households in sub-Saharan Africa and Latin America and the Caribbean, it is recommended that there be further study of this population to determine how women's health is affected. Countries of interest include Ghana, Namibia, and Haiti, where more than 40 percent of women age 15-49 live in female-headed households.

5.2.2 Behavioral Context

A woman's increased exposure to childbirth is related to her risk of maternal morbidity and mortality. The behavioral context of women's health is composed of the decisions and actions that influence overall fertility, such as a woman's age at first intercourse, first marriage and first birth, fertility-limiting behaviors, use of antenatal and delivery services, and awareness of HIV/AIDS preventive practices.

A key observation is that for 50 percent of women, first intercourse, first marriage, and first birth all occur during the adolescent period (under 20 years), thereby inhibiting women's opportunities for pursuing education and for securing skills for self-empowerment and improved work opportunities. The

median age at first marriage is higher in Central Asia and Latin America and the Caribbean than it is in sub-Saharan Africa and South/Southeast Asia. Childbirth follows marriage within one to three years, depending on the region. It is about the same length of time between childbirth and first sexual intercourse. Hence, first intercourse, first marriage, and first birth follow in close succession and at a young age, allowing for high fertility and a long childbearing period if fertility-limiting actions are not taken.

The overall regional average total fertility rate is highest in sub-Saharan Africa (5.5), followed by North Africa/West Asia/Europe (4.5), Latin America and the Caribbean (3.6), and South/Southeast Asia (3.5); Central Asia has the lowest rate (2.0). Women spend more than 10 years being pregnant, breastfeeding, and caring for young infants in most of the developing countries. The longest childbearing periods (more than 15 years) are in sub-Saharan Africa and in Yemen in North Africa/West Asia/Europe.

Breastfeeding promotes women's health by reducing postpartum blood loss, suppressing fertility, influencing the length of the birth interval, and reducing the iron demands of women as a result of postpartum amenorrhea. Breastfeeding is widely practiced, with over 90 percent of children being breastfed for some period of time in almost all countries (except Gabon and the Philippines). Exclusive breastfeeding for the internationally recommended six months is not common. In 29 of 43 countries, less than 40 percent of children under six months are being exclusively breastfed. It is more widely practiced in South/Southeast Asia and in a few countries in Latin America and the Caribbean, as well as in Egypt in North Africa/West Asia/Europe. While exclusive breastfeeding is 40 percent or higher in only one-fourth of sub-Saharan countries, the median duration of breastfeeding is more than 20 months in all sub-Saharan countries as well as the countries of South/Southeast Asia.

Fertility is also influenced by the duration of postpartum amenorrhea, abstinence, and insusceptibility. Sub-Saharan countries have the longest median durations of postpartum amenorrhea, abstinence, and insusceptibility. North Africa/West Asia/Europe has the shortest durations of postpartum amenorrhea and insusceptibility. However, countries in all of the regions, except for most of sub-Saharan Africa, have short median durations (less than 3 months) of postpartum abstinence.

To control natural fertility, the practice of child spacing and family planning is most effective. Although rates of contraceptive use are at an all-time high, countries in sub-Saharan Africa have the lowest rates of any region, with most of the countries falling below 30 percent—and traditional methods contribute substantially to levels of current use. The highest rates of contraceptive use are found in Latin America and the Caribbean. The rates of unmet need for family planning are highest in sub-Saharan Africa (over 25 percent) and lowest in Central Asia and parts of Latin America and the Caribbean. Yemen in North Africa/West Asia/Europe and Haiti in Latin America and the Caribbean have low rates of contraceptive use and high (almost 40 percent) rates of unmet need.

Maternal health is affected by access to and utilization of health services for antenatal care and delivery care. Underutilization of antenatal care is associated with suboptimal pregnancy outcomes. There are large differences in the use of a trained health professional for antenatal care. The highest levels are in Central Asia, where more than 90 percent of women saw a trained medical professional for at least one antenatal care visit. In the other regions, the country rates range from 30 percent to over 90 percent. In 38 of 46 countries, the levels are 50 percent or higher.

Urban-rural differences are largest in the countries of sub-Saharan Africa, North Africa/West Asia/Europe, and South/Southeast Asia. In a little less than half of the countries, 50 percent or more of women in rural areas reported that they had at least 4 antenatal visits; in urban areas in three-fourths of the countries, 50 percent or more of women reported that they had at least 4 antenatal care visits with a trained medical professional. Central Asia has the highest rates (more than 80 percent) in both urban and rural areas. The lowest rates are found in South/Southeast Asia, Yemen in North Africa/West Asia/Europe, and sub-Saharan Africa.

Maternal immunization for tetanus toxoid is an important part of antenatal care services, preventing maternal and neonatal infection at delivery. The rates for women receiving at least one tetanus toxoid injection for their last birth in the three years preceding the survey range from 18 percent in Yemen to 97 percent in the Dominican Republic. One-third of the 42 countries reporting on this indicator have 50 percent or fewer of women reporting that they received at least one tetanus toxoid injection during pregnancy for the last birth.

Having a skilled attendant at delivery is strongly associated with low levels of maternal morbidity and mortality. In Central Asia there is almost universal use of trained medical professionals for delivery. Yemen in North Africa/West Asia/Europe and Haiti in Latin America and the Caribbean have low rates for their regions but he lowest rates of use of a trained medical attendant at delivery are found in sub-Saharan Africa and South/Southeast Asia.

Messages to prevent HIV/AIDS are not effectively reaching women in most developing countries. Although the HIV/AIDS pandemic is taking a heavy toll on women, less than 40 percent are aware that abstaining from sex, being faithful to one sex partner, and using condoms are ways to prevent the spread of HIV/AIDS (the ABC approach to HIV/AIDS prevention).

5.2.3 Environmental Context

The environmental context describes the external living conditions of women, illustrating the potential impact of disparities in infrastructure between rural and urban areas and the extent that women lack basic household amenities. In much of the developing world, except for Latin America and the Caribbean., the majority of women live in rural areas. Over 60 percent of women in most countries in sub-Saharan Africa and South/Southeast Asia live in rural areas with limited infrastructure and access to essential resources. Over 50 percent of women in Egypt and Yemen in North Africa/West Asia/Europe live in rural areas, as do half of women in Central Asia.

Women in developing countries bear most of the responsibility for child care, cooking, and household maintenance with few basic amenities to assist them. In most countries in sub-Saharan Africa (24 of 25 countries) and South/Southeast Asia (3 of 6 countries) the majority of women live in houses without electricity. In Central Asia, most of North Africa/West Asia/Europe (except for Yemen), and Latin America and the Caribbean (except for Haiti), the majority of women live in households with electricity. Housing quality has implications for women's health. Poor housing makes residents vulnerable to communicable diseases and respiratory problems. The type of flooring is indicative of the quality of the housing. Earthen floors (dirt, dung, or sand) are most prevalent in houses in sub-Saharan Africa (60 percent or more) and in Bangladesh and Nepal in South/Southeast Asia.

Clean drinking water is essential for health. Piped water is considered the safest, compared with well water or water fetched from rivers or lakes. Moreover, women spend less time collecting and carrying water if it is piped. With ease of access to safe water, food is less likely to become contaminated, and more water is likely to be available for cleaning and personal hygiene. Most women in sub-Saharan Africa and South/Southeast Asia women live in households that do not have access to piped drinking water. A large percentage of women living in Turkey and Yemen also do not have access to safe water. In Central Asia and Latin America and the Caribbean, more than 20 percent of women live in households that do not have access to piped water, with the exception of Colombia.

Lack of sanitation facilities is a serious public health problem. In 10 of the 25 sub-Saharan countries, 50 percent or more of women are without access to a toilet facility. In 3 of the 5 countries in South/Southeast Asia, more than 64 percent of women live in households without access to toilet facilities. Women living in countries in Central Asia and North Africa/West Asia/Europe generally have access to toilet facilities, except in Yemen, where 30 percent of women live in households without any toilet facility. Lack of access to toilet facilities in Latin America and the Caribbean is low, except in Bolivia (29 percent) and Haiti (34 percent).

5.3 Conclusions

Behavior change policies and programs that focus on the individual are important for improving the health of women, but efforts at the social and environmental levels are also needed. Reviewing the context of women's health is important, along with renewed emphasis on women's health, including monitoring national-level indicators of the context in which women live. Poor nutritional status, including chronic energy deficiency and micronutrient deficiencies, undermine women's health. High fertility, low contraceptive use, and limited access and use of antenatal and delivery services continue to challenge reproductive and maternal health policies and program interventions. To improve the conditions under which women live, environmental health programs need to target and reach women with basic amenities including piped water and sanitation facilities. However, despite major inputs and financial investments in public health, intersectoral approaches to women's health are required. Poor housing conditions produce environments that encourage the transmission of infections and viruses. Illiterate women who have limited exposure to health information and education cannot be expected to adopt health-sustaining behaviors. Improving infrastructures in rural areas would meet the needs of the majority of women in developing countries.

Regions and countries vary on specific indicators but, overall, sub-Saharan Africa, South/Southeast Asia, and Yemen in North Africa/West Asia/Europe need priority attention. Central Asia demonstrates acceptable results on most indicators except women's nutrition and contraceptive use. All regions need to focus attention on women's nutrition, education, and environmental factors, along with continued emphasis on maternal and reproductive health.

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Appendix A

Table A.4.1 Maternal mortality ratio

Maternal mortality ratio (per 100,000 births) for the seven-year period preceding the survey, based on survivorship of sisters of survey respondents, Demographic and Health Surveys 1994-2001

Country	Maternal deaths per 100,000 live births
Sub-Saharan Africa	
Benin 1996	498
Burkina Faso 1998-99	440
Cameroon 1998	511
Central African Republic 1994-95	1,380
Chad 1996-97	827
Côte d'Ivoire 1994	597
Eritrea 1995	1,018
Ethiopia 2000	871
Gabon 2000	519
Guinea 1999	528
Kenya 1998	743
Madagascar 1997	488
Malawi 2000	1,123
Mali 1995-96	541
Mozambique 1997	289
Namibia 2000	330
Rwanda 2000	1,558
Tanzania 1996	612
Togo 1998	417
Uganda 2000-01	524
Zambia 1996	649
Zimbabwe 1999	647
North Africa/West Asia/Europe	
Jordan 1997	37
Yemen 1997	357
South/Southeast Asia	
Cambodia 2000	437
India 1998-99	540
Indonesia 1997	312
Nepal 1996	499
Philippines 1998	172
Latin America/Caribbean	
Brazil 1996	184
Guatemala 1995	155
Haiti 2000	523
Peru 2000	185

Note: The Rwanda data are for the period 0-4 years preceding the survey; the India data are for the period 0-2 years preceding the survey. Maternal mortality ratio = maternal mortality rate/general fertility rate

Table A.4.2 Nutritional status of mothers with children under three years

Among women age 15-49 years with children under three years, percentage whose height is less than 145 centimeters (cm) and percentage with a body mass index (BMI) <18.5, 18.5-24.9, and ≥25, Demographic and Health Surveys 1994-2001

