

**Guidelines
for the
MEASURE DHS Phase II
Main Survey Report**

**Macro International Inc.
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TABLE OF CONTENTS

Acknowledgements		vii
Preface.....		viii
Table Symbols and Notations.....		x
CHAPTER 1	INTRODUCTION	
Table 1.1	Basic demographic indicators	2
Table 1.2	Results of the household and individual interviews	3
CHAPTER 2	HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS	
Table 2.1	Household population by age, sex, and residence	6
Table 2.2	Household composition	8
Table 2.3	Children’s living arrangements and orphanhood	9
Table 2.4.1	Educational attainment of the female household population	10
Table 2.4.2	Educational attainment of the male household population	11
Table 2.5	School attendance ratios	12
Table 2.6	Primary school grade repetition and dropout rates (working table)	14
Table 2.7	Household drinking water	16
Table 2.8	Household sanitation facilities.....	18
Table 2.9	Housing characteristics.....	19
Table 2.10	Household possessions	21
Table 2.11	Wealth quintiles.....	22
Table 2.12	Birth registration of children under age five.....	24
Figure 2.1	Population Pyramid	7
Figure 2.2	Age-specific Attendance Rates of the de facto Population 5 to 24 Years.....	15
CHAPTER 3	RESPONDENTS’ CHARACTERISTICS	
Table 3.1	Background characteristics of respondents.....	26
Table 3.2.1	Educational attainment: Women.....	27
Table 3.2.2	Educational attainment: Men.....	28
Table 3.3.1	Literacy: Women	29
Table 3.3.2	Literacy: Men	30
Table 3.4.1	Exposure to mass media: Women.....	31
Table 3.4.2	Exposure to mass media: Men.....	32
Table 3.5.1	Employment status: Women.....	33
Table 3.5.2	Employment status: Men	35
Table 3.6.1	Occupation: Women.....	36
Table 3.6.2	Occupation: Men	37
Table 3.7	Type of employment: Women	38
Table 3.8.1	Health insurance coverage: Women	39
Table 3.8.2	Health insurance coverage: Men	40
Table 3.9.1	Knowledge and attitude concerning tuberculosis: Women.....	41
Table 3.9.2	Knowledge and attitude concerning tuberculosis: Men.....	42
Table 3.10.1	Use of tobacco: Women	43
Table 3.10.2	Use of tobacco: Men.....	44
Figure 3.1	Women’s Employment Status in the Past 12 Months.....	34

CHAPTER 4 FERTILITY

Table 4.1	Current fertility.....	46
Table 4.2	Fertility by background characteristics.....	47
Table 4.3.1	Trends in age-specific fertility rates.....	48
Table 4.3.2	Trends in fertility.....	49
Table 4.4	Children ever born and living.....	50
Table 4.5	Birth intervals.....	51
Table 4.6	Age at first birth.....	52
Table 4.7	Median age at first birth.....	53
Table 4.8	Teenage pregnancy and motherhood.....	54
Figure 4.4	Trends in Fertility.....	49

CHAPTER 5 FAMILY PLANNING

Table 5.1	Knowledge of contraceptive methods.....	56
Table 5.2	Knowledge of contraceptive methods by background characteristics.....	57
Table 5.3.1	Ever use of contraception: Women.....	58
Table 5.3.2	Ever use of contraception: Men.....	59
Table 5.4	Current use of contraception by age.....	60
Table 5.5.1	Current use of contraception by background characteristics.....	61
Table 5.5.2	Trends in current use of contraception.....	62
Table 5.6	Number of living children at first use of contraception.....	63
Table 5.7	Use of social marketing brand pills and condoms.....	64
Table 5.8	Knowledge of fertile period.....	65
Table 5.9	Timing of sterilization.....	66
Table 5.10	Source of modern contraceptive methods.....	67
Table 5.11	Cost of modern contraceptive methods.....	68
Table 5.12	Informed choice.....	69
Table 5.13	First-year contraceptive discontinuation rates.....	70
Table 5.14	Future use of contraception.....	71
Table 5.15	Reason for not intending to use contraception in the future.....	72
Table 5.16	Preferred method of contraception for future use.....	73
Table 5.17	Exposure of respondents to family planning messages.....	74
Table 5.18	Contact of nonusers with family planning providers.....	75
Table 5.19	Husband/partner's knowledge of women's use of contraception.....	76
Figure 5.1	Trends in Contraceptive Use among Currently Married Women.....	62

CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY

Table 6.1	Current marital status.....	78
Table 6.2.1	Number of women's cowives.....	79
Table 6.2.2	Number of men's wives.....	80
Table 6.3	Age at first marriage.....	81
Table 6.4.1	Median age at first marriage: Women.....	82
Table 6.4.2	Median age at first marriage: Men.....	83
Table 6.5	Age at first sexual intercourse.....	84
Table 6.6.1	Median age at first sexual intercourse: Women.....	85
Table 6.6.2	Median age at first sexual intercourse: Men.....	86
Table 6.7.1	Recent sexual activity: Women.....	87
Table 6.7.2	Recent sexual activity: Men.....	88
Table 6.8	Postpartum amenorrhea, abstinence, and insusceptibility.....	89

Table 6.9	Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility by background characteristics.....	90
Table 6.10	Menopause	91
CHAPTER 7	FERTILITY PREFERENCES	
Table 7.1	Fertility preferences by number of living children.....	94
Table 7.2.1	Desire to limit childbearing: Women.....	95
Table 7.2.2	Desire to limit childbearing: Men.....	96
Table 7.3.1	Need and demand for family planning among currently married women.....	97
Table 7.3.2	Need and demand for family planning for all women and women who are not currently married	98
Table 7.4	Ideal number of children	99
Table 7.5	Mean ideal number of children by background characteristics.....	101
Table 7.6	Fertility planning status	102
Table 7.7	Wanted fertility rates	103
CHAPTER 8	INFANT AND CHILD MORTALITY	
Table 8.1	Early childhood mortality rates.....	106
Table 8.2	Early childhood mortality rates by socioeconomic characteristics.....	108
Table 8.3	Early childhood mortality rates by demographic characteristics.....	109
Table 8.4	Perinatal mortality	110
Table 8.5	High-risk fertility behavior	111
Figure 8.1	Mortality Trends.....	107
CHAPTER 9	REPRODUCTIVE HEALTH	
Table 9.1	Antenatal care.....	114
Table 9.2	Number of antenatal care visits and timing of first visit	115
Table 9.3	Components of antenatal care.....	116
Table 9.4	Tetanus toxoid injections.....	117
Table 9.5	Place of delivery	118
Table 9.6	Assistance during delivery.....	119
Table 9.7	Timing of first postnatal checkup	120
Table 9.8	Type of provider of first postnatal checkup	121
Table 9.9	Problems in accessing health care	122
CHAPTER 10	CHILD HEALTH	
Table 10.1	Child's weight and size at birth	124
Table 10.2	Vaccinations by source of information	125
Table 10.3	Vaccinations by background characteristics	126
Table 10.4	Vaccinations in the first year of life.....	127
Table 10.5	Prevalence and treatment of symptoms of ARI	129
Table 10.6	Prevalence and treatment of fever	131
Table 10.7	Availability at home of antimalarial drugs taken by children	132
Table 10.8	Prevalence of diarrhea	133
Table 10.9	Diarrhea treatment	135
Table 10.10	Feeding practices during diarrhea.....	136
Table 10.11	Knowledge of ORS packets or pre-packaged liquids	137
Table 10.12	Disposal of children's stools	138
Figure 10.1	Trends in Vaccination Coverage during the First Year of Life.....	128

CHAPTER 11 NUTRITION OF CHILDREN AND ADULTS

Table 11.1	Nutritional status of children	140
Table 11.2	Initial breastfeeding	145
Table 11.3	Breastfeeding status by age	147
Table 11.4	Median duration and frequency of breastfeeding	149
Table 11.5	Foods consumed by children in the day or night preceding the interview	151
Table 11.6	Infant and young child feeding (IYCF) practices	152
Table 11.7	Prevalence of anemia in children.....	155
Table 11.8	Micronutrient intake among children	158
Table 11.9	Presence of iodized salt in household.....	160
Table 11.10.1	Nutritional status of women.....	161
Table 11.10.2	Nutritional status of men	162
Table 11.11	Foods consumed by mothers in the day or night preceding the interview	164
Table 11.12.1	Prevalence of anemia in women	165
Table 11.12.2	Prevalence of anemia in men.....	166
Table 11.13	Micronutrient intake among mothers.....	169
Figure 11.1	Nutritional Status of Children by Age	143
Figure 11.2	Trends in Nutritional Status of Children under Five Years	144
Figure 11.3	Among Last Children Born in the Five Years Preceding the Survey Who Ever Received a Prolactal Liquid, the Percentage Who Received Various Types of Liquid.....	146
Figure 11.4	Infant Feeding Practices by Age	148
Figure 11.5	Trends in Infant Feeding Practices for Children 0-5 and 6-8 Months	148
Figure 11.6	Infant and Young Child Feeding (IYCF) Practices	154
Figure 11.7	Trends in Anemia Status among Children under Five Years.....	157
Figure 11.8	Trends in Nutritional Status among Women 15-49 Years	163
Figure 11.9	Trends in Anemia Status among Women 15-49 Years.....	168

CHAPTER 12 MALARIA

Table 12.1	Household possession of mosquito nets	172
Table 12.2	Use of mosquito nets by children	173
Table 12.3	Use of mosquito nets by women.....	174
Table 12.4	Prophylactic use of antimalarial drugs and use of Intermittent Preventive Treatment (IPT) by women during pregnancy	175
Table 12.5	Prevalence and prompt treatment of children with fever	176
Table 12.6	Type and timing of antimalarial drugs taken by children with fever	177
Table 12.7	Availability at home of antimalarial drugs taken by children with fever	179

CHAPTER 13 HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

Table 13.1	Knowledge of AIDS.....	182
Table 13.2	Knowledge of HIV prevention methods.....	183
Table 13.3.1	Comprehensive knowledge about AIDS: Women	184
Table 13.3.2	Comprehensive knowledge about AIDS: Men	186
Table 13.4	Knowledge of Prevention of Mother-to-Child Transmission of HIV	187
Table 13.5.1	Accepting attitudes towards those living with HIV/AIDS: Women	188
Table 13.5.2	Accepting attitudes towards those living with HIV/AIDS: Men	189
Table 13.6	Attitudes toward negotiating safer sexual relations with husband	190
Table 13.7	Adult support of education about condom use to prevent AIDS	191
Table 13.8.1	Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women	193
Table 13.8.2	Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men	195
Table 13.9	Payment for sexual intercourse and condom use at last paid sexual intercourse: Men	196
Table 13.10.1	Coverage of prior HIV testing: Women.....	197
Table 13.10.2	Coverage of prior HIV testing: Men.....	198

Table 13.11	Pregnant women counseled and tested for HIV	199
Table 13.12	Male circumcision	200
Table 13.13	Self-reported prevalence of sexually-transmitted infection (STIs) and STI symptoms.....	201
Table 13.14	Prevalence of medical injections	203
Table 13.15	Comprehensive knowledge about AIDS and of a source of condoms among youth.....	206
Table 13.16	Age at first sexual intercourse among youth.....	207
Table 13.17	Condom use at first sexual intercourse among youth	209
Table 13.18	Premarital sexual intercourse and condom use during premarital sexual intercourse among youth	210
Table 13.19.1	Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Women.....	211
Table 13.19.2	Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Men.....	212
Table 13.20	Age-mixing in sexual relationships among women age 15-19	214
Table 13.21	Drunkenness during sexual intercourse among youth	215
Table 13.22	Recent HIV tests among youth	216
Figure 13.1	Perceptions and Beliefs about Abstinence and Faithfulness.....	192
Figure 13.2	Women and Men Seeking Advice or Treatment for STIs.....	202
Figure 13.3	Type of Facility Where Last Medical Injection Was Received.....	204
Figure 13.4	Percentage of Men and Women whose Last Injection was Given with a Syringe and Needle Taken from a New Unopened Package, by Type of Facility where Received Last Injection	205
Figure 13.5	Trends in Age at First Sex	208
Figure 13.6	Abstinence, Being Faithful and Condom Use (ABC) among Young Women and Men.....	213

CHAPTER 14 HIV PREVALENCE

Table 14.1	Coverage of HIV testing by residence and region	220
Table 14.2	Coverage of HIV testing by selected background characteristics	221
Table 14.3	HIV prevalence by age	223
Table 14.4	HIV prevalence by socioeconomic characteristics	225
Table 14.5	HIV prevalence by demographic characteristics	226
Table 14.6	HIV prevalence by sexual behavior	227
Table 14.7	HIV prevalence among young people by background characteristics	228
Table 14.8	HIV prevalence among young people by sexual behavior	229
Table 14.9	HIV prevalence by other characteristics	230
Table 14.10	Prior HIV testing by current HIV status	230
Table 14.11	HIV prevalence by male circumcision	231
Table 14.12	HIV prevalence among couples	232

CHAPTER 15 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

Table 15.1	Employment and cash earnings of currently married women and men.....	234
Table 15.2.1	Control over women's cash earnings and relative magnitude of women's cash earnings: Women	235
Table 15.2.2	Control over men's earnings.....	236
Table 15.3	Women's control over her own earnings and over those of her husband	237
Table 15.4.1	Women's participation in decision making	238
Table 15.4.2	Women's participation in decision making according to men.....	238
Table 15.5.1	Women's participation in decision making by background characteristics	239
Table 15.5.2	Men's attitude toward wives' participation in decision making	241
Table 15.6.1	Attitude toward wife beating: Women.....	242
Table 15.6.2	Attitude toward wife beating: Men.....	243
Table 15.7.1	Attitude toward refusing sexual intercourse with husband: Women	244
Table 15.7.2	Attitude toward refusing sexual intercourse with husband: Men.....	245
Table 15.7.3	Men's attitude towards a husband's rights when his wife refuses to have sexual intercourse	246
Table 15.8	Indicators of women's empowerment.....	247
Table 15.9	Current use of contraception by women's status	248

Table 15.10	Women’s empowerment and ideal number of children and unmet need for family planning	249
Table 15.11	Reproductive health care by women’s empowerment	250
Table 15.12	Early childhood mortality rates by indicators of women’s empowerment	251
Figure 15.1	Number of Decisions in which Currently Married Women Participate	240

CHAPTER 16 ORPHANS AND VULNERABLE CHILDREN CARE & SUPPORT

Table 16.1	Children’s living arrangements and orphanhood	254
Table 16.2	Orphans and vulnerable children (OVC)	255
Table 16.3	School attendance by survivorship of parents and OVC status	256
Table 16.4	Possession of basic material needs by orphans and vulnerable children	257
Table 16.5	Orphans not living with siblings	258
Table 16.6	Underweight orphans and vulnerable children	259
Table 16.7	Sexual intercourse before age 15 of orphans and vulnerable children	260
Table 16.8	Succession planning	261
Table 16.9	Widows dispossessed of property	262
Table 16.10	External support for very sick persons	263
Table 16.11	External support for orphans and vulnerable children	264

APPENDIX A SURVEY DESIGN

Table A.1	Sample implementation: Women	266
Table A.2	Sample implementation: Men	267
Table A.3	Coverage of HIV testing by social and demographic characteristics: Women	268
Table A.4	Coverage of HIV testing by social and demographic characteristics: Men	269
Table A.5	Coverage of HIV testing by sexual behavior characteristics: Women	270
Table A.6	Coverage of HIV testing by sexual behavior characteristics: Men	271

APPENDIX B ESTIMATES OF SAMPLING ERRORS

Table B.1.1	List of selected variables for sampling errors for the women sample [country, year]	274
Table B.1.2	List of selected variables for sampling errors for the men sample [country, year]	275
Table B.2.1	Sampling errors for the total sample for women, [country, year]	276

APPENDIX C DATA QUALITY TABLES

Table C.1	Household age distribution	280
Table C.2.1	Age distribution of eligible and interviewed women	281
Table C.2.2	Age distribution of eligible and interviewed men	281
Table C.3	Completeness of reporting	282
Table C.4	Births by calendar year	283
Table C.5	Reporting of age at death in days	284
Table C.6	Reporting of age at death in months	284
Table C.7	Nutritional status of children by NCHS/CDC/ WHO International Reference Population	285

APPENDIX D INDICATORS

Millennium Development Goal Indicators	288
UNICEF World Fit for Children Indicators	289
HIV/AIDS Indicators	292

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Preface

This document is a description of the contents of the main survey report for the Demographic and Health Surveys. The report is intended to convey the main results of the survey in a timely and concise fashion. It is scheduled for publication 9-12 months after the completion of the fieldwork. Not all tables are relevant for every country, and some countries will want to add a few tables on country-specific subjects. The Guidelines complement the 2006 versions of the DHS Model Survey Questionnaires. Those survey instruments are substantially longer than previous model DHS Questionnaires, primarily because they incorporate topics formerly addressed in separate modules—topics such as malaria, HIV prevalence, information on orphans and vulnerable children, and support for chronically ill household members. Accordingly, this is an expanded version of DHS Guidelines and consists of over 175 tables contained in 16 substantive chapters. These chapters provide information on the demographic and socioeconomic characteristics of the population, levels of fertility and childhood mortality, family planning, women's status, malaria, orphanhood, chronically ill household members and HIV/AIDS, to name some of the main topics covered.

The purpose of the Guidelines is to provide model tables that set forth the major findings of the survey in manner that will be useful to policy makers and program managers. The Guidelines provides guidance concerning the most important indicators to be presented in survey report, the level of analysis expected and ensures timely dissemination of survey results—which in the case of the main survey report means in less than a year following the end of data collection. The data are presented in terms of national level statistics and for population subgroups such as those defined by age, education, marital status, economic status, urban/rural residence and region of the country. When appropriate to a topic, further data desegregations are shown. For example, on the topic of HIV knowledge and behavior, detailed tabulations are shown for younger respondents (i.e., for the population age 15 to 24) and, on the topic of gender roles, health outcomes are shown by indices of women's status.

The level of analysis in the report is primarily descriptive and is particularly useful for assessing health and demographic conditions in a population, for identifying underserved population subgroups and for tracking the progress of intervention programs with successive surveys. While the main survey report is not designed to provide complex analysis due to various constraints, it should indicate areas where more detailed, complex analysis would be fruitful.

It is not expected that all of the tables in the Guidelines will be present in all country reports. For various reasons, certain data will not be collected in some surveys. This is particularly the case when reliable data on a topic are available from other sources or a topic is not relevant to a country, e.g., malaria in unaffected regions of the world. Nevertheless, for data collected in different survey in different areas of the world, Guidelines ensures a consistent level of analysis and presentation of results.

The model tables cover all of the major topics of interest. There are, however, questions included in the questionnaire which are not represented in this main survey report, partly because choices had to be made to restrict the length of the report, and, in other instances, because the topics will require much more extensive analysis than is appropriate here.

Many tables include background variables such as urban-rural residence, region, education, and household wealth. In some countries other characteristics also might be important (e.g., religion or ethnicity) and could be added.

Chapter 1 is introductory and presents the background of the survey, its objectives, and a brief summary of the survey procedures, sample design and response rates. (Implementation details are in Appendix A). The chapter begins with a description of the country and its population history.

Chapters 2 and 3 are intended to set the stage for the population and health chapters that follow. Chapter 2 describes the background characteristics of the household population, and their dwelling conditions. Chapter 3 contains tables describing eligible respondents by background characteristics, use of tobacco products, and attitudes concerning tuberculosis.

Chapter 4 describes the current and past fertility of the population and includes a table on trends in fertility. The chapter also presents information on the beginning of a woman's childbearing, with tabulations on age at first birth and current teenage fertility behavior.

Chapter 5 on family planning includes data on knowledge of contraception, source of supply, acceptability, use, attitudes toward contraception, intention to use in the future, reasons for nonuse, informed choice, exposure to media messages about family planning, and a variety of related topics.

Chapter 6 covers factors other than contraception that regulate the level of fertility. It includes marriage patterns, sexual activity, postpartum insusceptibility, and menopause.

Chapter 7 covers fertility preferences and documents respondents' ideal number of children, and the unmet need for contraception.

Chapter 8 describes the current and past levels of infant and child mortality as well as differentials in mortality due to demographic and background characteristics. It also includes information on perinatal mortality and the extra risk incurred by certain reproductive behaviors.

Chapter 9 covers reproductive health and women's health in general. The chapter describes maternal care during pregnancy and delivery, and postnatal care, as well as general access to health services, and exposure to injections.

Chapter 10 covers child health and describes birth weight and size, immunization and the extent and the prevalence and treatment of important childhood diseases (diarrhea, acute respiratory infection, and fever).

Chapter 11 covers nutritional concerns for children and for women including nutritional status, breastfeeding and complementary foods, food diversity, and micronutrients.

Chapter 12 on malaria is used when malaria-related questions have been asked in the household and individual questionnaires. It describes the availability and use of mosquito nets by women and children and the prophylactic and treatment use of antimalarial drugs.

Chapter 13 covers information on knowledge and behavior concerning HIV/AIDS and STIs and the use of condoms. More detailed information is included when the HIV/AIDS Module questions have been asked.

Chapter 14 is for surveys where HIV testing has been performed and is primarily based on respondent's who received the test. The chapter reports the response rate of testing and presents the HIV prevalence rates.

Chapter 15 shows information on indicators of women's empowerment, develops three empowerment indicators, and relates those indicator to select demographic and health outcomes.

Chapter 16 is used for reports where the questionnaires include the questions from the Orphans and Vulnerable Children's (OVC) and Care and Support modules. The chapter covers the prevalence of orphanhood and vulnerability, describes selected situational aspects of OVC and care and support received by households with OVC and chronically ill members.

Table Symbols and Notations

The following symbols should be used to represent special indications in tables:

<u>Symbol</u>	<u>Significance</u>
na	Not applicable
u	No information
[] Square brackets	Truncated, censored
() Parentheses	Based on a small number of cases
* Asterisk	Based on too few cases to show
0.0%	Less than 0.05%

Superscript lower case letters should be used to footnote numbers in tables. To footnote stub and column heads, superscript numbers should be used following letters and superscript lower case letters should be used following numbers. A footnote in a title or subtitle should never be used; a general note (i.e., “Note:”) should be used instead.

Tables should be numbered consecutively within chapters.

Unless otherwise indicated in the specific table, percentages should be to one decimal place, for example 5.7%.

Weighted numbers of cases should be expressed as whole numbers (no decimals).

For tables in which the number of cases do not add up to the “total” column because some category or categories are not shown separately, a general footnote should appear at the bottom of the table, indicating that the total includes “x” number of cases for each dropped category, which are not shown separately.

Rounding

Percentages should be rounded to nearest tenth of a percent, 5 hundredths rounds up to next tenth. Numbers should be rounded to nearest unit, 5 tenths rounds up to next unit. Some examples follow.

Percentages:	23.100% to 23.149% rounds to 23.1%; 23.150% to 23.199% rounds to 23.2%
Numbers:	1215.0 to 1215.4 rounds to 1215; 1215.5 to 1215.9 rounds to 1216.

Decimals

Most statistics are given to three significant digits.

Percentages:	one decimal place
Total fertility rate (TFR):	one decimal place (expressed per woman)
Age-specific fertility rates (ASFR):	no decimal place (expressed per 1000 women)
General fertility rate (GFR):	no decimal place (expressed per 1000 women)
Crude birth rate (CBR):	no decimal place (expressed per 1000 persons)
Mortality rates	no decimal place
Mean number of children ever born and of living children:	two decimal places (in Table 4.2 only)
Other means:	one decimal place
Medians:	one decimal place
Risk ratios:	two decimal places

Minimum number of cases

The minimum number of cases for a statistic is based on the unweighted number of cases. For most statistics, parentheses will be used if based on 25 to 49 cases and an asterisk if based on fewer than 25 cases.