	Height		BMI (kg/m^2)			
Country	Percentage <145 cm	Number of women	Percentage <18.5	Percentage 18.5-24.9	Percentage ≥25	Number of children
Sub-Saharan Africa						
Benin 1996	1.3	2,544	15.0	75.6	9.4	2,135
Burkina Faso 1998-99	0.3	3,215	13.0	81.9	5.1	2,725
Cameroon 1998	1.1	2,004	7.9	71.5	20.7	1,655
Central African Republic 1994-95	2.4	2,388	15.2	78.1	6.7	1,917
Chad 1996-97	0.3	3,783	20.4	75.0	4.6	3,018
Comoros 1996	3.8	891	10.3	70.6	19.1	729
Côte d'Ivoire 1994	0.8	3,510	7.9	78.4	13.7	2,941
Eritrea 1995	2.3	2,189	40.4	55.4	4.2	1,773
Ethiopia 2000	2.0	6,309	24.9	73.1	2.0	5,228
Gabon 2000	1.5	2,005	6.9	66.0	27.1	1,706
Ghana 1998	0.7	1,704	12.3	72.5	15.2	1,486
Guinea 1999	1.2	2,948	11.0	78.3	10.7	2,492
Kenya 1998	1.0	2,934	12.3	74.6	13.1	2,464
Madagascar 1997	8.3	3,201	20.6	75.7	3.7	2,600
Malawi 2000	2.5	6,682	6.6	83.3	10.1	5,477
Mali 1995-96	0.4	5,040	16.2	75.2	8.6	4,023
Mozambique 1997	4.8	3,743	10.9	79.6	9.5	3,088
Niger 1998	0.4	4,180	20.7	71.8	7.5	3,324
Rwanda 2000	1.2	4,025	5.6	81.6	12.7	3,248
Tanzania 1996	2.7	3,590	9.0	79.2	11.8	3,031
Togo 1998	1.0	3,548	10.9	77.8	11.3	3,029
Uganda 2000-01	1.9	3,615	9.3	80.2	10.5	2,827
Zambia 1996	1.2	3,751	9.2	79.3	11.5	3,066
Zimbabwe 1999	1.6	1,916	4.9	72.9	22.2	1,661
North Africa/West Asia/Europe						
Egypt 2000	1.2	5,942	0.7	31.1	68.2	5,068
Jordan 1997	1.2	2,932	2.8	38.5	58.7	2,317
Turkey 1998	2.1	1,795	3.0	45.4	51.7	1,536
Yemen 1997	8.7	5,933	25.8	60.4	13.7	4,479
Central Asia						
Kazakhstan 1999	0.2	354	8.9	70.5	20.6	327
Kyrgyz Republic 1997	0.5	1,014	7.2	74.3	18.6	876
Uzbekistan 1996	1.1	1,204	11.6	73.1	15.3	1,055
South/Southeast Asia						
Bangladesh 1999-2000	16.2	3,745	46.8	49.6	3.6	3,252
Cambodia 2000	4.4	2,012	22.0	73.3	4.7	1,672
India 1998-99	12.2	26,901	38.6	56.4	5.0	22,561
Nepal 1996	14.8	3,746	28.4	70.0	1.6	3,193
Latin America/Caribbean						
Bolivia 1998	12.6	3,359	0.9	55.5	43.6	2,871
Brazil 1996	3.8	2,309	6.7	60.9	32.4	2,016
Colombia 1995	5.6	2,548	4.2	57.6	38.2	2,237
Dominican Republic 1996	2.6	2,125	7.0	57.5	35.5	1,776
Guatemala 1995	34.6	4,424	4.3	64.1	31.6	3,496
Haiti 2000	2.1	3,364	9.4	67.3	23.3	2,835
Nicaragua 1998	6.3	3,872	4.1	59.7	36.3	3,390
Peru 2000	15.3	6,154	0.8	54.9	44.3	5,489

Table A.4.3 Micronutrients: Anemia status and iron intake among mothers

Among women age 15-49 with a birth in the three years preceding the survey, percentage with specific anemia levels, and percentage who took iron tablets or syrup during pregnancy, Demographic and Health Surveys 1994-2001

	Anemia status of mothers						Iron supplementation during last pregnancy				
Country	Mild	Moderate	Severe	Total	Not anemic	Number	No	Yes	Don't know	Missing	Number
Sub-Saharan Africa	u	u	u	u	u	u	u	u	u	u	u
Benin 1996	u	u	u	u	u	u	u	u	u	u	u
Burkina Faso 1998-99	u	u	u	u	u	u	u	u	u	u	u
Cameroon 1998	u	u	u	u	u	u	u	u	u	u	u
Central African Republic 1994-95	u	u	u	u	u	u	u	u	u	u	u
Chad 1996-97	u	u	u	u	u	u	u	u	u	u	u
Côte d'Ivoire 1994	u	u	u	u	u	u	u	u	u	u	u
Eritrea 1995	u	u	u	u	u	u	69.8	30.2	0.0	0.1	2,202
Ethiopia 2000	u	u	u	u	u	u	u	u	u	u	u
Gabon 2000	u	u	u	u	u	u	30.8	67.9	0.8	0.5	2,766
Ghana 1998	u	u	u	u	u	u	20.7	78.4	0.9	0.0	2,311
Guinea 1999	u	u	u	u	u	u	u	u	u	u	u
Kenya 1998	u	u	u	u	u	u	u	u	u	u	u
Madagascar 1997	30.1	11.1	0.9	42.1	57.9	3,299	u	u	u	u	u
Malawi 2000	u	u	u	u	u	u	32.5	67.3	0.0	0.2	8,057
Mali 1995-96	u	u	u	u	u	u	u	u	u	u	u
Mozambique 1997	u	u	u	u	u	u	u	u	u	u	u
Namibia 2000	u	u	u	u	u	u	u	u	u	u	u
Niger 1998	u	u	u	u	u	u	88.7	11.1	0.0	0.2	4,242
Rwanda 2000	u	u	u	u	u	u	78.3	20.6	1.0	0	5,141
Tanzania 1996	u	u	u	u	u	u	53.3	44.4	2.2	0.0	2,183
Togo 1998	u	u	u	u	u	u	u	u	u	u	u
Uganda 2000-01	25.8	10.0	0.9	36.7	63.3	6,548	48.2	51.4	0.3	0.1	4,489
Zambia 1996	u	u	u	u	u	u	u	u	u	u	u
Zimbabwe 1999	u	u	u	u	u	u	39.1	59.9	0.8	0.2	2,770
North Africa/West Asia/ Europe											
Egypt 2000	22.7	4.6	0.3	27.6	72.3	7,575	70.5	26.5	2.9	0.1	7,953
Jordan 1997	u	u	u	u	u	u	u	u	u	u	u
Turkey 1998	u	u	u	u	u	u	45.7	54.0	0.0	0.3	2,617
Yemen 1997	u	u	u	u	u	i	77.7	22.1	0.0	0.2	7.343
Central Asia											
Kazakhstan 1999	26.6	7.7	1.2	35.5	64.5	2,269	51.1	48.1	0.5	0.3	1,129
Kyrgyz Republic 1997	27.7	9.0	1.5	38.2	61.9	3,767	u	u	u	u	u
Uzbekistan 1996	45.3	14.2	0.9	60.4	39.6	4,333	u	u	u	u	u
South/Southeast Asia											
Bangladesh 1999-2000	u	u	u	u	u	u	63.1	36.4	0.2	0.4	5,263
Cambodia 2000	44.8	12.7	1.3	58.8	41.2	3,634	78.6	20.7	0.3	0.3	5,714
India 1998-99	34.9	14.6	1.7	51.2	48.8	80,693	41.9	57.9	0.0	0.2	28,446
Indonesia 1997	u	u	u	u	u	u	26.4	67.1	6.5	0.1	13,393
Nepal 1996	u	u	u	u	u	u	90.9	8.9	0.2	0.0	3,813
Philippines 1998	u	u	u	u	u	u	24.0	75.6	0.3	0.1	4,968
Latin America/Caribbean											
Bolivia 1998	20.7	5.6	0.9	27.2	72.9	3,531	u	u	u	u	u
Brazil 1996	u	u	u	u	u	u	u	u	u	u	u
Colombia 1995	u	u	u	u	u	u	27.5	72.0	0.4	0.1	3,547
Dominican Republic 1996	u	u	u	u	u	u	9.1	90.9	0.0	0.0	3,067
Guatemala 1995	u	u	u	u	u	u	u	u	u	u	u
Haiti 2000	36.9	15.7	2.8	55.4	44.6	3,138	40.9	57.1	2.0	0.0	4,254
Nicaragua 1998	u	u	u	u	u	u	u	u	u	u	u
Peru 2000	25.4	5.9	0.3	31.6	68.4	6,184	47.4	52.0	0.5	0.1	9,535

Note: The India anemia levels are based on ever-married women.
u = Unknown (question not asked)

Table A.4.4 Micronutrients: Night blindness, vitamin A intake among mothers, and iodized salt

Among women age 15-49 with a birth in the three years preceding the survey, percentage who had night blindness during pregnancy, percentage who received a vitamin A dose in the first two months after delivery, and percentage of all women age 15-49 who live in households with salt that received a positive reading for the presence of iodine, Demographic and Health Surveys 1994-2001

	Night blindness during last pregnancy					Vitamin A supplements given within two months after last pregnancy			Iodized salt	
Country	Night blindness	Day vision problems	Both night blind and day vision problems	Adjusted rate (night blind but no day vision problems)	Number	No	Yes	Number	Percentage of women 15-49 in households with iodized salt	Number of women living in households with salt tested
Sub-Saharan Africa										
Benin 1996	u	u	u	u	u	u	u	u	78.8	5,294
Burkina Faso 1998-99	u	u	u	u	u	u	u	u	2.7[a]	6,424
Cameroon 1998	u	u	u	u	u	u	u	u	94.5	5,065
Central African Republic 1994-95	u	u	u	u	u	u	u	u	28.2	5,211
Chad 1996-97	u	u	u	u	u	u	u	u	64.5	7,099
Côte d'Ivoire 1994	u	u	u	u	u	u	u	u	u	u
Eritrea 1995	u	u	u	u	u	u	u	u	0.2[a]	5,047
Ethiopia 2000	17.0	20.6	12.5	4.5	6,354	88.0	11.8	7,978	29.8	15,254
Gabon 2000	9.9	14.6	7.7	2.1	2,137	u	u	u	18.3	5,765
Ghana 1998	u	u	u	u	u	71.3	28.3	2,311	27.8	4,803
Guinea 1999	u	u	u	u	u	u	u	u	13.9	6,092
Kenya 1998	u	u	u	u	u	u	u	u		
Madagascar 1997	9.6	6.5	6.5	3.1	722				81.8	6,551
Malawi 2000	4.3	7.9	2.8	1.5	6,753	58.1	41.7	8,057	83.6	12,145
Mali 1995-96	u	u	u	u	u	u	u	u	1.7[a]	9,655
Mozambique 1997	u	u	u	u	u	u	u	u	1.8[a]	8,707
Namibia 2000	u	u	u	u	u	63.9	33.4	3,002	83.0	6,247
Niger 1998	u	u	u	u	u	u	u	u	76.8	6,977
Rwanda 2000	7.4	7.1	3.2	4.2	4,071	85.8	13.9	5,141	98.0	9,564
Tanzania 1996	u	u	u	u	u	89.0	10.9	2,183	u	u
Togo 1998	u	u	u	u	u	u	u	u	78.8[a]	8,207
Uganda 2000-01	8.7	22.6	7.6	1.1	3,848	88.5	11.3	4,489	98.6	6,638
Zambia 1996	u	u	u	u	u	u	u	u	96.1	7,170
Zimbabwe 1999	4.4	6.3	3.3	1.1	2,018	u	u	u	u	u
North Africa/West Asia/ Europe										
Egypt 2000	u	u	u	u	u	86.4	11.9	7,953	55.3	15,553
Jordan 1997	u	u	u	u	u	u	u	u	95.7[a]	5,539
Turkey 1998	u	u	u	u	u	u	u	u	u	u
Yemen 1997	u	u	u	u	u	u	u	u	40.3	10,285
Central Asia										
Kazakhstan 1999	u	u	u	u	u	u	u	u	31.0	4,654
Kyrgyz Republic 1997	u	u	u	u	u	u	u	u	26.1[a]	3,617
Uzbekistan 1996	u	u	u	u	u	u	u	u	16.6[a]	4,409
South/Southeast Asia										
Bangladesh 1999-2000	u	u	u	u	u	84.1	15.8	5,263	u	u
Cambodia 2000	8.8	25.4	6.9	1.9	4,105	88.9	10.7	5,714	15.7	15,216
India 1998-99	12.4	22.4	9.0	3.4	28,779	u	u	u	71.9	89,830
Indonesia 1997	u	u	u	u	u	u	u	u	u	u
Nepal 1996	18.7	na	na	na	3,813	u	u	u	93.3	8,417
Philippines 1998	u	u	u	u	u	u	u	u	28.7	13,916
Latin America/Caribbean										
Bolivia 1998	u	u	u	u	u	u	u	u	u	u
Brazil 1996	u	u	u	u	u	u	u	u	97.3[a]	12,444
Colombia 1995	u	u	u	u	u	u	u	u	u	u
Dominican Republic 1996	u	u	u	u	u	u	u	u	15.6	7,969
Guatemala 1995	u	u	u	u	u	u	u	u	91.3	12,114
Haiti 2000	10.0	15.1	9.0	1.0	3,392	75.5	24.5	4,254	23.4	9,633
Nicaragua 1998	u	u	u	u	u	u	u	u	91.8	12,940
Peru 2000	8.3	14.2	6.5	1.8	6,377	88.3	11.6	9,535	97.9	27,463