For fertility rates, including the TFR, parentheses are used if based on 125 to 249 person-years of exposure, and not shown if fewer than 125 person-years of exposure.

For mortality rates, parentheses are used if based on 250 to 499 children exposed in any of the component rates, and an asterisk if based on fewer than 250 children.

For contraceptive discontinuation rates, rates based on 125 to 249 exposed women in any month up to month 12 are shown in parentheses. Rates based on fewer than 125 exposed women are not shown.

Medians from smoothed data are shown in parentheses when the denominator of the smoothed percentage for the group preceding the first group which falls below 50 percent plus the number of cases in the adjacent categories that are used for smoothing that group is based on 25 to 49 cases. If this denominator is less than 25 cases then the median is not shown.

For fertility and mortality rates, and current status medians (Tables 6.9 and 11.4), the tabulation program will automatically indicate which values should be in parentheses (in this case the values in the affected cells will be displayed with a negative sign) and which values are not to be shown (in this case the values in the affected cells will have a dash or an asterisk).

Missing values

Many of the tables in this tabulation plan provide cross-tabulations of respondents by background characteristics (e.g., age, residence, region or education) and a substantive variable. The substantive variable may be either a percent distribution across mutually exclusive categories (e.g., current use of contraceptive methods, Table 5.4) or the percentage of respondents possessing each of a series of specific characteristics (ever-use of specific contraceptives, Table 5.3). In these tables, values can be missing for either the background variable or the substantive variable.

In the case of background variables, missing values are not shown. However, the “total” row or column should be footnoted to indicate that it includes cases with missing values for specific background variables (e.g., “Total includes 7 cases for which education level is missing and 5 cases for which birth size is missing”).

In the case of missing values on the substantive variables, the treatment differs depending on whether the table shows 1) a percent distribution or 2) individual cell percentages of respondents that do not sum to 100.0 percent. For tables presenting a percent distribution that sums to 100.0 percent, missing values must be shown when they account for at least 1 percent of cases in any row. When missing values account for less than 1 percent of the distribution in every row, they can be shown or not at the author’s discretion. For tables showing individual cell percentages of respondents, rows of missing values are not shown. Medians are based on respondents with numerical answers to the questions on which the medians are based: missing, don’t know and other non-numerical responses are excluded from the calculation.

Figures

All figures should display percentages as integers (whole numbers), with no decimal places. Where numbers do not add to 100 percent, a footnote should be added to the bottom left hand corner stating that percentages do not add to 100 due to rounding. Data entered in the data table should be identical to the data as they appear in the related table in the report, or in the working table, that is, they should be entered to one decimal place. However, in the case of a pie chart, when the data add to more or less than 100, the pie should not be recalculated to 100. If there is a missing/don’t know category that is less than 0.5 percent, it should be left out of the pie chart. In this case too, the pie should not be recalculated to 100.

Measurement of Wealth Index

In the tables presented in the reports, information on the wealth index is based on data collected in the DHS household questionnaire. This questionnaire includes questions concerning the household's ownership of a number of consumer items such as a fan to a television and car; dwelling characteristics such as flooring material; type of drinking water source; toilet facilities; and other characteristics that are related to wealth status.

Each household asset for which information is collected is assigned a weight or factor score generated through principal components analysis. The resulting asset scores are standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one.

These standardized scores are then used to create the break points that define wealth quintiles as follows. Each household is assigned a standardized score for each asset, where the score differs depending on whether or not the household owned that asset (or, in the case of sleeping arrangements, the number of people per room). These scores are summed by household, and individuals are ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles -- five groups with the same number of individuals in each.

A single asset index is developed on the basis of data from the entire country sample and used in all the tabulations presented. Separate asset indices are not prepared for rural and urban population groups on the basis of rural or urban data, respectively.

Wealth quintiles are expressed in terms of quintiles of individuals in the population, rather than quintiles of individuals at risk for any one health or population indicator. (Thus, for example, the quintile rates for infant mortality refer to the infant mortality rates per 1,000 live births among all people in the population quintile concerned, as distinct from quintiles of live births or newly born infants, who constitute the only members of the population at risk of mortality during infancy.)

This approach to defining wealth quintiles has the advantage of producing information directly relevant to the principal question of interest, for example, the health status or access to services for the poor in the population as a whole. This choice also facilitates comparisons across indicators for the same quintile, since the quintile denominators remain unchanged across indicators. However, some types of analysis may require data for quintiles of individuals at risk.

All health, nutrition and population indicators are calculated after applying the sampling weights so that the resulting numbers are generalizable to the total population. For each indicator in these tables, the total or population average presented is the weighted sum of the quintile values for that indicator, where the weight assigned to each quintile value is the proportion of the total number of individuals at risk in that quintile. The total value for indicators produced by this weighting scheme are representative of the total population, as they take into account the fact that the numbers of individuals at risk may vary across wealth quintiles (which, as noted earlier, are defined on the basis of individuals in the population). Similarly, each quintile value itself can be reproduced as a weighted average of urban/rural rates (weighted by proportions urban/rural) or the male/female rates (weighted by the proportion male/female). As a result of this weighting scheme, the population average for a given indicator presented in the tables will usually differ from a simple mean of the population subgroups.

The tables do not show standard errors for the quintile specific (or gender- or residence-specific) indicators presented. Instead, where standard errors are likely to be unacceptably high due to small sample sizes, estimates are presented in parentheses or replaced by an asterisk. These sample sizes refer to the number of sample observations before DHS sampling weights are applied.

CHAPTER 1

INTRODUCTION

1.1 History, Geography and Economy

A brief introduction to the country is necessary in order to place the survey findings in an appropriate context. The description should emphasize features relevant to interpretation of the findings, particularly explanatory or background variables used in the tabulations. Urban-rural residence, region, education, and religion are the most common explanatory variables. The educational system could be outlined and major changes over the last 30 years should be mentioned. The classification of urban and rural areas and some discussion of urban-rural migration are helpful. The distinguishing features of major regions and religions should be given.

1.2 Population

A brief synopsis of population size and growth is required. Detailed findings from previous fertility or family planning surveys should not be included at this point but discussed in the substantive chapters, where they can be compared with the results from this survey. A discussion of the main sources of demographic information is useful.

1.3 Objectives of the Survey

Both the broad objectives and country-specific priorities should be described.

1.4 Organization of the Survey

A summary account of the agency (or agencies) responsible for survey design and implementation, plus a description of any organizational structure created especially for the survey may be included. The timetable of the main phases should be presented. A brief summary of the survey, the procedures undertaken to ensure data quality, and a discussion of response rates should be given here. Details of the fieldwork and the sample design should be presented in an appendix.

Table 1.1 Basic demographic indicators		
Indicators	XX Census 19..	XY Census 19..
Population		
Intercensal growth rate (percent)		
Density (population/km ²)		
Percent urban		
Life expectancy (years)		
Male		
Female		
Source:		

This table provides a summary of basic demographic indicators available in the country from censuses. These indicators from different points in time also give an idea of major demographic trends experienced by the country. In order to assess their comparability, it is important to supply proper references. Moreover, it should be mentioned if some of these indicators are not calculated for standard reference periods. In cases where regional data on these indicators exist in the country, they should also be cited in the text to show regional differentials in these indicators.

Table 1.2 Results of the household and individual interviews			
Number of households, number of interviews, and response rates, according to residence (unweighted), [country, year]			
Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected			
Households occupied			
Households interviewed			
Household response rate ¹			
Interviews with women age 15-49			
Number of eligible women			
Number of eligible women interviewed			
Eligible women response rate ²			
Interviews with men age 15-54[59]			
Number of eligible men			
Number of eligible men interviewed			
Eligible men response rate ²			
¹ Households interviewed / households occupied			
² Respondents interviewed / eligible respondents			

This table presents information on the number of households selected and interviewed and the number of eligible women and of eligible men identified and interviewed. It also provides the response rates for households, women and men. A more detailed percent distribution of the results of the household and individual interviews by region is presented in Appendix A.

CHAPTER 2

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

In the following substantive chapters of this report, a number of demographic and health related topics (e.g., respondent characteristics, fertility, contraceptive behavior, infant and child mortality, etc.) are viewed across different subgroups of the population. One focus of this chapter is to describe the environment in which women and children live. This description shows general characteristics of the population such as age-sex structure, literacy and education, household arrangements (headship, size) and housing facilities (sources of water supply, sanitation facilities, dwelling characteristics and household possessions). A distinction is made between urban and rural settings where many of these indicators usually differ.

This chapter should also provide insights on the meaning of major characteristics in the context of the country and non-DHS explanatory information should be brought in to complement and expand the information given in the DHS tabulations.

Besides providing the background for better understanding of many social and demographic phenomena discussed in the following chapters, this general description is useful for assessing the level of economic and social development of the population.

Table 2.1 Household population by age, sex, and residence

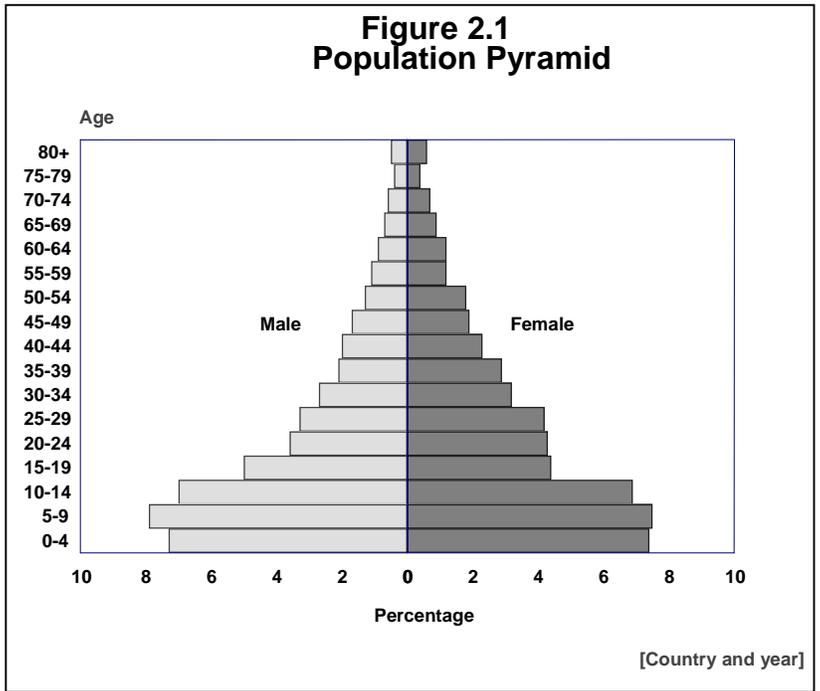
Percent distribution of the de facto household population by five-year age groups, according to sex and residence, [country, year]

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5									
5-9									
10-14									
15-19									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
50-54									
55-59									
60-64									
65-69									
70-74									
75-79									
80+									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number									

Note: Total includes X persons whose sex was not recorded.

This table gives the distribution of the population by age, according to sex and residence. The population age structure derives from the past history of the population. It is also a device to test the quality of the data collected in regard to age reporting. In a high fertility country, the age structure shows large percentages in the first age group (<5) for each sex. The percentages decline progressively as age increases. Usually, the number of males is higher than that of females in the first few 5-year age groups and the reverse pattern is observed at older ages. This table is based on the de facto population, i.e., persons who stayed in the household the night before the interview.

Population pyramid (Working table for Figure 2.1)			
Percent distribution of the de facto household population by five-year age groups, according to sex, [country, year]			
Age	Male	Female	Total
<5			
5-9			
10-14			
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			
50-54			
55-59			
60-64			
65-69			
70-74			
75-79			
80+			
Total			100.0
Number			



This is a working table for producing the population pyramid in Figure 2.1, not for presentation as a table in the printed report. The percent distribution of the population by age and sex is based on the overall total (both sexes combined).

The denominator for each age-sex category of the working table is the total de facto household population (usual residents and visitors who spent the night preceding the survey in the household). In this table males and females are two components of a single two-dimensional distribution (age and sex) of the population.

Table 2.2 Household composition			
Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18 years of age, according to residence, [country, year]			
Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male			
Female			
Total	100.0	100.0	100.0
Number of usual members			
1			
2			
3			
4			
5			
6			
7			
8			
9+			
Total	100.0	100.0	100.0
Mean size of households			
Percentage of households with orphans and foster children under 18 years of age			
Foster children ¹			
Double orphans			
Single orphans			
Foster and/or orphan children			
Number of households			

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

¹Foster children are those under age 18 years of age living in households with neither their mother nor their father present

The household composition usually affects the allocation of resources (financial, emotional, etc.) available to household members. In cases where women are heads of households, it is usually found that financial resources are limited. Similarly, the size of the household affects the well being of its members. Where the size of the household is large, crowding can lead to health problems.

Table 2.3 Children's living arrangements and orphanhood

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

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent			Missing information on father or mother	Total	Percentage not living with a biological parent	Percentage with one or both parents dead	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive					
Age													
0-4										100.0			
<2										100.0			
2-4										100.0			
5-9										100.0			
10-14										100.0			
15-17										100.0			
Sex													
Male										100.0			
Female										100.0			
Residence													
Urban										100.0			
Rural										100.0			
Region													
Region 1										100.0			
Region 2										100.0			
Region 3										100.0			
Region 4										100.0			
Wealth quintile													
Lowest										100.0			
Second										100.0			
Middle										100.0			
Fourth										100.0			
Highest										100.0			
Total <15										100.0			
Total <18										100.0			

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

This table gives information relevant to children's living arrangements and orphanhood for children under 18 years of age. In the text it is also important to discuss the percentage of children with only one parent dead, since this is sometimes used to assess the orphanhood situation.

The percentage with one or both parents dead (next-to-last column) corresponds to:

- 1) UNICEF-OVC *Raising Awareness to Create a Supportive Environment* Core Indicator 9 "Percentage of children who are orphans."
- 2) UNAIDS *Health and Social Impact* Indicator 4 "Prevalence of orphanhood."

When Chapter 16 OVC Care & Support is included in the survey report, Table 2.3 should be omitted from Chapter 2 since the information will be shown in Tables 16.1 and 16.2.

Table 2.4.1 Educational attainment of the female household population

Percent distribution of the de facto female household populations age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, [country, year]

Background characteristic	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary	Don't know/missing	Total	Number	Median years completed
Age										
6-9								100.0		
10-14								100.0		
15-19								100.0		
20-24								100.0		
25-29								100.0		
30-34								100.0		
35-39								100.0		
40-44								100.0		
45-49								100.0		
50-54								100.0		
55-59								100.0		
60-64								100.0		
65+								100.0		
Residence										
Urban										
Rural								100.0		
Region										
Region 1										
Region 2										
Region 3										
Region 4								100.0		
Wealth quintile										
Lowest								100.0		
Second										
Middle								100.0		
Fourth										
Highest										
Total								100.0		
¹ Completed X grade at the primary level										
² Completed Y grade at the secondary level										

Table 2.4.2 Educational attainment of the male household population

Percent distribution of the de facto male household populations age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, [country, year]

Background characteristic	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary	Don't know/missing	Total	Number	Median years completed
Age										
6-9								100.0		
10-14								100.0		
15-19								100.0		
20-24								100.0		
25-29								100.0		
30-34								100.0		
35-39								100.0		
40-44								100.0		
45-49								100.0		
50-54								100.0		
55-59								100.0		
60-64								100.0		
65+								100.0		
Residence										
Urban										
Rural								100.0		
Region										
Region 1								100.0		
Region 2										
Region 3										
Region 4								100.0		
Wealth quintile										
Lowest								100.0		
Second										
Middle								100.0		
Fourth										
Highest										
Total								100.0		
¹ Completed X grade at the primary level										
² Completed Y grade at the secondary level										

Educational attainment is an important characteristic of household members. Many phenomena such as reproductive behavior, use of contraception, health of children, and proper hygienic habits are affected by the education of household members. Tables 2.4a, 2.4b, and 2.5 are used to assess the education of household members. Table 2.4a and 2.4b are a classification of the educational attainment of household members by age group, residence, and region for each sex. X and Y in the footnote refer to the number of grades required to complete that level and each is country specific.

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, [country, year]

Background characteristic	Net attendance ratio ¹				Gross attendance ratio ²			
	Male	Female	Total	Gender Parity Index (GPI) ³	Male	Female	Total	Gender Parity Index (GPI) ³
PRIMARY SCHOOL								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								
SECONDARY SCHOOL								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								
<p>¹The NAR for primary school is the percentage of the primary-school age (A-B years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school age (C-D years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.</p> <p>²The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100.0.</p> <p>³The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.</p>								

Table 2.5 provides net and gross attendance ratios by school level, sex, residence, and region. The net attendance ratio (NAR) is an indicator of participation in schooling among those of official school age. The gross attendance ratio (GAR) is an indicator of participation in schooling among those of any age, expressed as a percentage of the official school age population. The difference between the ratios indicates the incidence of overage and underage attendance. Children are considered to be attending school currently if they attended at any time during the current school year.

The Gender Parity Index (GPI), or the ratio of the female to the male GAR at the primary and secondary levels, indicates the magnitude of the gender gap in attendance ratios. If there is no gender difference, the GPI will be equal to one, whereas the wider the disparity in favor of males, the closer the GPI will be to 0. If the gender gap favors females, the GPI will exceed one.

Official age ranges for primary and secondary school in the country should be obtained from the Ministry of Education. UNESCO (<http://unesco.org/en/stats/stats0.htm>) has information up to 1997 only.

Table 2.6 Primary school grade repetition and dropout rates (working table)								
Repetition and dropout rates for the de facto household population age 5-24 who attended primary school in the previous school year by school grade, according to background characteristics, [country, year]								
Background characteristic	School grade							
	1	2	3	4	5	6	7	8
REPETITION RATE ¹								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Total								
DROPOUT RATE ²								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Total								
¹ The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year ² The dropout rate is the percentage of students in a given grade in the previous school year who are not attending school in the current school year								

Repetition and dropout rates describe the flow of students through the school system. In countries with an automatic promotion policy, where students are nearly always promoted to the next grade at the end of the school year, repetition rates may approach zero. Repetition and dropout rates often vary across grades, indicating points in the school system where students are not regularly promoted to the next grade or they decide to drop out of school.

The table should include the primary school grades only, adjusted accordingly to the number of years of primary school. Also the term “grade” should be revised according to the country, replacing the word “grade” with “standard” or “class” or other relevant term.

This table will be run as a working table initially for comments from the education specialist at DHS, before a decision is made to publish the table in the final report.

Figure 2.2
Age-specific Attendance Rates
of the de-facto Population 5 to 24 Years

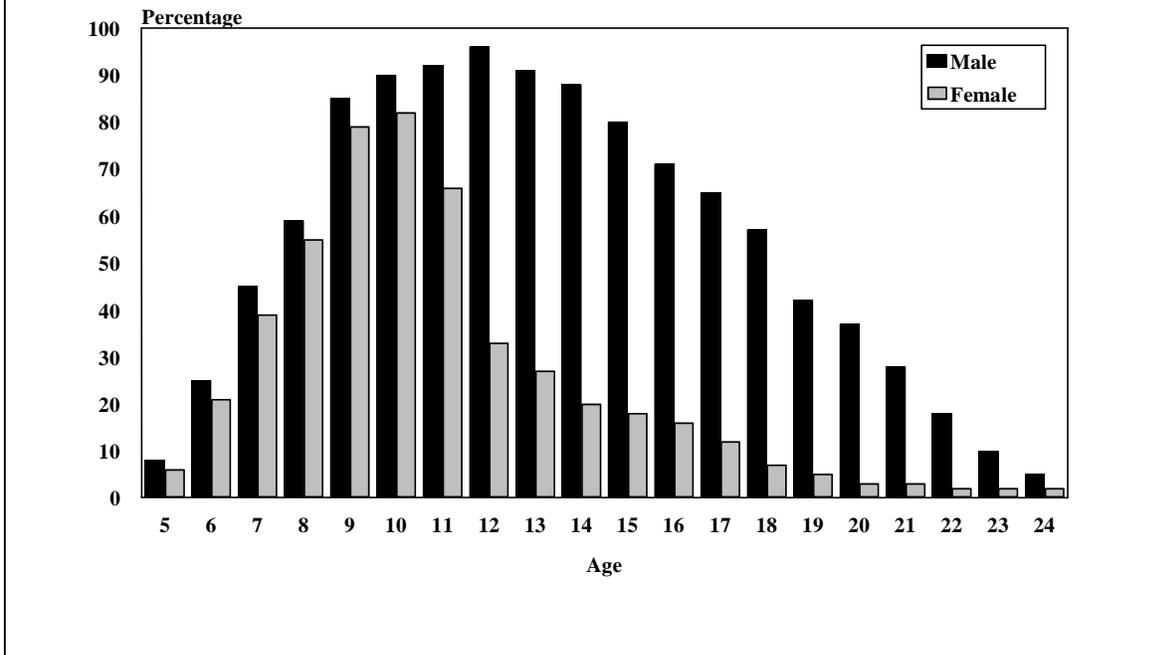


Figure 2.2 shows the age-specific attendance rates (ASAR) for the de-facto population regardless of the level of schooling, i.e., percentage of the population age 5-24 years attending school. The closer the ASAR is to 100 percent, the higher the proportion of the population in a given age attending school.

Table 2.7 Household drinking water

Percent distribution of households and de jure population by source, time to collect, and person who usually collects drinking water; and percentage of households and de jure population by treatment of drinking water, according to residence [country, year]

Characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source						
Piped water into dwelling/yard/plot						
Public tap/standpipe						
Tubewell/borehole						
Protected dug well						
Protected spring						
Rainwater						
Non-improved source						
Unprotected dug well						
Unprotected spring						
Tanker truck/cart with drum						
Surface water						
Bottled water, improved source for cooking/washing ¹						
Bottled water, non-improved source for cooking/washing ¹						
Other sources						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water						
Time to obtain drinking water (round trip)						
Water on premises						
Less than 30 minutes						
30 minutes or longer						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult male 15+						
Adult female 15+						
Male child under age 15						
Female child under age 15						
Water on premises						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking²						
Boiled						
Bleach/chlorine added						
Strained through cloth						
Ceramic, sand or other filter						
Solar disinfection						
Other						
No treatment						
Percentage using an appropriate treatment method ³						
Number						

¹ Because the quality of bottled water is not known, households using bottled water for drinking are classified as using an improved or non-improved source according to their water source for cooking and washing.

² Respondents may report multiple treatment methods so the sum of treatment may exceed 100 percent.

³ Appropriate water treatment methods include boiling, bleaching, straining, filtering and solar disinfecting.

The source of drinking water is an indicator of whether it is suitable for drinking. Sources that are considered likely to be of suitable quality are listed under “Improved source”, and sources that may not be of suitable quality are listed under “Non-improved source.” The categorization into improved and non-improved is proposed by WHO, UNICEF and JMP (*Guide for Water Supply, Sanitation and Hygiene Related Household Survey Questions*, dated October 2004, by WHO, UNICEF and Joint Monitoring Programme for Water Supply and Sanitation).

The table also provides information on the time to obtain drinking water, the age and sex of the person who usually collects the drinking water and the treatment given to water used for drinking. Since water may be treated in several ways by a household, water treatment is given as the percentages of households using the treatment method and the percentage of the de jure population living in those households, rather than a distribution.

Information for the de jure population in this and other tables was added at the request of UNICEF. The Joint Monitoring Programme for Water Supply and Sanitation tabulates statistics by population rather than by households.

Table 2.8 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, [country, year]

Type of toilet/latrine facility	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility						
Flush/pour flush to piped sewer system						
Flush/pour flush to septic tank						
Flush/pour flush to a pit latrine						
Ventilated improved pit (VIP) latrine						
Pit latrine with a slab						
Composting toilet						
Non-improved facility						
Any facility shared with other households						
Flush/pour flush not to sewer/septic tank/pit latrine						
Pit latrine without slab/open pit						
Bucket						
Hanging toilet/hanging latrine						
No facility/bush/field						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number						

The purpose of this table is to show the proportion of households and of the de jure population having access to hygienic sanitation facilities. Hygienic status is determined on the basis type of facility used and whether or not it is a shared facility.