Note: In Nepal, night blindness was not adjusted for daylight problems because the question was not asked. In Madagascar, only currently pregnant women were asked about night blindness.
u = Unknown (question not asked)
[a] No actual iodine test, information from salt package only

Table A.4.5 Low birth weight

Percentage of women whose most recent live birth in the three years preceding the survey was a low-birth-weight baby, Demographic and Health Surveys 1994-2000

Country	Percentage of mothers with low-birth-weight babies	Number
Sub-Saharan Africa		
Benin 1996	13.3	2,597
Burkina Faso 1998-99	17.1	3,302
Cameroon 1998	8.8	2,148
Central African Republic 1994-95	12.2	2,446
Chad 1996-97	16.7	3,847
Comoros 1996	18.1	934
Côte d'Ivoire 1994	13.4	3,556
Eritrea 1995	19.5	2,202
Ethiopia 2000	12.0	6,354
Gabon 2000	12.1	2,137
Ghana 1998	8.8	1,744
Guinea 1999	10.1	3,089
Kenya 1998	9.0	3,007
Madagascar 1997	14.5	3,305
Malawi 2000	12.4	6,753
Mali 1995-96	15.8	5,175
Mozambique 1997	11.7	3,822
Namibia 2000	13.6	2,235
Niger 1998	15.1	4,242
Rwanda 2000	7.2	4,071
Tanzania 1996	10.8	3,755
Togo 1998	12.3	3,592
Uganda 2000-01	9.4	3,848
Zambia 1996	10.3	3,790
Zimbabwe 1999	9.3	2,018
North Africa/West Asia/Europe		
Egypt 2000	9.5	6,017
Jordan 1997	9.2	2,956
Turkey 1998	13.7	1,869
Yemen 1997	34.1	6,130
Central Asia		
Kazakhstan 1999	5.6	730
Kyrgyz Republic 1997	6.4	1,025
Uzbekistan 1996	3.4	1,213
South/Southeast Asia		
Bangladesh 1999-2000	u	3,824
Cambodia 2000	8.9	4,105
India 1998-99	25.1	28,779
Indonesia 1997	7.5	9,034
Nepal 1996	u	3,813
Philippines 1998	16.8	3,747
Latin America/Caribbean		
Bolivia 1998	7.7	3,500
Brazil 1996	8.7	2,515
Colombia 1995	7.4	2,689
Dominican Republic 1996	12.7	2,241
Guatemala 1995	12.6	4,613
Haiti 2000	23.8	3,392
Nicaragua 1998	13.0	3,992
Peru 2000	8.8	6,377

Note: Low-birth-weight babies are those whose birth weight was less than 2.5 kg or who were estimated to be low birth weight based on projected proportions from mother's perceptions of birth size.
u = Unknown (question not asked)

Table A.4.6 Education

Percentage of de facto household population of males and females age 6-10 who are currently attending school, and among those attending school, ratio of females to males, Demographic and Health Surveys 1994-2001

Country	Percentage of the household population attending school			Ratio of females to males	Number of males	Number of females	Total population age 6-10
	Male	Female	Total				
Sub-Saharan Africa							
Benin 1996	49.7	33.8	41.8	0.68	2,336	2,278	4,615
Burkina Faso 1998-99	28.9	20.7	25.0	0.72	2,860	2,676	5,536
Cameroon 1998	70.6	69.7	70.1	0.99	2,074	2,019	4,093
Central African Republic 1994-95	61.7	47.6	54.8	0.77	2,320	2,226	4,546
Chad 1996-97	34.2	22.9	28.4	0.67	3,196	3,330	6,525
Comoros 1996	44.9	41.7	43.2	0.93	1,110	1,156	2,266
Côte d'Ivoire 1994	52.8	42.3	47.5	0.80	3,005	3,096	6,101
Eritrea 1995	38.4	34.8	36.6	0.91	1,918	2,006	3,924
Ethiopia 2000	21.8	19.8	20.8	0.91	5,383	5,085	10,468
Gabon 2000	93.4	92.9	93.2	0.99	2,036	2,145	4,180
Ghana 1998	74.0	75.3	74.6	1.02	1,704	1,585	3,289
Guinea 1999	24.3	18.9	21.6	0.78	3,082	3,032	6,114
Kenya 1998	82.0	82.5	82.3	1.01	2,989	2,834	5,823
Madagascar 1997	57.6	59.7	58.6	1.04	2,659	2,576	5,235
Malawi 2000	70.5	73.9	72.2	1.05	4,812	4,929	9,741
Mali 1995-96	28.0	22.0	25.0	0.79	4,121	4,185	8,307
Mozambique 1997	53.3	47.0	50.1	0.88	3,163	3,237	6,401
Namibia 2000	81.0	81.5	81.3	1.01	2,375	2,548	4,924
Niger 1998	24.0	16.8	20.5	0.70	3,018	2,845	5,863
Rwanda 2000	36.3	37.1	36.7	1.02	3,437	3,603	7,040
Tanzania 1996	25.1	29.5	27.3	1.18	3,093	3,027	6,121
Togo 1998	72.4	63.6	68.2	0.88	3,665	3,415	7,080
Uganda 2000-01	78.0	80.0	79.1	1.03	3,190	3,299	6,489
Zambia 1996	48.3	49.3	48.8	1.02	2,971	2,975	5,946
Zimbabwe 1999	82.1	83.6	82.8	1.02	1,918	1,880	3,799
North Africa/West Asia/Europe							
Egypt 2000	87.6	83.9	85.8	0.96	5,325	5,114	10,439
Jordan 1997	87.6	88.1	87.8	1.01	3,031	2,777	5,809
Turkey 1998	74.4	70.4	72.4	0.95	1,855	1,764	3,619
Yemen 1997	67.1	41.2	54.5	0.61	6,730	6,414	13,144
Central Asia							
Kazakhstan 1999	73.1	72.7	72.9	0.99	1,167	1,101	2,268
Kyrgyz Republic 1997	78.3	75.7	77.1	0.97	1,147	1,068	2,214
Uzbekistan 1996	67.8	70.4	69.1	1.04	1,278	1,232	2,510
South/Southeast Asia							
Bangladesh 1999-2000	78.4	80.3	79.3	1.02	3,401	3,389	6,790
Cambodia 2000	63.1	62.9	63.0	1.00	5,497	5,449	10,946
India 1998-99	85.2	78.3	81.9	0.92	33,121	30,486	63,607
Indonesia 1997	85.7	87.2	86.5	1.02	8,634	8,262	16,896
Nepal 1996	73.7	56.7	65.3	0.77	3,144	3,081	6,224
Philippines 1998	81.0	84.7	82.8	1.05	4,034	3,883	7,917
Latin America/Caribbean							
Bolivia 1998	94.7	94.5	94.6	1.00	3,774	3,654	7,428
Brazil 1996	93.4	93.7	93.5	1.00	3,020	3,006	6,026
Colombia 1995	89.5	91.4	90.5	1.02	2,527	2,525	5,052
Dominican Republic 1996	91.1	93.1	92.0	1.02	2,426	2,236	4,662
Guatemala 1995	60.9	55.2	58.1	0.91	4,431	4,328	8,758
Haiti 2000	60.4	58.9	59.6	0.98	3,122	3,133	6,256
Nicaragua 1998	69.2	73.7	71.5	1.07	4,508	4,511	9,019
Peru 2000	94.8	94.2	94.5	0.99	7,997	7,685	15,683

Table A.4.7 Literacy

Percent distribution of women age 15-49 who reported that they can read easily, read with difficulty, or cannot read, Demographic and Health Surveys 1994-2001

Country	Reads easily	Reads with difficulty	Cannot read	Total	Number
Sub-Saharan Africa					
Benin 1996	13.9	7.9	78.2	100.0	5,488
Burkina Faso 1998-99	7.6	3.3	89.1	100.0	6,439
Cameroon 1998	45.2	18.3	36.6	100.0	5,481
Central African Republic 1994-95	17.6	12.7	69.7	100.0	5,883
Chad 1996-97	6.8	7.8	85.4	100.0	7,449
Comoros 1996	29.0	18.8	52.2	100.0	3,047
Côte d'Ivoire 1994	24.3	10.4	65.4	100.0	8,099
Eritrea 1995	28.6	6.3	65.1	100.0	5,051
Ethiopia 2000	18.6	5.9	75.5	100.0	15,310
Gabon 2000	78.3	8.1	13.6	100.0	6,109
Ghana 1998	53.3	3.1	43.6	100.0	4,842
Guinea 1999	10.3	3.4	86.3	100.0	6,710
Kenya 1998	62.5	20.5	17.1	100.0	7,855
Madagascar 1997	56.3	14.3	29.5	100.0	7,044
Malawi 2000	48.7	7.9	43.4	100.0	13,202
Mali 1995-96	8.7	4.0	87.3	100.0	9,684
Mozambique 1997	17.6	15.2	67.2	100.0	8,763
Namibia 2000	80.6	8.4	11.0	100.0	6,579
Niger 1998	7.7	3.6	88.8	100.0	7,571
Rwanda 2000	57.9	8.3	33.8	100.0	10,407
Tanzania 1996	54.3	11.2	34.4	100.0	8,102
Togo 1998	22.0	18.3	59.7	100.0	8,541
Uganda 2000-01	48.7	10.6	40.7	100.0	7,065
Zambia 1996	46.8	19.7	33.4	100.0	8,010
Zimbabwe 1999	75.0	14.8	10.3	100.0	5,891
North Africa/West Asia/Europe					
Egypt 2000	42.2	8.0	49.8	100.0	15,569
Jordan 1997	82.1	6.9	11.0	100.0	5,547
Turkey 1998	75.8	8.8	15.4	100.0	8,569
Yemen 1997	14.7	4.7	80.6	100.0	10,409
Central Asia					
Kyrgyz Rep 1997	96.1	3.6	0.4	100.0	3,848
Uzbekistan 1996	94.6	5.2	0.2	100.0	4,415
South/Southeast Asia					
Bangladesh 1999-2000	33.6	12.2	54.2	100.0	10,530
Cambodia 2000	42.9	24.5	32.6	100.0	15,258
India 1998-99	41.9	0.0	58.1	100.0	90,279
Indonesia 1997	72.9	9.1	18.0	100.0	28,809
Nepal 1996	16.5	4.4	79.1	100.0	8,429
Philippines 1998	85.8	11.6	2.6	100.0	13,936
Latin America/Caribbean					
Bolivia 1998	71.5	17.7	10.8	100.0	11,132
Brazil 1996	80.6	11.6	7.8	100.0	12,557
Colombia 1995	86.9	8.4	4.7	100.0	11,121
Dominican Republic 1996	80.7	9.9	9.5	100.0	8,389
Guatemala 1995	49.2	19.4	31.4	100.0	12,344
Haiti 2000	46.1	12.6	41.4	100.0	10,145
Nicaragua 1998	73.9	12.4	13.7	100.0	13,607
Peru 2000	86.7	4.6	8.6	100.0	27,749

Note: In Zimbabwe and Cambodia, if the respondent had higher than primary education, the question on literacy was not asked; literacy was assumed. In India, literacy was based on the respondent's self-assessment; reading ability was not observed.