A household's toilet/latrine facility is classified as hygienic if it is used only by household members (i.e., not shared) and the type of facility effectively separates human waste from human contact. The types of facilities that are most likely to accomplish this are flush or pour flush into a piped sewer system/septic tank/pit latrine, ventilated, improved pit (VIP) latrine, pit latrine with a slab and a composting toilet. A household's sanitation facility is classified as unhygienic if it is shared with other households or if it does not effectively separate human waste from human contact.

The response categories are those proposed by WHO, UNICEF and JMP (*Guide for Water Supply, Sanitation and Hygiene Related Household Survey Questions*, dated October 2004, by WHO, UNICEF and Joint Monitoring Programme for Water Supply and Sanitation).

Table 2.9 Housing characteristics						
Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking; and among those using solid fuels, percent distribution by type of fire/stove, according to residence, [country, year]						
Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes						
No						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth/sand						
Dung						
Wood planks						
Palm/Bamboo						
Parquet or polished wood						
Vinyl or asphalt strips						
Ceramic tiles						
Cement						
Carpet						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One						
Two						
Three or more						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking						
In the house						
In a separate building						
Outdoors						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel						
Electricity						
LPG/natural gas/biogas						
Kerosene						
Coal/lignite						
Charcoal						
Wood						
Straw/shrubs/grass						
Agricultural crop						
Animal dung						
Other fuel						
No food cooked in household						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking ¹						
Number of households/population						
Type of fire/stove among households using solid fuels¹						
Closed stove with chimney						
Open fire/stove with chimney						
Open fire/stove with hood						
Open fire/stove without chimney or hood						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population using solid fuel						
LPG = Liquid petroleum gas						
¹ Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung [list categories included in the country questionnaire]						

This table presents major housing characteristics of the study population. The new DHS questionnaire includes questions on place for cooking (Q115-Q116) and type of fire/stove (Q113-Q114). If additional household characteristics were included in a country-specific questionnaire, they can be added to the table.

Table 2.10 Household possessions

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land and livestock/farm animals by residence, [country, year]

Possession	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Household effects						
Radio						
Television						
Mobile telephone						
Non-mobile telephone						
Refrigerator						
Means of transport						
Bicycle						
Animal drawn cart						
Motorcycle/scooter						
Car/truck						
Boat with a motor						
Ownership of agricultural land						
Ownership of farm animals¹						
Number						

¹Cattle, cows, bulls, horses, donkeys, goats, sheep or chickens

The availability of durable consumer goods is a useful indicator of household socioeconomic level. Moreover, particular goods have specific benefits. Having access to a radio or a television exposes household members to innovative ideas; a refrigerator prolongs the wholesomeness of foods; and a means of transport allows greater access to many services away from the local area. This table shows the availability of selected household possessions by residence.

The new DHS household questionnaire includes questions on ownership of agriculture land (Q123) and ownership of livestock/farm animals (Q125)

If additional household possessions were included in a country-specific questionnaire, they can be included in the table.

Table 2.11 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles and the Gini Coefficient, according to residence and region, [country, year]

Residence/region	Wealth quintile					Total	Number of population	Gini Coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban						100.0		
Rural						100.0		
Region								
Region 1						100.0		
Region 2						100.0		
Region 3						100.0		
Region 4						100.0		
Total	20.0	20.0	20.0	20.0	20.0	100.0		

In addition to standard background characteristics, most of the results in the country reports are shown by wealth quintiles, an indicator of the economic status of households. Although surveys under the DHS program do not collect data on consumption or income, they do collect detailed information on dwelling and household characteristics and access to a variety of consumer goods and services, and assets which are used as a measure of socio-economic status. The wealth index is a recently developed measure that has been tested in a number of countries in relation to inequities in household income, use of health services, and health outcomes. The resulting wealth index is an indicator of the level of wealth that is consistent with expenditure and income measures. The wealth index was constructed using household asset data and principal components analysis.

Each asset is assigned a weight (factor score) generated through principal component analysis, and the resulting asset scores were standardized in relation to a standard normal distribution with a mean of zero and standard deviation of one. Each household is then assigned a score for each asset, and the scores are summed for each household; individuals were ranked according to the total score of the household in which they reside. The total population in the households included in the sample is then divided into quintiles from one (lowest) to five (highest).

To create wealth quintiles the de jure population is classified into five wealth categories, each with the same number of persons, according to an index representing the wealth of the household in which a person resides. At the national level, approximately 20 percent of the population is in each wealth quintile.

Table 2.11 shows the distribution across the five wealth quintiles of the population of urban and rural areas and in each region. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed by geographic areas. The distribution of households by quintiles is not exactly 20 percent due to the fact that members of the households, not households, were divided into quintiles.

Also included in Table 2.11 is the Gini Coefficient, which indicates the level of concentration of wealth, 0 being an equal distribution and 1 a totally unequal distribution. The Gini coefficient is calculated as a ratio of the areas on the Lorenz curve diagram. If the area between the line of perfect equality and Lorenz curve is A, and the area underneath the Lorenz curve is B, then the Gini coefficient is $A/(A+B)$. This ratio is expressed as a percentage or as the numerical equivalent of that percentage, which is always a number between 0 and 1.

The Gini coefficient is often calculated with the more practical Brown Formula shown below:

$$G = \left| 1 - \sum_{k=1}^n (X_k - X_{k-1})(Y_k + Y_{k-1}) \right|$$

G: Gini coefficient

X_k : cumulated proportion of the population variable, for $k = 0, \dots, n$, with $X_0 = 0$, $X_n = 1$

Y_k : cumulated proportion of the income variable, for $k = 0, \dots, n$, with $Y_0 = 0$, $Y_n = 1$

The small sample variance properties of G are not known, and large sample approximations to the variance of G are poor. In order for G to be an unbiased estimate of the true population value, it should be multiplied by $n/(n-1)$.

Table 2.12 Birth registration of children under age five

Percentage of de jure children under five years of age whose births are registered with the civil authorities, according to background characteristics, [country, year]

Background characteristic	Percentage of children whose births are registered:			Number of children
	Had a birth certificate	Did not have a birth certificate	Total registered	
Age				
<2				
2-4				
Sex				
Male				
Female				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total				

The registration of births is the inscription of the facts of the birth into an official log kept at the registrars office. A birth certificate is issued at the time of registration or later as proof of the registration of the birth. Table 2.12 gives the percentage of children under five years of age whose births were officially registered and the percentage who had a birth certificate at the time of the survey. Not all children who are registered may have a birth certificate since some certificates may have been lost or were never issued. However, all children with a certificate have been registered.

Data column 3 (Total registered) corresponds to UNICEF-OVC Core Indicator 7 “Birth registration.”

CHAPTER 3

CHARACTERISTICS OF SURVEY RESPONDENTS

The purpose of the chapter is to provide a description of the situation of respondents of reproductive age in the country. This information is useful for understanding the context of the reproductive and health status of women and men. Percent distributions of various demographic and socioeconomic characteristics are shown for the full sample. The main background characteristics that will be used in subsequent chapters on reproduction and health are age at the time of the survey, marital status, broad education levels, urban/rural residence, region and, the wealth quintile to which respondents belong. In addition, information is provided on employment and work status.

This chapter should also provide insights on the meaning of major characteristics of survey respondents in the context of the country, and non-DHS explanatory information should be brought in to complement and expand the DHS data.

Besides a better understanding of many social and demographic phenomena discussed in the following chapters, this general description of the population is useful for assessing the economic and social development of the country and its regions.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, [country, year]

Background characteristic	Women			Men		
	Weighted percentage	Weighted number	Unweighted number	Weighted percentage	Weighted number	Unweighted number
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Religion						

Ethnic group						

Marital status						
Never married						
Married						
Living together						
Divorced/separated						
Widowed						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49	100.0			100.0		
50-54[59]	na	na	na	na		
Total 15-54[59]	na	na	na	na		
Note: Education categories refer to the highest level of education attended, whether or not that level was completed. na = Not applicable						

Table 3.1 shows a description of the basic characteristics of the women and men interviewed in the survey and provides the background for interpreting findings presented later in the report. The variables included in Table 3.1 are illustrative. Other variables of interest for the population surveyed may be added to the table.

In this table marital status is separated into five subcategories. In most tables the categories “married” and “living together” are combined and referred to collectively as “currently married” and in all other tables in this report the categories “divorced/separated” and “widowed” are combined into a single category.

For surveys involving a weighted sample, both the weighted and unweighted number of cases for each category should be included in Table 3.1. For such surveys only the weighted number of cases will be shown in all subsequent tables. However, all tabulations should be prepared on the unweighted as well as the weighted data files in order to determine the total number of cases in the relevant population subgroups since no statistics should be presented for subgroups including fewer than 25 unweighted cases.

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, [country, year]

Background characteristic	Highest level of schooling							Total	Median years completed	Number of women
	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary	Missing			
Age										
15-24								100.0		
15-19								100.0		
20-24								100.0		
25-29								100.0		
30-34								100.0		
35-39								100.0		
40-44								100.0		
45-49								100.0		
Residence										
Urban								100.0		
Rural								100.0		
Region										
Region 1								100.0		
Region 2								100.0		
Region 3								100.0		
Region 4								100.0		
Wealth quintile										
Lowest								100.0		
Second								100.0		
Middle								100.0		
Fourth								100.0		
Highest								100.0		
Total								100.0		

¹Completed X grade at the primary level
²Completed Y grade at the secondary level

This chapter provides an opportunity to discuss the relationship among the background variables used in later tabulations.

Of particular importance are possible differences in the educational attainment of women from different age groups, wealth quintiles urban/rural residence and regions. Some understanding of how these factors relate to each other will facilitate later interpretation of differentials. Table 3.2.1 shows how women classified by age, wealth quintile, residence, and region are distributed according to educational attainment. X and Y in the footnote refer to the number of grades required to complete that level and each is country specific.

In an all woman sample (as opposed to a sample of ever married women), data in this table should be similar, but not necessarily identical, to data in Table 2.4 for the same age groups. Differences may occur because of non-response in the women's questionnaire and different responses on education and age in the household and women's questionnaires.

Table 3.2.2 shows the corresponding results for men.

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, [country, year]

Background characteristic	Highest level of schooling							Total	Median years completed	Number of men
	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary	Missing			
Age										
15-24								100.0		
15-19								100.0		
20-24								100.0		
25-29								100.0		
30-34								100.0		
35-39								100.0		
40-44								100.0		
45-49								100.0		
Residence										
Urban								100.0		
Rural								100.0		
Region										
Region 1								100.0		
Region 2								100.0		
Region 3								100.0		
Region 4								100.0		
Wealth quintile										
Lowest								100.0		
Second								100.0		
Middle								100.0		
Fourth								100.0		
Highest								100.0		
Total 15-49								100.0		
50-54[59]								100.0		
Total 15-54[59]								100.0		

¹Completed X grade at the primary level

²Completed Y grade at the secondary level

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, [country, year]

Background characteristic	Secondary school or higher	No schooling or primary school					Missing	Total	Percent-age literate ¹	Number of women
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/visually impaired				
Age										
15-19							100.0			
20-24							100.0			
25-29							100.0			
30-34							100.0			
35-39							100.0			
40-44							100.0			
45-49							100.0			
Residence										
Urban							100.0			
Rural							100.0			
Region										
Region 1							100.0			
Region 2							100.0			
Region 3							100.0			
Region 4							100.0			
Wealth quintile										
Lowest							100.0			
Second							100.0			
Middle							100.0			
Fourth							100.0			
Highest							100.0			
Total							100.0			

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

In Table 3.3.1, the level of literacy is based on the women’s ability to read all, part, or none of a sentence in the language in which she is likely to be able to read if she is literate.

The questions assessing literacy are asked only of respondents who have not attended school or have attended only primary school. It is assumed that those who attended at least secondary school are literate.