Table A.4.8 Exposure to mass media

Percentage of women age 15-49 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 day, Demographic and Health Surveys 1994-2001

Country	Reads newspaper weekly	Watches television weekly	Listens to radio weekly	Listens to radio daily	Number
Sub-Saharan Africa					
Benin 1996	8.4	u	u	u	5491
Burkina Faso 1998-99	3.3	12.6	u	17.5	6,445
Cameroon 1998	13.4	32.9	u	24.2	5,501
Central African Republic 1994-95[a]	14.6	13.9	65.4	u	5,884
Chad 1996-97	4.7	4.8	u	22.9	7,454
Comoros 1996	18.0	25.2	u	54.4	3,050
Côte d'Ivoire 1994[a]	18.0	48.2	39.6	u	8,099
Eritrea 1995[a]	20.2	17.5	52.6	u	5,054
Ethiopia 2000	1.7	4.4	11.2	8.6	15,367
Gabon 2000	36.2	64.0	71.9	50.1	6,183
Ghana 1998	19.1	49.0	u	58.5	4,843
Guinea 1999	5.7	22.6	u	25.8	6,753
Kenya 1998	36.9	25.7	u	58.2	7,881
Madagascar 1997	26.5	13.8	u	39.6	7,060
Malawi 2000	9.8	3.8	52.3	43.3	13,220
Mali 1995-96[a]	6.5	29.8	59.8	u	9,704
Mozambique 1997	10.9	10.4	u	27.1	8,779
Namibia 2000	37.5	35.9	72.7	58.1	6,755
Niger 1998	5.3	25.4	u	53.5	7,577
Rwanda 2000	5.4	6.3	39.0	25.0	10,421
Tanzania 1996	13.1	8.8	43.5	32.6	8,120
Togo 1998	13.8	41.1	u	11.1	8,569
Uganda 2000-01	14.7	9.7	52.6	36.8	7,246
Zambia 1996	24.6	28.8	56.9	36.3	8,021
Zimbabwe 1999	27.2	31.8	53	43.3	5,907
North Africa/West Asia/Europe					
Egypt 2000	25.3	92.6	71.7	49.9	15,573
Jordan 1997	42.5	88.6	58.0	44.2	5,548
Turkey 1998	32.4	u	u	u	8,576
Yemen 1997[a]	10.2	33.6	31.2	u	10,414
Central Asia					
Kazakhstan 1999	61.9	90.1	35.4	28.3	4,800
Kyrgyz Republic 1997	68.7	89.7	u	51.9	3,848
Uzbekistan 1996	57.2	94.4	u	56.1	4,415
South/Southeast Asia					
Bangladesh 1999-2000	8.8	35.2	28.8	16.7	10,544
Cambodia 2000	12.2	56.3	46.1	30.7	15,351
India 1998-99[a]	20.8	45.7	36.5	u	90,303
Indonesia 1997	25.1	77.9	u	49.5	28,810
Nepal 1996	5.3	12.3	u	36.4	8,429
Philippines 1998	63.0	79.8	u	u	13,983
Latin America/Caribbean					
Bolivia 1998	55.1	72.8	u	75.5	11,187
Brazil 1996	56.6	88.7	u	70.9	12,612
Colombia 1995	68.1	82.6	u	81.2	11,140
Dominican Republic 1996	37.7	84.1	83.3	67.0	8,422
Guatemala 1995	44.7	56.4	u	72.3	12,403
Haiti 2000	26.2	31.3	61.9	43.8	10,159
Nicaragua 1998	52.1	68.4	u	76.2	13,634
Peru 2000	26.0	63.2	65.3	62.2	27,843

u = Unknown (question not asked)
[a] Listens to radio weekly

Table A.4.9 Employment status

Percentage of women age 15-49 who were employed in the 12 months preceding the survey, and among those, the percentage who worked in agriculture, Demographic and Health Surveys 1994-2001

Country	Percentage who worked in past 12 months	Number of women	Of those who worked, percentage who worked: In agriculture	Number
Sub-Saharan Africa				
Benin 1996	85.7	5,486	28.4	4,703
Burkina Faso 1998-99	66.4	6,440	41.9	4,273
Cameroon 1998	68.7	5,494	60.7	3,774
Central African Republic 1994-95	77.1	5,881	73.3	4,532
Chad 1996-97	43.9	7,451	32.7	3,271
Comoros 1996	40.1	3,042	35.3	1,221
Côte d'Ivoire 1994	71.0	8,099	45.3	5,753
Eritrea 1995	25.1	5,050	55.4	1,265
Ethiopia 2000	56.5	15,362	58.9	8,682
Gabon 2000	38.7	6,173	21.7	2,389
Ghana 1998	73.7	4,839	32.5	3,564
Guinea 1999	78.9	6,753	60.5	5,329
Kenya 1998	51.9	7,874	47.9	4,086
Madagascar 1997	77.8	7,056	70.7	5,488
Malawi 2000	56.4	13,217	66.5	7,455
Mali 1995-96	53.4	9,698	37.3	5,180
Mozambique 1997	62.4	8,749	84.3	5,462
Namibia 2000	32.7	6,748	11.1	2,207
Niger 1998	53.0	7,575	40.7	4,011
Rwanda 2000	79.0	10,409	88.1	8,221
Tanzania 1996	54.1	8,117	76.2	4,387
Togo 1998	77.9	8,561	33.4	6,669
Uganda 2000-01	73.5	7,233	77.3	5,316
Zambia 1996	45.6	8,016	36.1	3,655
Zimbabwe 1999	49.4	5,907	38.6	2,916
North Africa/West Asia/Europe				
Egypt 2000	16.8	15,573	17.3	2,611
Jordan 1997	12.5	5,548	5.8	695
Turkey 1998	35.3	8,562	49.5	3,019
Yemen 1997	28.5	10,413	82.5	2,972
Central Asia				
Kazakhstan 1999	41.3	4,792	3.7	1,979
Kyrgyz Republic 1997	43.4	3,848	26.4	1,668
Uzbekistan 1996	44.3	4,415	27.8	1,955
South/Southeast Asia				
Bangladesh 1999-2000	22.5	10,541	32.5	2,377
Cambodia 2000	73.5	15,351	66.6	11,276
India 1998-99	37.4	90,281	65.7	33,742
Indonesia 1997	23.8	28,810	90.6	6,853
Nepal 1996	77.4	8,418	90.0	6,513
Philippines 1998	46.2	13,966	11.0	6,448
Latin America/Caribbean				
Bolivia 1998	53.1	11,171	19.5	5,936
Brazil 1996	51.1	12,592	9.2	6,437
Colombia 1995	49.8	11,132	8.5	5,548
Dominican Republic 1996	41.8	8,416	3.0	3,521
Guatemala 1995	31.9	12,342	9.9	3,937
Haiti 2000	44.8	10,159	10.4	4,552
Nicaragua 1998	38.6	13,612	6.9	5,259
Peru 2000	56.5	27,814	25.7	15,726

Table A.4.10 Current marital status

Distribution of women age 15-49 by current marital status, Demographic and Health Surveys 1994-2001

Country	Married/ living together	Widowed/ divorced separated	Never married	Number
Sub-Saharan Africa				
Benin 1996	76.5	4.5	19.0	5,491
Burkina Faso 1998-99	80.4	2.7	16.9	6,445
Cameroon 1998	66.8	9.7	23.4	5,501
Central African Republic 1994-95	69.4	11.1	19.5	5,884
Chad 1996-97	78.2	8.1	13.7	7,454
Comoros 1996	53.6	7.5	39.0	3,050
Côte d'Ivoire 1994	65.1	8.6	26.4	8,099
Eritrea 1995	66.7	13.3	20.0	5,054
Ethiopia 2000	63.7	12.3	24.0	15,367
Gabon 2000	54.1	13.2	32.6	6,183
Ghana 1998	64.7	11.7	23.7	4,843
Guinea 1999	82.4	3.6	13.9	6,753
Kenya 1998	61.3	8.6	30.1	7,881
Madagascar 1997	62.8	13.8	23.4	7,060
Malawi 2000	71.5	11.5	17.0	13,220
Mali 1995-96	84.7	2.4	12.8	9,704
Mozambique 1997	74.4	10.5	15.1	8,779
Namibia 2000	38.6	7.1	54.3	6,755
Niger 1998	84.2	4.5	11.2	7,577
Rwanda 2000	48.5	17.5	34.1	10,421
Tanzania 1996	66.6	10.1	23.2	8,120
Togo 1998	67.9	7.1	24.9	8,569
Uganda 2000-01	67.4	12.6	20.1	7,246
Zambia 1996	61.1	13.5	25.3	8,021
Zimbabwe 1999	61.1	11.2	27.7	5,907
North Africa/West Asia/Europe				
Egypt 2000	62.8	5.2	31.9	22,884
Jordan 1997	52.5	2.1	45.4	10,165
Turkey 1998	69.0	3.2	27.7	8,576
Yemen 1997	67.4	4.3	28.3	14,521
Central Asia				
Kazakhstan 1999	62.9	11.8	25.3	4,800
Kyrgyz Republic 1997	69.5	9.0	21.5	3,848
Uzbekistan 1996	70.3	4.8	24.9	4,415
South/Southeast Asia				
Bangladesh 1999-2000	64.5	5.5	30.0	15,063
Cambodia 2000	59.1	9.1	31.8	15,351
India 1998-99	75.1	5.0	19.9	12,709
Indonesia 1997	69.7	5.0	25.3	38,590
Nepal 1996	79.0	4.4	16.6	10,101
Philippines 1998	59.6	4.0	36.4	13,983
Latin America/Caribbean				
Bolivia 1998	59.4	7.1	33.4	11,187
Brazil 1996	60.1	9.3	30.6	12,612
Colombia 1995	54.7	13.0	32.2	11,140
Dominican Republic 1996	59.2	15.3	25.6	8,422
Guatemala 1995	64.4	7.6	28.0	12,403
Haiti 2000	58.6	10.0	31.4	10,159
Nicaragua 1998	59.0	17.4	23.6	13,634
Peru 2000	56.1	8.0	35.8	27,843

Table A.4.11 Polygyny

Percentage of currently married women age 15-49 who are in a polygynous union, Demographic and Health Surveys 1994-2001

Country	Percent	Number
Sub-Saharan Africa		
Benin 1996	49.5	4,198
Burkina Faso 1998-99	54.6	5,181
Cameroon 1998	32.7	3,676
Central African Republic 1994-95	28.4	4,083
Chad 1996-97	39.1	5,832
Comoros 1996	25.0	1,634
Côte d'Ivoire 1994	36.4	5,271
Eritrea 1995	6.9	3,371
Ethiopia 2000	13.5	9,789
Gabon 2000	21.1	3,348
Ghana 1998	22.6	3,131
Guinea 1999	53.3	5,561
Kenya 1998	16.0	4,834
Madagascar 1997	3.3	4,435
Malawi 2000	17.0	9,452
Mali 1995-96	44.2	8,222
Mozambique 1997	27.3	6,530
Namibia 2000	12.4	2,610
Niger 1998	37.6	6,382
Rwanda 2000	12.1	5,052
Tanzania 1996	28.1	5,411
Togo 1998	42.8	5,819
Uganda 2000-01	28.9	4,881
Zambia 1996	16.6	4,902
Zimbabwe 1999	15.3	3,609
North Africa/West Asia/Europe		
Jordan 1997	6.5	5,337
Yemen 1997	6.9	9,786
South/Southeast Asia		
Nepal 1996	5.7	7,982
Latin America/Caribbean		
Haiti 2000	19.6	5,958

Table A.4.12 Female-headed households

Percentage of women age 15-49 living in a female-headed household, Demographic and Health Surveys 1994-2001

Country	Percentage of women living in a female-headed household	Number
Sub-Saharan Africa		
Benin 1996	14.9	5,733
Burkina Faso 1998-99	5.9	6,987
Cameroon 1998	21.6	5,651
Central African Republic 1994-95	18.8	6,028
Chad 1996-97	17.1	7,827
Comoros 1996	31.8	3,198
Côte d'Ivoire 1994	15.9	8,070
Eritrea 1995	28.2	5,060
Ethiopia 2000	21.7	15,472
Gabon 2000	31.2	7,017
Ghana 1998	40.7	5,081
Guinea 1999	11.3	7,132
Kenya 1998	33.9	7,965
Madagascar 1997	20.4	7,695
Malawi 2000	25.5	13,376
Mali 1995-96	5.8	10,303
Mozambique 1997	23.6	9,880
Namibia 2000	47.1	7,569
Niger 1998	9.6	7,692
Rwanda 2000	37.3	10,307
Tanzania 1996	21.1	8,549
Togo 1998	23.0	8,543
Uganda 2000-01	27.1	7,810
Zambia 1996	22.9	8,713
Zimbabwe 1999	39.0	6,123
North Africa/West Asia/Europe		
Egypt 2000	9.5	22,459
Jordan 1997	8.4	10,435
Turkey 1998	8.2	9,272
Yemen 1997	8.0	15,446
Central Asia		
Kazakhstan 1999	28.0	5,399
Kyrgyz Republic 1997	23.5	4,081
Uzbekistan 1996	19.6	4,728
South/Southeast Asia		
Bangladesh 1999-2000	7.7	12,876
Cambodia 2000	24.6	16,079
India 1998-99	9.1	122,721
Indonesia 1997	9.7	39,121
Nepal 1996	10.9	10,508
Philippines 1998	13.9	15,478
Latin America/Caribbean		
Bolivia 1998	18.5	12,401
Brazil 1996	19.4	14,368
Colombia 1995	24.3	12,047
Dominican Republic 1996	27.9	9,419
Guatemala 1995	19.7	13,632
Haiti 2000	46.5	10,342
Nicaragua 1998	33.0	15,274
Peru 2000	18.3	31,453

Note: Based on the de jure household population of women age 15-49

Table A.4.13 Median age at first sexual intercourse, first marriage, and first birth

Median age at first sexual intercourse, first marriage, and first birth among women age 25-49 years, Demographic and Health Surveys 1994-2001

Country	Median age at first sexual intercourse	Median age at first marriage	Median age at first birth	Number
Sub-Saharan Africa				
Benin 1996	17.3	18.4	19.6	3,396
Burkina Faso 1998-99	17.5	17.6	19.3	3,843
Cameroon 1998	15.8	17.4	19.0	3,092
Central African Republic 1994-95	15.9	17.3	19.4	3,471
Chad 1996-97	15.5	15.8	18.3	4,370
Comoros 1996	18.3	18.5	21.0	1,630
Côte d'Ivoire 1994	15.8	18.1	18.8	4,566
Eritrea 1995	16.8	16.7	21.4	3,102
Ethiopia 2000	16.0	16.0	19.0	8,797
Gabon 2000	16.1	19.7	18.5	3,336
Ghana 1998	17.7	19.1	20.3	3,033
Guinea 1999	16.0	16.4	18.8	4,346
Kenya 1998	16.5	19.2	19.4	4,482
Madagascar 1997	16.9	18.5	19.5	4,182
Malawi 2000	16.8	17.8	19.1	7,396
Mali 1995-96	15.8	16.0	18.8	6,227
Mozambique 1997	15.9	17.1	19.2	5,280
Namibia 2000	19.2	a	21.1	3,917
Niger 1998	16.7	15.1	17.8	4,499
Rwanda 2000	20.1	20.7	22.0	5,897
Tanzania 1996	16.7	18.2	19.1	4,712
Togo 1998	17.3	18.8	20.1	5,316
Uganda 2000-01	16.6	17.8	18.8	4,127
Zambia 1996	16.4	17.7	18.6	4,187
Zimbabwe 1999	18.7	19.3	19.9	3,166
North Africa/West Asia/Europe				
Egypt 2000	u	19.5	21.6	13,597
Jordan 1997	u	21.5	23.2	5,592
Turkey 1998	u	19.5	21.3	5,299
Yemen 1997	u	16.0	19.5	7,646
Central Asia				
Kazakhstan 1999	20.8	21.2	22.4	3,343
Kyrgyz Republic 1997	20.4	20.4	21.7	2,456
Uzbekistan 1996	20.1	20.1	21.6	2,628
South/Southeast Asia				
Bangladesh 1999-2000	u	14.7	17.8	7,000
Cambodia 2000	19.9	20.0	21.9	9,751
India 1998-99	u	17.1	19.4	67,433
Indonesia 1997	18.6	18.6	20.8	24,940
Nepal 1996	16.6	16.2	19.8	5,963
Philippines 1998	22.0	22.1	23.3	8,760
Latin America/Caribbean				
Bolivia 1998	18.9	20.9	21.5	6,733
Brazil 1996	19.5	21.1	22.4	8,256
Colombia 1995	19.5	21.4	22.1	7,036
Dominican Republic 1996	18.7	19.3	21.1	5,036
Guatemala 1995	18.2	19.0	20.1	7,186
Haiti 2000	18.2	20.5	21.9	5,899
Nicaragua 1998	18.2	18.3	19.7	7,904
Peru 2000	19.0	21.4	21.9	17,459

a = Omitted because less than 50% of respondents married before reaching the lower boundary of the age group
u = Unknown (question not asked)

Table A.4.14 Fertility

Total wanted fertility rate and total fertility rate for the three years preceding the survey, Demographic and Health Surveys 1994-2001

Country	Wanted total fertility rate	Total fertility rate
Sub-Saharan Africa		
Benin 1996	5.0	6.0
Burkina Faso 1998-99	5.7	6.4
Cameroon 1998	4.3	4.8
Central African Republic 1994-95	4.7	5.1
Chad 1996-97	6.1	6.4
Comoros 1996	3.7	4.6
Côte d'Ivoire 1994	4.4	5.3
Eritrea 1995	5.7	6.1
Ethiopia 2000	4.7	5.5
Gabon 2000	3.5	4.2
Ghana 1998	3.6	4.4
Guinea 1999	5.0	5.5
Kenya 1998	3.5	4.7
Madagascar 1997	5.2	6.0
Malawi 2000	5.2	6.3
Mali 1995-96	6.0	6.7
Mozambique 1997	4.7	5.2
Namibia 2000	3.4	4.2
Niger 1998	7.0	7.2
Rwanda 2000	4.7	5.8
Tanzania 1996	5.1	5.8
Togo 1998	4.2	5.2
Uganda 2000-01	5.3	6.9
Zambia 1996	5.2	6.1
Zimbabwe 1999	3.4	4.0
Noth Africa/West Asia/Europe		
Egypt 2000	2.9	3.5
Jordan 1997	2.9	4.4
Turkey 1998	1.9	2.6
Yemen 1997	4.6	6.5
Central Asia		
Kazakhstan 1999	1.9	2.0
Kyrgyz Republic 1997	3.1	3.4
Uzbekistan 1996	3.1	3.3
South/Southeast Asia		
Bangladesh 1999-2000	2.2	3.3
Cambodia 2000	3.0	3.8
India 1998-99	2.1	2.8
Indonesia 1997	2.4	2.8
Nepal 1996	2.9	4.6
Philippines 1998	2.7	3.7
Latin America/Caribbean		
Bolivia 1998	2.5	4.2
Brazil 1996	1.8	2.5
Colombia 1995	2.2	3.0
Dominican Republic 1996	2.5	3.2
Guatemala 1995	4.0	5.1
Haiti 2000	2.8	4.7
Nicaragua 1998	2.5	3.6
Peru 2000	1.8	2.8

Table A.4.15 Duration of childbearing period

Average number of years between first and last birth among ever-married women age 40-49 with two or more births, Demographic and Health Surveys 1994-2001

Country	Average number of years between first and last births	Number
Sub-Saharan Africa		
Benin 1996	17.5	934
Burkina Faso 1998-99	17.9	1,075
Cameroon 1998	16.1	730
Central African Republic 1994-95	15.4	743
Chad 1996-97	16.4	1,086
Comoros 1996	15.4	385
Côte d'Ivoire 1994	17.0	1,014
Eritrea 1995	15.2	1,037
Ethiopia 2000	17.9	2,521
Gabon 2000	15.8	725
Ghana 1998	15.7	835
Guinea 1999	17.3	1,124
Kenya 1998	15.6	1,064
Madagascar 1997	16.6	1,003
Malawi 2000	17.0	1,903
Mali 1995-96	17.6	1,566
Mozambique 1997	15.7	1,267
Namibia 2000	14.5	830
Niger 1998	18.3	1,128
Rwanda 2000	16.0	1,754
Tanzania 1996	17.8	1,190
Togo 1998	16.5	1,293
Uganda 2000-01	17.5	914
Zambia 1996	17.8	1,015
Zimbabwe 1999	15.6	775
North Africa/West Asia/Europe		
Egypt 2000	12.3	4,187
Jordan 1997	15.1	1,233
Turkey 1998	10.2	1,476
Yemen 1997	17.1	1,861
Central Asia		
Kazakhstan 1999	8.4	992
Kyrgyz Republic 1997	10.9	659
Uzbekistan 1996	11.2	673
South/Southeast Asia		
Bangladesh 1999-2000	14.4	1,884
Cambodia 2000	14.1	2,873
India 1998-99	10.1	17,579
Indonesia 1997	12.1	6,654
Nepal 1996	14.2	1,656
Philippines 1998	11.7	2,226
Latin America/Caribbean		
Bolivia 1998	13.2	1,850
Brazil 1996	9.6	2,212
Colombia 1995	10.6	1,821
Dominican Republic 1996	10.2	1,247
Guatemala 1995	14.0	2,050
Haiti 2000	14.0	1,620
Nicaragua 1998	13.5	2,029
Peru 2000	12.2	4,897