In DHS surveys, three variables can provide information about literacy. Respondents are 1) asked to read a simple sentence about everyday life; 2) asked about their participation in literacy-promoting programs; and 3) asked their highest grade or year of schooling completed. Although literacy is a complex construct, triangulating among these three measures allows some understanding of the likelihood of a woman being literate. Literacy is widely acknowledged as benefiting both the individual and society and, particularly among women, is associated with a number of positive outcomes, including intergenerational health and nutrition benefits.

The last column on percent literate excludes from the denominator respondents for whom no card with the required language was available, and respondents who are blind/visually impaired, since their literacy cannot be gauged.

Table 3.3.2 shows the corresponding results for men.

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, [country, year]

Background characteristic	Secondary school or higher	No schooling or primary school					Missing	Total	Percent-age literate ¹	Number of men
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/visually impaired				
Age										
15-19							100.0			
20-24							100.0			
25-29							100.0			
30-34							100.0			
35-39							100.0			
40-44							100.0			
45-49							100.0			
Residence										
Urban							100.0			
Rural							100.0			
Region										
Region 1							100.0			
Region 2							100.0			
Region 3							100.0			
Region 4							100.0			
Wealth quintile										
Lowest							100.0			
Second							100.0			
Middle							100.0			
Fourth							100.0			
Highest							100.0			
Total 15-49							100.0			
50-54[59]							100.0			
Total 15-54[59]							100.0			

¹Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis by background characteristics, [country, year]

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media at least once a week	No media at least once a week	Number of women
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

This table shows the percentage of women exposed to mass media by background characteristics. It is important to know which women are likely to be reached by the media for disseminating family planning, health and other information.

The denominator for the column ‘Reads a newspaper at least once a week’ includes women who cannot read at all and women who are blind/visually impaired.

The results for men are presented in Table 3.4.2.

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis by background characteristics, [country, year]

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media at least once a week	No media at least once a week	Number of men
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]						
Total 15-54[59]						

Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, [country, year]

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing	Total	Number of women
	Currently employed ¹	Not currently employed				
Age						
15-19					100.0	
20-24					100.0	
25-29					100.0	
30-34					100.0	
35-39					100.0	
40-44					100.0	
45-49					100.0	
Marital status						
Never married					100.0	
Married/living together					100.0	
Divorced/separated/widowed					100.0	
Number of living children						
0					100.0	
1-2					100.0	
3-4					100.0	
5+					100.0	
Residence						
Urban					100.0	
Rural					100.0	
Region						
Region 1					100.0	
Region 2					100.0	
Region 3					100.0	
Region 4					100.0	
Education						
No education					100.0	
Primary					100.0	
Secondary					100.0	
More than secondary					100.0	
Wealth quintile						
Lowest					100.0	
Second					100.0	
Middle					100.0	
Fourth					100.0	
Highest					100.0	
Total					100.0	

¹ “Currently employed” is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

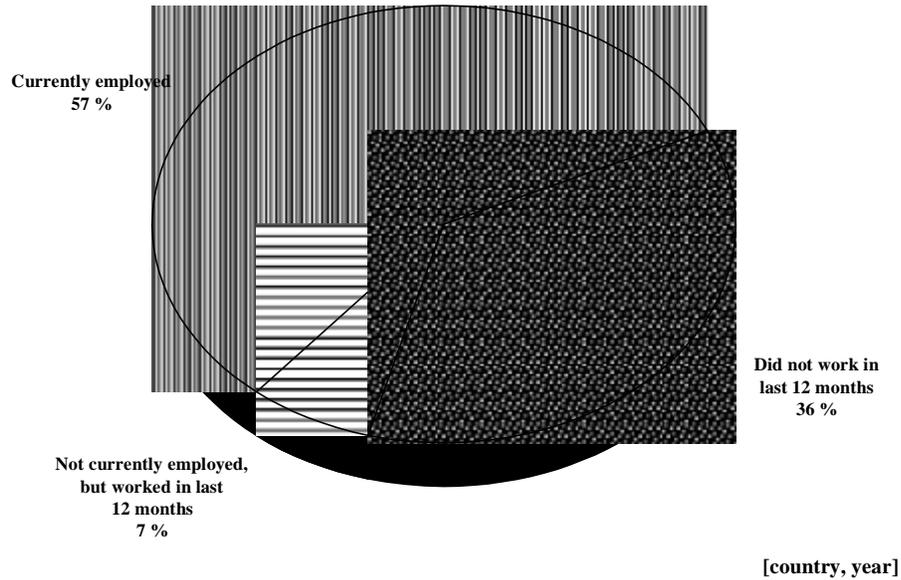
The corresponding question in the new core questionnaire has changed. Currently employed is now defined as having worked in the last seven days.

Like education, employment can be a source of empowerment for women, especially if it puts them in control of income. The measurement of women’s employment, however, is difficult. The difficulty arises largely because some of the work that women do, especially work on family farms, family businesses or in the informal sector is often not perceived by women themselves as employment, and hence not reported as such. To avoid underestimating women’s employment, the DHS ask women several questions to probe for their employment status and to ensure complete coverage of employment in both the formal or informal sectors. Respondents are asked a number of questions to elicit their current employment status and continuity of employment in the 12 months prior to the survey. Employed women are those who say that they are currently working (i.e., worked in the past 7 days) and those who worked at any time during the 12 months prior to the survey. Additional information is also obtained on the type of work women are doing, whether they worked continuously throughout the year, whom they worked for, and the form in which they received their earnings, in cash or in kind.

Results on employment status of men are presented in Table 3.5.2.

Figure 3.1

Women's Employment Status in the Past 12 Months



As Figure 3.1 reveals, not all women receive earnings for the work they do, and among women who do receive earnings not all receive earnings in cash.

Tables 3.8 through 3.13 of the previous *DHS+ Guidelines*, which focus on women status, have been relocated to Chapter 15 Women's Status and Demographic & Health Outcomes.

Table 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, [country, year]

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing	Total	Number of men
	Currently employed ¹	Not currently employed				
Age						
15-19					100.0	
20-24					100.0	
25-29					100.0	
30-34					100.0	
35-39					100.0	
40-44					100.0	
45-49					100.0	
Marital status						
Never married					100.0	
Married/living together					100.0	
Divorced/separated/widowed					100.0	
Number of living children						
0					100.0	
1-2					100.0	
3-4					100.0	
5+					100.0	
Residence						
Urban					100.0	
Rural					100.0	
Region						
Region 1					100.0	
Region 2					100.0	
Region 3					100.0	
Region 4					100.0	
Education						
No education					100.0	
Primary					100.0	
Secondary					100.0	
More than secondary					100.0	
Wealth quintile						
Lowest					100.0	
Second					100.0	
Middle					100.0	
Fourth					100.0	
Highest					100.0	
Total 15-49					100.0	
50-54[59]					100.0	
Total 15-54[59]					100.0	

¹ “Currently employed” is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, [country, year]

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of women
Age										
15-19									100.0	
20-24									100.0	
25-29									100.0	
30-34									100.0	
35-39									100.0	
40-44									100.0	
45-49									100.0	
Marital status										
Never married									100.0	
Married/living together									100.0	
Divorced/separated/ widowed									100.0	
Number of living children										
0									100.0	
1-2									100.0	
3-4									100.0	
5+									100.0	
Residence										
Urban									100.0	
Rural									100.0	
Region										
Region 1									100.0	
Region 2									100.0	
Region 3									100.0	
Region 4									100.0	
Education										
No education									100.0	
Primary									100.0	
Secondary									100.0	
More than secondary									100.0	
Wealth quintile										
Lowest									100.0	
Second									100.0	
Middle									100.0	
Fourth									100.0	
Highest									100.0	
Total									100.0	

Table 3.6.1 shows the distribution of currently employed women by occupation, according to background characteristics. The corresponding distribution for men is presented in Table 3.6.2.

Table 3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, [country, year]

Background Characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of men
Age										
15-19									100.0	
20-24									100.0	
25-29									100.0	
30-34									100.0	
35-39									100.0	
40-44									100.0	
45-49									100.0	
Marital status										
Never married									100.0	
Married/living together									100.0	
Divorced/separated/widowed									100.0	
Number of living children										
0									100.0	
1-2									100.0	
3-4									100.0	
5+									100.0	
Residence										
Urban									100.0	
Rural									100.0	
Region										
Region 1									100.0	
Region 2									100.0	
Region 3									100.0	
Region 4									100.0	
Education										
No education									100.0	
Primary									100.0	
Secondary									100.0	
More than secondary									100.0	
Wealth quintile										
Lowest									100.0	
Second									100.0	
Middle									100.0	
Fourth									100.0	
Highest									100.0	
Total 15-49									100.0	
50-54[59]									100.0	
Total 15-54[59]									100.0	

Table 3.7 Type of employment: Women			
Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer and continuity of employment, according to type of employment (agricultural or nonagricultural), [country, year]			
Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only			
Cash and in-kind			
In-kind only			
Not paid			
Missing			
Total	100.0	100.0	100.0
Type of employer			
Employed by family member			
Employed by nonfamily member			
Self-employed			
Missing			
Total	100.0	100.0	100.0
Continuity of employment			
All year			
Seasonal			
Occasional			
Missing			
Total	100.0	100.0	100.0
Number of women employed during the last 12 months			
Note: Total includes women with missing information on type of employment who are not shown separately.			

Table 3.7 shows the percent distribution of women who have worked at any time during the 12 months preceding the survey by the type of earnings women receive (cash, in-kind, or both), type of employer, and the continuity of employment and how this varies by type of employment (agricultural or non-agricultural).

Table 3.8.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, [country, year]

Background characteristic	Social Security	Other employer-based insurance	Mutual Health Organization/Community-based insurance	Privately-purchased commercial insurance	Other	None	Number of women
Age							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							

Tables 3.8.1 and 3.8.2 are new, based on Q1016-1017 for women and Q814-815 for men.

Since respondents may report coverage by more than one type of insurance, the percentages by specific types of coverage may sum to more than 100 percent.

Table 3.8.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, [country, year]

Background characteristic	Social Security	Other employer-based insurance	Mutual Health Organization/Community-based insurance	Privately-purchased commercial insurance	Other	None	Number of men
Age							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total 15-49							
50-54[59]							
Total 15-54[59]							

Table 3.9.1 Knowledge and attitude concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, [country, year]

Background characteristic	Among all women:		Among women who have heard of TB:			
	Percentage who have heard of TB	Number of women	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of women
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

Tables 3.9.1 and 3.9.2 are new, based on Q1009-1012 for women and Q810-813 for men.

Table 3.9.2 Knowledge and attitude concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, [country, year]

Background characteristic	Among all men:		Among men who have heard of TB:			
	Percentage who have heard of TB	Number of men	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of men
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]						
Total 15-54[59]						

Table 3.10.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, [country, year]

Background characteristic	Uses tobacco			Does not use tobacco	Number of women	Number of cigarettes in the last 24 hours					Don't know/missing	Total	Number of cigarette smokers	
	Ciga- rettes	Pipe	Other tobacco			0	1-2	3-5	6-9	10+				
Age														
15-19													100.0	
20-24													100.0	
25-29													100.0	
30-34													100.0	
35-39													100.0	
40-44													100.0	
45-49													100.0	
Maternity status														
Pregnant													100.0	
Breastfeeding (not pregnant)													100.0	
Neither													100.0	
Residence														
Urban													100.0	
Rural													100.0	
Region														
Region 1													100.0	
Region 2													100.0	
Region 3													100.0	
Region 4													100.0	
Education														
No education													100.0	
Primary													100.0	
Secondary													100.0	
More than secondary													100.0	
Wealth quintile														
Lowest													100.0	
Second													100.0	
Middle													100.0	
Fourth													100.0	
Highest													100.0	
Total													100.0	

Tobacco use during pregnancy increases the risk of having a small or low birth weight baby. Smoking or other use of tobacco also affects women's health and may adversely affect their children's health, especially in terms of vulnerability to respiratory illness. The above table ascertains the prevalence of use of various tobacco products among women and, for cigarette smokers, the number of cigarettes smoked in the last 24 hours.