Table A.4.16 Initial breastfeeding and median duration of breastfeeding

Percentage of children born in the three years preceding the survey who were ever breastfed, and among those, median duration of any breastfeeding, Demographic and Health Surveys 1994-2001

	Births in the three years before survey		
Country	Proportion of children ever breastfed	Median duration of breastfeeding (months)	Number
Sub-Saharan Africa			
Benin 1996	97.2	22.8	2,939
Burkina Faso 1998-99	98.3	25.8	3,622
Cameroon 1998	97.3	18.1	2,469
Central African Republic 1994-95	97.9	20.6	2,836
Chad 1996-97	98.3	21.4	4,450
Comoros 1996	97.2	20.1	1,145
Côte d'Ivoire 1994	97.7	20.3	3,989
Eritrea 1995	98.7	22.0	2,580
Ethiopia 2000	96.4	25.5	7,167
Gabon 2000	86.3	12.1	2,482
Ghana 1998	97.4	21.5	1,927
Guinea 1999	95.4	22.4	3,427
Kenya 1998	97.6	20.9	3,464
Madagascar 1997	97.2	20.7	3,893
Malawi 2000	98.1	23.3	7,758
Mali 1995-96	97.5	21.6	6,019
Mozambique 1997	98.1	22.0	4,207
Namibia 2000	95.4	18.6	2,459
Niger 1998	97.9	20.6	5,007
Rwanda 2000	97.3	22.1	4,822
Tanzania 1996	97.4	21.5	4,286
Togo 1998	97.4	24.4	3,978
Uganda 2000-01	98.3	19.9	4,681
Zambia 1996	98.3	20.0	4,449
Zimbabwe 1999	97.8	19.6	2,191
North Africa/West Asia/Europe			
Egypt 2000	95.5	18.4	7,026
Jordan 1997	95.0	11.9	3,817
Turkey 1998	95.2	12.0	2,108
Yemen 1997	96.8	17.8	7,706
Central Asia			
Kazakhstan 1999	95.4	14.7	827
Kyrgyz Republic 1997	95.5	16.9	1,172
Uzbekistan 1996	96.3	17.3	1,392
South/Southeast Asia			
Bangladesh 1999-2000	97.3	30.5	4,214
Cambodia 2000	96.1	21.2	4,657
India 1998-99	96.5	25.4	32,765
Indonesia 1997	96.4	23.9	9,768
Nepal 1996	97.7	31.0	4,375
Philippines 1998	88.6	12.8	4,566
Latin America/Caribbean			
Bolivia 1998	96.9	17.5	4,106
Brazil 1996	93.4	7.0	2,865
Colombia 1995	95.5	11.3	3,077
Dominican Republic 1996	92.9	7.6	2,654
Guatemala 1995	95.9	19.8	5,648
Haiti 2000	97.8	17.3	3,985
Nicaragua 1998	93.0	12.2	4,637
Peru 2000	98.2	20.6	7,013

Table A.4.17 Exclusive breastfeeding

Percentage of youngest children under six months of age living with the mother who are exclusively breastfed, Demographic and Health Surveys 1994-2001

Country	Percentage of children exclusively breastfed	Number
Sub-Saharan Africa		
Benin 1996	10.1	505
Burkina Faso 1998-99	5.5	639
Cameroon 1998	12.2	422
Central African Republic 1994-95	3.0	456
Chad 1996-97	1.9	808
Comoros 1996	3.2	186
Côte d'Ivoire 1994	3.0	663
Eritrea 1995	58.9	448
Ethiopia 2000	54.5	1,067
Gabon 2000	5.2	400
Ghana 1998	31.5	291
Guinea 1999	11.2	661
Kenya 1998	12.6	517
Madagascar 1997	47.9	662
Malawi 2000	44.0	1,256
Mali 1995-96	8.4	1,039
Mozambique 1997	30.3	757
Namibia 2000	18.7	408
Niger 1998	0.8	856
Rwanda 2000	83.5	773
Tanzania 1996	29.1	663
Togo 1998	10.5	657
Uganda 2000-01	63.4	704
Zambia 1996	18.8	654
Zimbabwe 1999	31.9	342
North Africa/West Asia/Europe		
Egypt 2000	56.6	1,191
Jordan 1997	11.0	490
Turkey 1998	7.1	357
Central Asia		
Kazakhstan 1999	35.8	113
South/Southeast Asia		
Bangladesh 1999-2000	46.4	763
Cambodia 2000	11.4	800
India 1998-99	46.7	5,550
Indonesia 1997	43.0	1,540
Nepal 1996	74.9	677
Philippines 1998	37.5	722
Latin America/Caribbean		
Bolivia 1998	50.6	600
Brazil 1996	29.4	433
Colombia 1995	11.5	435
Dominican Republic 1996	18.0	384
Guatemala 1995	46.4	902
Haiti 2000	23.6	531
Nicaragua 1998	21.9	716
Peru 2000	67.2	1,025

Table A.4.18 Postpartum amenorrhea, abstinence, and insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, Demographic and Health Surveys 1994-2001

Country	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility	Number of births
Sub-Saharan Africa				
Benin 1996	13.4	15.8	18.9	2,845
Burkina Faso 1998-99	15.9	19.2	22.6	3,561
Cameroon 1998	10.7	11.9	15.5	2,416
Central African Republic 1994-95	14.1	10.4	16.4	2,807
Chad 1996-97	15.5	3.7	16.6	4,377
Comoros 1996	6.5	2.4	8.2	1,116
Côte d'Ivoire 1994	12.3	11.8	16.6	3,921
Eritrea 1995	14.2	2.7	16.6	2,556
Ethiopia 2000	19.0	2.4	19.6	7,091
Gabon 2000	7.8	9.5	11.7	2,432
Ghana 1998	10.9	8.5	14.0	1,888
Guinea 1999	11.6	22.1	22.3	3,355
Kenya 1998	8.9	3.1	11.1	3,414
Madagascar 1997	10.9	3.5	12.0	3,856
Malawi 2000	12.7	5.8	14.5	7,590
Mali 1995-96	13.6	2.8	14.4	5,931
Mozambique 1997	13.7	11.6	16.5	4,156
Namibia 2000	9.7	7.9	18.3	2,426
Niger 1998	15.8	2.2	16.2	4,923
Rwanda 2000	14.3	0.6	15.3	4,762
Tanzania 1996	12.1	5.6	15.7	4,214
Togo 1998	14.0	13.4	17.8	3,880
Uganda 2000-01	11.5	2.1	12.2	4,611
Zambia 1996	11.5	4.7	14.1	4,362
Zimbabwe 1999	12.4	3.2	15.6	2,159
North Africa/West Asia/Europe				
Egypt 2000	3.8	1.7	4.0	6,896
Jordan 1997	3.6	1.7	3.8	3,766
Turkey 1998	3.3	1.9	4.1	2,078
Yemen 1997	6.1	1.7	6.4	7,653
Central Asia				
Kazakhstan 1999	6.2	1.9	6.9	822
Kyrgyz Republic 1997	6.7	1.7	7.1	1,159
Uzbekistan 1996	5.3	1.8	5.4	1,379
South/Southeast Asia				
Bangladesh 1999-2000	7.9	2.0	8.4	4,180
Cambodia 2000	9.0	3.0	9.6	4,599
India 1998-99	8.1	3.0	9.5	32,655
Indonesia 1997	5.7	2.4	7.4	9,685
Nepal 1996	10.3	3.0	11.3	4,343
Philippines 1998	4.9	2.3	6.2	4,530
Latin America/Caribbean				
Bolivia 1998	9.6	2.7	11.0	4,080
Brazil 1996	3.0	2.2	4.3	2,847
Colombia 1995	4.3	2.2	5.6	3,059
Dominican Republic 1996	3.5	2.3	4.3	2,621
Guatemala 1995	10.5	2.4	11.6	5,609
Haiti 2000	6.2	2.9	9.4	3,927
Nicaragua 1998	5.0	2.5	6.4	4,610
Peru 2000	9.0	2.5	9.9	6,967

Table A.4.19 Current use of contraception

Percentage of currently married women age 15-49 using a contraceptive method (modern, traditional, and any method), Demographic and Health Surveys 1994-2001

Country	Contraceptive use			Number
	Modern method	Traditional method	Any method	
Sub-Saharan Africa				
Benin 1996	3.4	13.0	16.4	4,198
Burkina Faso 1998-99	4.8	7.0	11.9	5,181
Cameroon 1998	7.1	12.3	19.3	3,676
Central African Republic 1994-95	3.2	11.5	14.8	4,083
Chad 1996-97	1.2	3.0	4.1	5,832
Comoros 1996	11.4	9.6	21.0	1,634
Côte d'Ivoire 1994	4.3	7.1	11.4	5,271
Eritrea 1995	4.0	4.0	8.0	3,371
Ethiopia 2000	6.3	1.7	8.1	9,789
Gabon 2000	13.4	19.4	32.7	3,348
Ghana 1998	13.3	8.7	22.0	3,131
Guinea 1999	4.2	2.0	6.2	5,561
Kenya 1998	31.5	7.5	39.0	4,834
Madagascar 1997	9.7	9.7	19.4	4,435
Malawi 2000	26.1	4.5	30.6	9,452
Mali 1995-96	4.5	2.2	6.7	8,222
Mozambique 1997	5.1	0.5	5.6	6,530
Namibia 2000	42.6	1.1	43.7	2,610
Niger 1998	4.6	3.6	8.2	6,382
Rwanda 2000	5.7	7.6	13.2	5,052
Tanzania 1996	13.3	5.1	18.4	5,411
Togo 1998	7.0	16.5	23.5	5,819
Uganda 2000-01	18.2	4.6	22.8	4,881
Zambia 1996	14.4	11.5	25.9	4,902
Zimbabwe 1999	50.4	3.2	53.5	3,609
North Africa/West Asia/Europe				
Egypt 2000	53.9	2.2	56.1	14,382
Jordan 1997	37.7	14.9	52.6	5,337
Turkey 1998	37.7	26.1	63.9	5,921
Yemen 1997	9.8	11.0	20.8	9,786
Central Asia				
Kazakhstan 1999	52.8	13.3	66.1	3,018
Kyrgyz Republic 1997	48.9	10.7	59.5	2,675
Uzbekistan 1996	51.3	4.3	55.6	3,102
South/Southeast Asia				
Bangladesh 1999-2000	43.4	10.3	53.8	9,720
Cambodia 2000	18.8	5.0	23.8	9,071
India 1998-99	42.8	5.4	48.2	84,682
Indonesia 1997	54.7	2.7	57.4	26,886
Nepal 1996	26.0	2.5	28.5	7,982
Philippines 1998	28.2	19.6	47.8	8,336
Latin America				
Bolivia 1998	25.2	23.1	48.3	6,649
Brazil 1996	70.3	6.5	76.7	7,584
Colombia 1995	59.3	12.9	72.2	6,097
Dominican Republic 1996	59.2	4.4	63.7	4,983
Guatemala 1995	26.9	4.5	31.4	7,984
Haiti 2000	22.8	5.2	28.1	5,958
Nicaragua 1998	57.4	3.0	60.3	8,045
Peru 2000	50.4	18.5	68.9	15,628

Note: Modern method = female sterilization, pill, IUD, injectables, implants, male condom, female condom, diaphragm (where used), foam/jelly, and/or lactational amenorrhea method (LAM). Traditional method = periodic abstinence, withdrawal, and/or folk methods.

Table A.4.20 Unmet need for family planning or child spacing

Percentage of currently married women age 15-49 with unmet need for family planning or child spacing, Demographic and Health Surveys 1994-2001

Country	Unmet need	Number
Sub-Saharan Africa		
Benin 1996	25.7	4,198
Burkina Faso 1998-99	25.8	5,181
Cameroon 1998	19.7	3,676
Central African Republic 1994-95	16.2	4,083
Chad 1996-97	9.7	5,832
Comoros 1996	34.6	1,634
Côte d'Ivoire 1994	27.1	5,271
Eritrea 1995	27.5	3,371
Ethiopia 2000	35.2	9,789
Gabon 2000	28.0	3,348
Ghana 1998	33.5	3,131
Guinea 1999	24.2	5,561
Kenya 1998	23.9	4,834
Madagascar 1997	25.6	4,435
Malawi 2000	29.7	9,452
Mali 1995-96	25.7	8,222
Mozambique 1997	22.5	6,530
Namibia 2000	22.1	2,610
Niger 1998	16.6	6,382
Rwanda 2000	35.6	5,052
Tanzania 1996	23.9	5,411
Togo 1998	32.3	5,819
Uganda 2000-01	34.6	4,881
Zambia 1996	26.5	4,902
Zimbabwe 1999	12.9	3,609
North Africa/West Asia/Europe		
Egypt 2000	10.7	14,382
Jordan 1997	14.2	5,337
Turkey 1998	10.1	5,921
Yemen 1997	38.6	9,786
Central Asia		
Kazakhstan 1999	8.7	3,018
Kyrgyz Republic 1997	11.6	2,675
Uzbekistan 1996	13.7	3,102
South/Southeast Asia		
Bangladesh 1999-2000	15.3	9,720
Cambodia 2000	29.7	9,071
India 1998-99	15.8	84,682
Indonesia 1997	9.2	26,886
Nepal 1996	31.4	7,982
Philippines 1998	18.8	8,336

Continued...

Table A.4.20—Continued

Percentage of currently married women age 15-49 with unmet need for family planning or child spacing, Demographic and Health Surveys 1994-2001

Country	Unmet need	Number
Latin America/Caribbean		
Bolivia 1998	26.1	6,649
Brazil 1996	7.3	7,584
Colombia 1995	7.7	6,097
Dominican Republic 1996	12.5	4,983
Guatemala 1995	24.3	7,984
Haiti 2000	39.6	5,958
Nicaragua 1998	14.7	8,045
Peru 2000	10.2	15,628

Note: Unmet need for child spacing includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say that they want to wait two or more years for their next birth. Unmet need for child spacing also refers to fecund women who are not using any method of family planning and say that they are unsure whether they want another child or who want another child but are unsure when to have the birth, unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. Unmet need also includes those who are limiting the number of children and thereby refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of a better method of contraception).

Table A.4.21 Antenatal care

Among women age 15-49 who had a live birth in the three years preceding the survey, percentage who had at least one antenatal care visit with a trained medical professional (doctor, nurse/midwife) for the most recent birth and percentage who had at least four antenatal care visits with a trained medical professional for the most recent birth, by urban-rural residence, and percentage of women who received at least one tetanus toxoid (TT) injection for the most recent birth, Demographic and Health Surveys 1994-2001

	Percentage of women who had at least one antenatal visit with a trained medical professional for most recent birth				Percentage of women who had at least four antenatal visits with a trained medical professional for most recent birth				Percentage of women who received at least one tetanus toxoid injection for their most recent birth	
Country	Urban	Rural	All	Number	Urban	Rural	All	Number	TT injection	Number
Sub-Saharan Africa										
Benin 1996	88.2	76.8	80.5	2,564	63.2	49.5	53.9	2,564	72.5	2,572
Burkina Faso 1998-99	95.6	58.7	62.5	3,265	33.8	21.9	23.1	3,265	54.4	3,272
Cameroon 1998	92.5	74.3	79.1	2,101	68.6	48.1	53.5	2,101	71.1	2,119
Central African Republic 1994-95	89.7	50.1	66.1	2,381	52.8	24.2	35.8	2,381	68.6	2,442
Chad 1996-97	67.9	22.9	32.6	3,828	36.3	7.5	13.7	3,828	31.8	3,831
Comoros 1996	91.4	81.2	83.7	906	63.8	48.9	52.5	906	56.9	927
Côte d'Ivoire 1994	96.3	76.5	83.3	3,531	40.9	22.3	28.6	3,531	75.0	3,543
Eritrea 1995	87.2	40.5	50.3	2,193	67.6	16.3	27.1	2,193	34.8	2,178
Ethiopia 2000	63.2	21.8	26.0	6,318	41.1	6.0	9.6	6,318	26.1	6,296
Gabon 2000	98.1	86.2	94.9	2,103	70.5	43.6	63.3	2,103	80.5	2,102
Ghana 1998	94.0	87.3	89.0	1,714	79.5	56.5	62.2	1,714	81.7	1,726
Guinea 1999	95.2	67.5	74.6	2,989	73.5	41.3	49.6	2,989	72.9	3,061
Kenya 1998	95.9	91.5	92.3	2,945	70.0	58.4	60.6	2,945	90.4	2,991
Madagascar 1997	84.4	75.6	77.4	3,247	49.8	34.8	37.8	3,247	49.7	3,276
Malawi 2000	98.2	91.5	92.4	6,680	68.5	52.3	54.4	6,680	80.8	6,721
Mali 1995-96	80.2	34.5	46.2	5,021	54.8	16.5	26.2	5,021	51.8	5,140
Mozambique 1997	95.2	63.5	69.8	3,522	70.3	33.3	40.7	3,522	34.5	3,751
Namibia 2000	96.8	87.4	90.6	2,053	81.9	67.7	72.6	2,053	u	u
Niger 1998	90.2	30.3	39.9	4,226	35.3	7.0	11.5	4,226	34.7	4,224
Rwanda 2000	94.5	92.1	92.5	4,058	19.0	8.4	10.0	4,058	64.7	4,048
Tanzania 1996	97.1	88.7	90.2	3,605	78.4	64.4	66.9	3,605	92.9	3,723
Togo 1998	95.7	78.7	82.7	3,537	65.5	41.7	47.3	3,537	62.0	3,547
Uganda 2000-01	96.7	91.7	92.3	3,774	66.8	37.2	40.5	3,774	68.8	3,883
Zambia 1996	99.1	92.7	95.1	3725	80.7	64.2	70.5	3,725	83.6	3,771
Zimbabwe 1999	93.3	91.5	92.1	1,768	73.3	71.4	72.0	1,768	81.6	1,958
North Africa/West Asia/Europe										
Egypt 2000	71.8	46.3	56.1	5,784	61.6	30.8	42.5	5,784	73.1	5,976
Jordan 1997	97.0	93.3	96.3	2,954	88.3	79.0	86.6	2,954	37.6	2,932
Turkey 1998	80.5	56.9	72.0	1,843	54.9	30.6	46.1	1,843	45.5	1,828
Yemen 1997	63.0	28.1	36.0	6,065	32.1	6.1	11.9	6,065	17.4	6,079
Central										
Kazakhstan 1999	91.3	92.5	91.9	640	80.8	78.4	79.4	640	u	u
Kyrgyz Republic 1997	98.3	96.9	97.2	928	95.8	88.1	89.8	928	u	u
Uzbekistan 1996	96.1	93.5	94.3	1,133	88.3	81.8	83.8	1,133	u	u
South/Southeast Asia										
Bangladesh 1999-2000	59.7	29.5	34.5	3,813	29.6	6.2	10.1	3,813	81.0	3,822
Cambodia 2000	59.2	34.5	37.8	4,048	23.5	6.2	8.5	4,048	46.2	4,061
India 1998-99	86.9	60.1	66.0	28,605	55.8	22.7	30.0	28,605	76.0	28,578
Indonesia 1997	97.4	88.5	90.9	8,984	87.8	64.9	71.2	8,984	74.3	8,914
Nepal 1996	68.5	36.9	39.0	3,706	37.0	7.0	9.0	3,706	46.5	3,801
Philippines 1998	94.0	81.8	87.5	3,727	74.8	48.1	60.7	3,727	66.0	3,706
Latin America/Caribbean										
Bolivia 1998	82.5	54.1	70.6	3,485	64.9	29.4	50.1	3,485	49.2	3,432
Brazil 1996	93.8	73.2	89.1	2,462	87.2	58.3	80.6	2,462	61.6	2,427
Colombia 1995	91.1	72.6	84.9	2,679	82.1	53.5	72.5	2,679	81.1	2,673
Dominican Republic 1996	99.3	97.4	98.5	2,233	90.6	83.9	87.9	2,233	96.3	2,230
Guatemala 1995	73.8	44.4	54.1	4,607	63.0	33.7	43.3	4,607	53.8	4,576
Haiti 2000	89.3	73.8	79.0	3,353	59.7	33.4	42.2	3,353	69.3	3,363
Nicaragua 1998	92.3	76.9	85.2	3,953	74.8	51.6	64.1	3,935	87.1	3,929
Peru 2000	53.6	45.0	49.9	6,350	47.8	31.1	40.4	6,350	74.5	6,294

u = Unknown (question not asked)

Table A.4.22 Delivery care

Among women age 15-49 who had a live birth in the three years preceding the survey, percentge who received assistance during delivery from a trained medical professional for the most recent birth, by urban-rural residence, Demographic and Health Surveys 1994-2001

	Percentage of women who received assistance during delivery from a trained medical professional			
Country	Urban	Rural	Total	Number
Sub-Saharan Africa				
Benin 1996	79.4	56.2	63.7	2,597
Burkina Faso 1998-99	90.7	24.8	32.3	4,099
Cameroon 1998	84.6	49.3	58.8	2,148
Central African Republic 1994-95	77.6	22.8	45.0	2,446
Chad 1996-97	45.2	6.3	14.8	4,608
Comoros 1996	78.5	43.8	52.2	934
Côte d'Ivoire 1994	76.4	29.6	45.6	3,556
Eritrea 1995	63.5	9.6	20.9	2,202
Ethiopia 2000	36.8	2.2	6.2	7,978
Gabon 2000	93.4	69.1	87.5	2,766
Ghana 1998	77.9	34.9	46.1	2,311
Guinea 1999	76.2	22.0	36.3	4,043
Kenya 1998	71.8	38.0	44.2	3,007
Madagascar 1997	69.0	42.0	47.5	3,305
Malawi 2000	82.2	52.2	56.2	8,057
Mali 1995-96	78.9	24.9	38.9	5,175
Mozambique 1997	81.7	34.1	44.1	3,822
Namibia 2000	93.9	68.2	77.7	3,002
Niger 1998	69.1	8.1	17.9	4,242
Rwanda 2000	65.0	19.0	25.7	5,141
Tanzania 1996	82.2	39.3	47.9	4,577
Togo 1998	87.1	40.3	51.4	3,592
Uganda 2000-01	81.8	34.7	40.6	4,489
Zambia 1996	77.1	26.4	47.2	4,564
Zimbabwe 1999	90.3	66.1	74.5	2,770
North Africa/West Asia/Europe				
Egypt 2000	82.9	49.7	63.1	7,953
Jordan 1997	98.1	92.9	97.2	3,672
Turkey 1998	90.0	73.5	84.2	2,617
Yemen 1997	49.0	15.0	23.1	7,343
Central Asia				
Kazakhstan 1999	98.2	99.6	99.0	1,129
Kyrgyz Republic 1997	99.2	97.7	98.0	1,025
Uzbekistan 1996	100.0	96.0	97.3	1,213
South/Southeast Asia				
Bangladesh 1999-2000	34.6	8.5	13.0	5,263
Cambodia 2000	62.0	30.1	34.4	5,714
India 1998-99	74.2	33.7	42.6	28,779
Indonesia 1997	80.0	38.9	50.1	13,170
Nepal 1996	48.1	6.8	9.5	3,813
Philippines 1998	80.2	40.1	59.3	4,968
Latin America/Caribbean				
Bolivia 1998	80.5	35.2	62.8	4,616
Brazil 1996	94.0	79.1	90.6	3,635
Colombia 1995	94.2	73.3	87.4	3,771
Dominican Republic 1996	98.3	92.9	96.2	3,067
Guatemala 1995	68.6	24.8	40.1	5,679
Haiti 2000	54.0	12.5	27.1	4,254
Nicaragua 1998	86.9	49.1	70.1	5,593
Peru 2000	71.8	23.3	51.6	9,535