Since use of multiple tobacco products may be reported by a respondent, the percentages using the different tobacco products may sum to more than 100 percent.

Tables 3.10.1 and 3.10.2 are new, based on Q1005-1008 for women and Q806-809 for men.

Table 3.10.2 Use of tobacco: Men

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

Background characteristic	Uses tobacco				Number of men	Number of cigarettes in the last 24 hours					Total	Number of cigarette smokers	
	Cigarettes	Pipe	Other tobacco	Does not use tobacco		0	1-2	3-5	6-9	10+			Don't know/missing
Age													
15-19													100.0
20-24													100.0
25-29													100.0
30-34													100.0
35-39													100.0
40-44													100.0
45-49													100.0
Residence													
Urban													100.0
Rural													100.0
Region													
Region 1													100.0
Region 2													100.0
Region 3													100.0
Region 4													100.0
Education													
No education													100.0
Primary													100.0
Secondary													100.0
More than secondary													100.0
Wealth quintile													
Lowest													100.0
Second													100.0
Middle													100.0
Fourth													100.0
Highest													100.0
Total 15-49													100.0
50-54[59]													100.0
Total 15-54[59]													100.0

CHAPTER 4

FERTILITY

In DHS surveys, information is collected on current, past, and cumulative fertility. Drawing on the birth history information collected in the survey, the chapter begins with a description of current fertility. This is followed by a description of differentials in fertility by background characteristics. Then, attention is focused on trends in fertility, which permits an examination of changes in age-specific fertility rates by time periods going back 20 years from the time of the survey.

The chapter also presents information on the cumulative fertility of female respondents. The cumulative fertility tables are derived from a sequence of questions about the number of sons and daughters that a woman has had who are living in the household, who are living elsewhere and who have died. The information on cumulative fertility is shown in terms of the mean number of children ever born and the mean number of surviving children to women classified by five-year age groups.

The chapter also presents information on birth intervals for births in the five years preceding the survey, age at first birth for five-year age groups of women and information on teenage pregnancy and motherhood by single year of age for youngest survey respondents, i.e., women age 15-19. These data are important because they indicate the beginning of a woman's reproductive life.

<u>Table 4.1 Current fertility</u>			
Age-specific and total fertility rate, the general fertility rate and the crude birth rate for the three years preceding the survey, by residence, [country, year]			
Age group	Residence		Total
	Urban	Rural	
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			
TFR (15-49)			
GFR			
CBR			

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

The current level of fertility is the most important topic in this chapter because of its direct relevance to population policies and programs. This table is designed to provide estimates of current levels of fertility for the country as a whole and for urban and rural areas. A three-year rate is chosen as a compromise among three criteria: to get the most current information, to reduce sampling error, and to avoid problems noted in previous surveys of the displacement of births from 5 to 6 years before the survey.

To compute the numerator for the age-specific rates, live births are classified by (1) segment of time preceding the survey, (i.e., 1-36 months) using the date of interview and date of birth and (2) by age of the mother at the time of birth (in conventional five-year groupings) using the date of birth of the mother. The denominators for the age-specific rates are the numbers of woman-years lived in the specified five-year age intervals during the time segment.

The total fertility rate (TFR) represents the average number of children a woman would have at the end of her reproductive period if she were to follow the currently prevalent age-specific fertility rates. The TFR is calculated as the sum of the age-specific fertility rates multiplied by five (since each age group covers five years of age).

The numerator for the general fertility rate is the total number of births in the time period, including births to women under 15 and 45 and over. The denominator is the number of woman-years lived between the ages of 15 and 44 during the period. The crude birth rate is calculated by summing the product of the age-specific rates multiplied by the proportion of women in the specific age group out of the total de facto population, male and female.

The TFR in this and other tables should be shown with one decimal place (e.g. 6.2), the GFR with no decimal places (e.g., 244) and the CBR with no decimal places (e.g., 43). The age-specific fertility rates (ASFR) in this and other tables are shown with no decimal places (e.g., 256).

Table 4.2 Fertility by background characteristics			
Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, [country, year]			
Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban			
Rural			
Region			
Region 1			
Region 2			
Region 3			
Region 4			
Education			
No education			
Primary			
Secondary			
More than secondary			
Wealth quintile			
Lowest			
Second			
Middle			
Fourth			
Highest			
Total			
Note: Total fertility rates are for the period 1-36 months prior to interview.			

This table summarizes current total fertility for major groups in the population. It also provides a basis for inferring trends in fertility by comparing the current synthetic measures with the average number of children ever born to women age 40-49 years. Although comparison of completed fertility among women age 40-49 with the total fertility rate can provide an indication of fertility change, such an approach is vulnerable to understatement of parity by older women. The findings on nuptiality and contraceptive use are also of crucial importance in reaching a balanced judgment about fertility trends. Unless there is evidence of increased age at marriage and/or appreciable use of contraception, it is unlikely that fertility has declined. In countries where earlier data on fertility are available, a table should be added showing trends in total fertility rates (and age-specific rates, if possible). Also shown, for comparative purposes, is the percentage of women who have reported themselves as currently pregnant. This percentage is known to be underreported since women who are early in their pregnancy may not yet know they are pregnant and because some pregnant women may not want to declare they are pregnant. However, it allows for a rough validation of the level of fertility.

The mean number of children ever born should be shown with one decimal place in this table.

Table 4.3.1 Trends in age-specific fertility rates				
Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, [country, year]				
Mother's age at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	X	X	X	X
20-24	X	X	X	X
25-29	X	X	X	X
30-34	X	X	X	[X]
35-39	X	X	[X]	
40-44	X	[X]		
45-49	[X]			

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

With a complete birth history, more direct evidence on trends is available and the analyst may be able to reach firmer conclusions. Note that the age-specific rates are progressively truncated with increasing time before the survey. The bottom diagonal of estimates (enclosed in brackets) is also truncated.

Use of birth histories for analysis of trends places a burden on the quality of the data, which should be interpreted with caution. The first priority is to undertake a preliminary evaluation of reliability. The internal consistency and plausibility of the array should be examined. A peaking of fertility in the period 5-9 and/or 10-14 years prior to survey may indicate defects in the data. While it may be possible that fertility has risen and then fallen, a more likely explanation is that birth dates have been falsely shifted from the more distant past (and possibly from the most recent period) into these intermediate periods either due to misreporting of birth dates or by misreporting of the respondent's age at the time of the survey. These problems of misdating may be exacerbated by omission of distant births, which also gives a misleading impression of a rise in fertility. Conversely, monotonic trends are more plausible.

Age-specific trends should also be interpreted in the light of other evidence. For instance, a rise in age at marriage will be associated with a decline in fertility at ages 15-19 and perhaps 20-24. Because fertility early in marriage usually remains resistant to decline and may even increase when fertility later in marriage is declining, an increase in age at marriage may bring about a rise in fertility in certain age groups (usually 20-24 or 25-29) or at least sustain an unchanging level. Contraceptive use should lead to declines in fertility at older age groups. Provided these data pass preliminary and simple tests of consistency and plausibility, the analyst can proceed to a tentative substantive description of results. Cumulative fertility rates should be calculated only by accumulating across ages unaffected by truncation. For instance, changes over the last 20 years can be summarized by accumulating rates up to age 30.

It is also possible that the trend of the rates between the most recent time period (0-4 years) and the next most recent time period (5-9 years) is distorted as a result of interviewers misrecording the dates of some births, which actually occurred in the most recent time period, as occurring in the period 5-9 years before the survey. This occurs in many DHS surveys to varying degrees when interviewers try to lighten their workload and avoid asking the questions on child health (questions only asked for children born after a cutoff of January of the fifth full calendar year prior to the survey.) The net affect of such birth transference is to bias negatively fertility estimates for the period 0-4 years preceding the survey, to bias positively estimates for the period 5-9 years preceding the survey and, resultantly, to accentuate any observed fertility decline over the recent ten year period. When this type of birth date misreporting occurs it is usually easily detected by reference to Table C.4 of the Appendix C (Data Quality).

In many countries where DSH surveys are currently being conducted there have been previous DHS surveys which offer an opportunity for the assessment of fertility trend by tracking the pattern of the most recent fertility estimates from each survey in the series of available DHS (or other reliable) surveys. Particularly when there is evidence of misreporting of birth dates

between recent time periods, this approach may be considered preferable for assessment of fertility trends. Table 4.4 and Figure 4.1 illustrate such an analysis.

Table 4.3.2 Trends in age-specific and total fertility rates

Age-specific and total fertility rates (TFR) for the three-year period preceding several surveys

Mother's age at birth	DHS 1 Period 1	DHS 2 Period 2	Current DHS Period 3
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			
TFR			

Note: Age-specific fertility rates are per 1,000 women.

**Figure 4.1
Trends in Fertility**

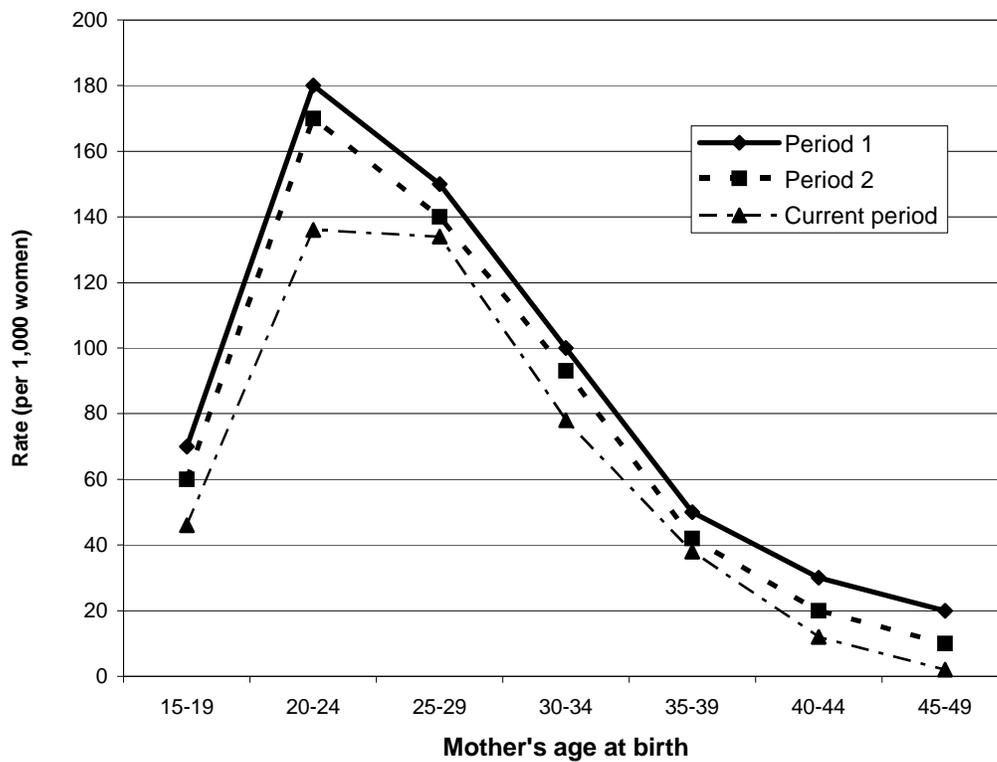


Table 4.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born and mean number of living children, according to age group, [country, year]

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of children living	
	0	1	2	3	4	5	6	7	8	9	10+					
ALL WOMEN																
15-19												100.0				
20-24												100.0				
25-29												100.0				
30-34												100.0				
35-39												100.0				
40-44												100.0				
45-49												100.0				
Total												100.0				
CURRENTLY MARRIED WOMEN																
15-19												100.0				
20-24												100.0				
25-29												100.0				
30-34												100.0				
35-39												100.0				
40-44												100.0				
45-49												100.0				
Total												100.0				

The number of children ever born and living are presented here both for all women and for currently married women. In the DHS questionnaire, the total number of children ever born has been ascertained by a sequence of questions designed to maximize recall. Experience suggests that, even among high fertility and illiterate populations, omissions of births can be kept to a low level, except perhaps for the oldest women in the sample.