Table A.4.23 Knowledge of HIV/AIDS prevention methods

Percentage of women age 15-49 who have heard about HIV/AIDS, and of those, percentage who know that people can reduce the risk of getting the AIDS virus by abstaining from sex, by having sex with just one partner who has no other partners, and by using condoms, Demographic and Health Surveys 1994-2001

	Women's knowledge of HIV/AIDS		Of those who have heard about HIV/AIDS, percentage who know specific preventive measures			
Country	Percentage who have heard about HIV/AIDS	Number	Abstain from sex	Limit sex to one uninfected sex partner	Use condoms	Number
Sub-Saharan Africa						
Benin 1996	81.7	5,491	6.1	43.8	26.9	4,488
Burkina Faso 1998-99	87.2	6,444	6.7	48.7	23.9	5,619
Cameroon 1998	89.7	5,501	12.5	38.6	40.6	4,936
Central African Republic 1994-95	92.9	5,884	15.7	49.3	31.4	5,466
Chad 1996-97	60.0	7,454	15.8	45.2	11.1	4,470
Comoros 1996	97.9	3,050	1.2	35.9	35.6	2,985
Côte d'Ivoire 1994	93.2	8,099	4.8	62.5	32.8	7,549
Eritrea 1995	72.2	5,053	22.4	47.3	34.6	3,649
Ethiopia 2000	84.7	15,363	12.7	62.1	20.2	13,010
Gabon 2000	97.7	6,182	19.2	27.1	71.2	6,040
Ghana 1998	96.7	4,843	6.9	63.3	22.1	4,683
Guinea 1999	94.9	6,751	28.3	68.0	23.2	6,409
Kenya 1998	99.0	7,880	27.9	33.2	37.5	7,804
Madagascar 1997	69.1	7,046	4.0	38.0	27.2	4,867
Malawi 2000	98.9	13,220	67.9	24.2	55.2	13,076
Mali 1995-96	76.7	9,704	12.4	23.8	24.3	7,443
Mozambique 1997	82.3	8,772	1.1	27.5	15.4	7,220
Namibia 2000	98.1	6,752	35.4	31.6	82.5	6,626
Niger 1998	54.6	7,575	12.8	22.8	21.4	4,136
Rwanda 2000	99.7	10,419	76.5	21.2	37.1	10,384
Tanzania 1996	97.0	8,118	15.0	24.6	39.3	7,876
Togo 1998	95.6	8,566	7.8	38.2	34.4	8,186
Uganda 2000-01	99.8	7,244	49.8	49.1	54.6	7,227
Zambia 1996	99.6	8,021	28.6	48.7	38.4	7,986
Zimbabwe 1999	96.5	5,907	17.4	59.9	68.1	5,698
North Africa/West Asia/Europe						
Jordan 1997	97.9	5,548	13.3	30.5	0.3	5,430
Turkey 1998	84.3	8,573	5.9	16.9	15.2	7,226
Central Asia						
Kazakhstan 1999	97.7	4,800	14.4	49.4	36.9	4,688
South/Southeast Asia						
Bangladesh 1999-2000	30.8	10,543	7.5	6.1	15.5	3,245
Cambodia 2000	94.9	15,348	24.2	37.4	69.9	14,559
India 1998-99	40.3	89,197	6.7	40.0	19.8	36,417
Indonesia 1997	51.5	28,810	0.6	29.1	3.9	14,835
Nepal 1996	26.9	8,420	13.4	52.6	30.9	2,263
Latin America/Caribbean						
Bolivia 1998	78.8	11,185	12.7	55.9	45.7	8,809
Brazil 1996	99.6	12,611	3.1	8.7	80.8	12,558
Colombia 1995	98.8	11,140	5.3	50.4	71.7	11,010
Dominican Republic 1996	99.7	8,422	77.8	88.9	81.0	8,394
Guatemala 1995	71.1	12,394	14.1	23.8	29.9	8,811
Haiti 2000	98.0	5,125	11.5	32.7	40.3	5,021
Nicaragua 1998	95.6	13,631	8.8	24.8	56.2	13,033
Peru 2000	87.3	27,843	12.6	31.5	38.1	24,308

Table A.4.24 Urban-rural residence

Percentage of women age 15-49 living in urban and rural areas, Demographic and Health Surveys 1994-2001

Country	Urban	Rural	Number
Sub-Saharan Africa			
Benin 1996	39.7	60.3	5,685
Burkina Faso 1998-99	16.9	83.1	6,763
Cameroon 1998	35.3	64.7	5,617
Central African Republic 1994-95	42.6	57.4	6,077
Chad 1996-97	23.1	76.9	7,742
Comoros 1996	29.6	70.4	3,163
Côte d'Ivoire 1994	42.1	57.9	8,250
Eritrea 1995	32.6	67.4	5,019
Ethiopia 2000	18.2	81.8	15,542
Gabon 2000	80.2	19.8	7,091
Ghana 1998	35.9	64.1	4,865
Guinea 1999	32.2	67.8	7,042
Kenya 1998	23.2	76.8	8,136
Madagascar 1997	28.1	71.9	7,400
Malawi 2000	16.1	83.9	13,397
Mali 1995-96	31.7	68.3	9,923
Mozambique 1997	23.7	76.3	9,387
Namibia 2000	41.2	58.8	7,592
Niger 1998	20.4	79.6	7,580
Rwanda 2000	17.1	82.9	10,279
Tanzania 1996	23.3	76.7	8,514
Togo 1998	37.5	62.5	8,509
Uganda 2000-01	16.7	83.3	7,572
Zambia 1996	44.9	55.1	8,568
Zimbabwe 1999	38.6	61.4	6,082
North Africa/West Asia/Eruope			
Egypt 2000	45.9	54.1	22,827
Jordan 1997	83.2	16.8	10,507
Turkey 1998	66.5	33.5	9,262
Yemen 1997	27.9	72.1	15,446
Central Asia			
Kazakhstan 1999	49.0	51.0	5,192
Kyrgyz Republic 1997	33.5	66.5	4,042
Uzbekistan 1996	41.4	58.6	4,519
South/Southeast Asia			
Bangladesh 1999-2000	21.0	79.0	12,905
Cambodia 2000	17.6	82.4	15,736
India 1998-99	28.4	71.6	122,217
Indonesia 1997	32.5	67.5	39,121
Nepal 1996	9.2	90.8	10,328
Philippines 1998	56.7	43.3	14,847
Latin America/Caribbean			
Bolivia 1998	71.4	28.6	12,124
Brazil 1996	82.3	17.7	14,345
Colombia 1995	74.6	25.4	12,072
Dominican Republic 1996	67.1	32.9	9,401
Guatemala 1995	43.9	56.1	13,668
Haiti 2000	45.9	54.1	10,362
Nicaragua 1998	65.0	35.0	15,117
Peru 2000	70.0	30.0	31,099

Note: The Indonesia and Jordan data are based on de jure household populations.

Table A.4.25 Household amenities

Percentage of women age 15-49 living in houses without electricity, percentage living in houses with dirt floors, percentage living in houses without piped water, percentage living without access to toilet facilities, Demographic and Health Surveys 1994-2001

Country	Percentage of women without electricity	Percentage of women with dirt floors	Percentage of women without access to piped water	Percentage of women without access to toilet facilities	Number
Sub-Saharan Africa					
Benin 1996	83.1	44.1	69.4	71.0	5,491
Burkina Faso 1998-99	91.8	70.5	85.7	74.8	6,445
Cameroon 1998	54.5	51.9	61.0	8.7	5,501
Central African Republic 1994-95	95.0	82.0	78.4	26.4	5,884
Chad 1996-97	97.3	95.6	91.6	72.0	7,454
Comoros 1996	66.0	45.3	50.9	0.2	3,050
Côte d'Ivoire 1994	57.6	21.8	51.4	38.5	8,099
Eritrea 1995	70.5	75.0	73.3	77.2	5,054
Ethiopia 2000	85.1	90.7	80.8	79.0	15,367
Gabon 2000	19.4	17.1	21.0	1.7	6,183
Ghana 1998	55.9	13.8	58.2	21.6	4,843
Guinea 1999	79.3	51.3	76.6	41.7	6,753
Kenya 1998	84.4	62.7	67.2	14.6	7,881
Madagascar 1997	85.9	7.4	79.6	56.8	7,060
Malawi 2000	93.3	78.4	74.7	16.0	13,220
Mali 1995-96	89.9	74.2	80.1	25.9	9,704
Mozambique 1997	88.8	71.9	74.4	59.2	8,779
Namibia 2000	62.6	52.6	35.0	50.2	6,755
Niger 1998	90.9	82.6	80.7	78.0	7,577
Rwanda 2000	91.2	82.3	63.1	3.1	10,421
Tanzania 1996	88.0	75.4	61.3	12.4	8,120
Togo 1998	79.9	23.7	58.8	57.6	8,569
Uganda 2000-01	89.0	77.0	87.7	14.2	7,246
Zambia 1996	75.7	52.5	58.4	24.6	8,021
Zimbabwe 1999	60.0	27.5	53.2	24.3	5,907
North Africa/West Asia/Europe					
Egypt 2000	2.0	21.4	14.2	2.4	15,573
Jordan 1997	0.7	0.3	5.1	0.4	5,548
Turkey 1998	0.0	6.9	43.9	1.9	8,576
Yemen 1997	54.4	41.6	59.9	29.7	10,414
Central Asia					
Kazakhstan 1999	3.1	1.2	35.6	0.5	4,800
Kyrgyz Republic 1997	0.2	5.1	27.3	0.1	3,848
Uzbekistan 1996	0.4	15.4	24.2	0.0	4,415
South/Southeast Asia					
Bangladesh 1999-2000	66.0	82.9	93.5	18.1	10,544
Cambodia 2000	79.2	8.2	91.9	75.2	15,351
India 1998-99	39.5	u	63.2	64.3	90,303
Indonesia 1997	19.7	21.0	82.0	u	28,810
Nepal 1996	82.7	91.6	70.2	84.4	8,429
Philippines 1998	22.4	7.2	47.0	10.2	13,983
Latin America/Caribbean					
Bolivia 1998	21.3	25.7	20.3	28.8	11,187
Brazil 1996	5.2	5.0	25.7	9.2	12,612
Colombia 1995	6.5	9.5	11.9	11.5	11,140
Dominican Republic 1996	0.0	6.4	48.2	7.5	8,422
Guatemala 1995	36.0	47.6	34.9	14.6	12,403
Haiti 2000	56.6	40.6	41.3	34.0	10,159
Nicaragua 1998	24.7	41.1	29.7	11.7	13,634
Peru 2000	24.5	37.8	23.7	17.5	27,843

u = Unknown (question not asked)

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