Results at younger ages for currently married women will usually diverge sharply from those for the whole sample because of the large number of unmarried women with negligible fertility in the latter group. In most developing countries, the majority of women are married by age 25. Thus, differences above these ages between parities for the whole sample and for currently married women will tend to reflect the impact of marital dissolution. The parity distributions for older, currently married women also provide a measure of primary infertility. Voluntary childlessness is rare in developing countries, and married women with no live births are predominantly those involuntarily so. The typical level of childlessness for married women at the end of the childbearing years is 3-5 percent.

As well as describing average family size, these results can also be used to calculate the proportions of children who have died, which can be used to indirectly estimate mortality levels and trends using special techniques. Chapter 3 of United Nations Manual X, *Indirect Techniques for Demographic Estimation*, presents a clear and detailed account of the techniques. Because direct estimates of infant and childhood mortality can be calculated using the data from the birth history of the survey (Chapter 8), the indirect estimates are not presented.

The mean number of children ever born and living should be shown with two decimal places in this table.

Table 4.5 Birth intervals

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

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-54	55-59			
Age									
15-19								100.0	
20-29								100.0	
30-39								100.0	
40-49								100.0	
Sex of preceding birth									
Male								100.0	
Female								100.0	
Survival of preceding birth									
Living								100.0	
Dead								100.0	
Birth order									
2-3								100.0	
4-6								100.0	
7+								100.0	
Residence									
Urban								100.0	
Rural								100.0	
Region									
Region 1								100.0	
Region 2								100.0	
Region 3								100.0	
Region 4								100.0	
Education									
No education								100.0	
Primary								100.0	
Secondary								100.0	
More than secondary								100.0	
Wealth quintile									
Lowest								100.0	
Second								100.0	
Middle								100.0	
Fourth								100.0	
Highest								100.0	
Total								100.0	

Note: First-order births are excluded from this table. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Table 4.6 Age at first birth

Percentage of women age 15-49 who gave birth by specific exact ages, percentage who have never given birth, and median age at first birth, according to current age, [country, year]

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19		na	na	na	na			a
20-24				na	na			
25-29								
30-34								
35-39								
40-44								
45-49								
20-49				na	na			
25-49								

na = Not applicable due to censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

The onset of childbearing is an important demographic indicator. In many countries, postponement of first births, reflecting a rise in age at marriage, has made a large contribution to the overall fertility decline. The proportion of women who become mothers before the age of 20 also is a measure of the magnitude of adolescent fertility, which is a major health and social problem in many countries.

Medians generally should be presented only for women 25 years or older in order to avoid the censoring problem for younger cohorts who have not yet had their first birth. For countries where more than 50 percent of the women have had a birth by age 20, however, the medians should be presented for women age 20 and over.

Table 4.7 Median age at first birth

Median age at first birth among women age 20-49 (25-49) years, by current age, according to background characteristics, [country, year]

Background characteristic	Current age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								

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

This table presents the median age at first birth for different cohorts and compares age at entry into parenthood for different subgroups of the population. Columns for ages 20-24 and 20-49 may be omitted in countries where several of the cells have less than 50 percent of the women who had a birth for the first time by age 20. Medians in individual cells should be omitted if less than 50 percent of the women in the cell had a birth before the beginning of the age group.

Trends in age at first birth may be less pronounced than trends in age at first marriage. Later marriages are often associated with a shorter interval at first birth because of an increase in premarital pregnancies and/or the reduced impact of adolescent subfecundity.

In interpreting these results and other results in this chapter, possible distortions caused by data defects should be borne in mind. Findings for older women should be regarded critically. For instance, unexpectedly high ages at first birth for older cohorts may well indicate omission or misdating of early births, rather than a genuine trend.

Table 4.8 Teenage pregnancy and motherhood

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

Background characteristic	Percentage who:		Percentage who have begun childbearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15				
16				
17				
18				
19				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total				

The percentage of women who have begun childbearing is the sum of the percentage who have had a live birth and the percentage who are pregnant with the first child.

CHAPTER 5

FAMILY PLANNING

This chapter begins with an assessment of respondent knowledge of different contraceptive methods before moving on to a consideration of current and past practice of family planning methods. For users of rhythm and all women, knowledge of the ovulatory cycle is examined; while for those relying on sterilization, the timing of method adoption is reviewed. Special attention is focused on source of contraception, informed choice, nonuse, reasons for discontinuation, and intention to use in the future. The chapter concludes with tabulations on exposure to media coverage on the topic of family planning and on contact with family planning providers.

These topics are of practical use to policy and program staff in several ways. The early sections concern the main pre-conditions to adoption of contraception such as knowledge of methods and basic reproductive biology. Levels of use of contraceptives provide the most obvious and widely accepted criterion of success of the program. When results from earlier surveys are available, progress can be charted. The examination of use in relation to need pinpoints segments of the population for whom intensified efforts at service provision are most needed. In countries where most women have tried at least one method, practical problems with particular methods or in obtaining supplies may be important obstacles to further advances in the program. Survey findings on these topics can provide important guidance to administrators for the improvement of services.

As in other chapters, comparison of survey results with other data sources (previous surveys, service statistics) should be made wherever possible. Care is needed to ensure that measurement procedures in these other sources do not differ from those employed by DHS, because reported levels of knowledge and use can be highly sensitive to seemingly minor changes in definition.

It may also be helpful to give the reader further details of family planning services. Such information will assist interpretation of survey results, particularly those concerning knowledge of specific methods.

Table 5.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents and sexually active unmarried respondents age 15-49 who know any contraceptive method, by specific method [country, year]

Method	Women			Men		
	All women	Currently married women	Sexually active unmarried women ¹	All men	Currently married men	Sexually active unmarried men ¹
Any method						
Any modern method						
Female sterilization						
Male sterilization						
Pill						
IUD						
Injectables						
Implants						
Male condom						
Female condom						
Lactational amenorrhea method (LAM)						
Emergency contraception						
Other modern method						
Any traditional method						
Rhythm						
Withdrawal						
Folk method						
Mean number of methods known by respondents 15-49						
Number of respondents						
Mean number of methods known by respondents 15-54[59]	na	na	na			
Number of respondents	na	na	na			

¹ Had last sexual intercourse within 30 days preceding the survey

Knowledge of contraceptive methods is presented for all women, for currently married women, and for sexually active unmarried women, by specific method. The mean number of methods known is a rough indicator of the breadth of knowledge of family planning methods.

The row for the lactational amenorrhea method (LAM) should be included only when LAM (not just breastfeeding) was specified in the contraceptive grid of the questionnaire. It should also be discussed in the text what the LAM method is. Effective use of the lactational amenorrhea method (LAM) means that a woman is exclusively or predominantly breastfeeding, is less than 6 months postpartum, is postpartum amenorrheic, and knows to use another contraceptive method when any of the previous criteria do not hold.

During data editing, a new code for “Other modern method” will routinely be generated for Q301 (knowledge of methods), Q302 (ever use of methods), and Q311 and column 1 in the calendar (current use of methods). Any contraceptive methods in the “Other – specify” category in Q301 that are modern methods will be reclassified into the new “Other modern method” category unless there are a sufficient number of cases for a single method to warrant creating a new code for that method. The reclassification decision should be made by the DHS country manager and/or the technical staff in the country implementing agency. Other modern methods may include the contraceptive patch, the hormonal vaginal ring, diaphragm, contraceptive foam and spermicidal jelly and cream. Any remaining cases in the “Other – specify” category in Q301 should only include folk methods. Since in the questionnaire, “Other method” (including both folk methods and “other” modern methods) follows the same skip pattern as specific traditional methods, the questions on most recent source and side effects are not asked for this group. This means that Tables 5.11 and 5.12 for contraceptive source and informed choice about contraceptive methods will continue to exclude the small number of women currently using an “other” modern method. Earlier DHS surveys did not include “Other” modern methods in the “Any modern method” category and in more recent surveys, “folk method” was also not included in the “Any traditional method” category. This should be taken into consideration when drawing comparisons.

Table 5.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, [country, year]

Background characteristic	Women			Men		
	Heard of any method	Heard of any modern method ¹	Number of women	Heard of any method	Heard of any modern method ¹	Number of men
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]	na	na	na			
Total 15-54[59]	na	na	na			

¹Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, lactational amenorrhea method (LAM), emergency contraception, and other modern methods

Knowledge of any *modern* method of contraception is chosen as a summary indicator of knowledge in addition to knowledge of *any* method, because of its greater relevance for program publicity, which is usually confined to modern methods. The table is restricted to currently married respondents in order to facilitate comparison between subgroups, which may differ in their marital composition.

Where knowledge is high (80 percent or more) among all subgroups of the population, there is little point in publishing the full table.

Table 5.3 1 Ever use of contraception: Women

Percentage of all women, currently married women and sexually active unmarried women age 15-49 who have ever used any contraceptive method by method, according to age, [country, year]

Age	Modern method											Traditional method			Number of women		
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Emergency contraception	Other	Any traditional method		Rhythm	Withdrawal
ALL WOMEN																	
15-19																	
20-24																	
25-29																	
30-34																	
35-39																	
40-44																	
45-49																	
Total																	
CURRENTLY MARRIED WOMEN																	
15-19																	
20-24																	
25-29																	
30-34																	
35-39																	
40-44																	
45-49																	
Total																	
SEXUALLY ACTIVE UNMARRIED WOMEN ¹																	
15-19																	
20-24																	
25+																	
Total																	
LAM = Lactational amenorrhea method																	
¹ Women who last had sexual intercourse within 30 days preceding the survey																	

This is a straightforward descriptive table that looks at the extent to which women have had experience with the use of contraceptive methods. Differences between age groups may reflect lifetime effects and/or genuine cohort change.

Table 5.3 2 Ever use of contraception: Men

Percentage of all men, currently married men and sexually active unmarried men age 15-49 who have ever used any contraceptive method by method, according to age, [country, year]

Age	Modern method					Traditional method			Number of men
	Any method	Any modern method	Male sterilization	Male condom	Female condom	Any traditional method	Rhythm	Withdrawal	
ALL MEN									
15-19									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
Total 15-49									
50-54[59]									
Total 15-54[59]									
CURRENTLY MARRIED MEN									
15-19									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
Total 15-49									
50-54[59]									
Total 15-54[59]									
SEXUALLY ACTIVE UNMARRIED MEN ¹									
15-19									
20-24									
25+									
Total 15-49									
50-54[59]									
Total 15-54[59]									
¹ Men who last had sexual intercourse within 30 days preceding the survey									

Table 5.4 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, [country, year]

Age	Modern method											Traditional method					Total	Number of women
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Other	Any traditional method	Rhythm	Withdrawal	Folk method		
ALL WOMEN																		
15-19																		100.0
20-24																		100.0
25-29																		100.0
30-34																		100.0
35-39																		100.0
40-44																		100.0
45-49																		100.0
Total																		100.0
CURRENTLY MARRIED WOMEN																		
15-19																		100.0
20-24																		100.0
25-29																		100.0
30-34																		100.0
35-39																		100.0
40-44																		100.0
45-49																		100.0
Total																		100.0
SEXUALLY ACTIVE UNMARRIED WOMEN ¹																		
15-19																		100.0
20-24																		100.0
25+																		100.0
Total																		100.0

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

LAM = Lactational amenorrhea method

¹Women who last had sexual intercourse within 30 days preceding the survey

The level of current use is the most widely used and valuable measure of the success of a family planning program. Furthermore, it can be used to estimate the reduction in fertility attributable to contraception.

Table 5.4 presents data for the whole sample, as well as for currently married women and sexually active unmarried women, by age group. Interpretation should focus on the results for currently married women. The data for never-married sexually inactive women (included in the "all women" category) are probably less reliable and, in any case, the meaning of current use is unclear when sexual intercourse is sporadic, which will often be the case for single women.

Typically, an inverted U-shaped pattern of prevalence by age will be observed for the currently married sample. Use is lower among young women (because they are in an early stage of family building) and among older women (some of whom are no longer fecund) than among those at intermediate ages.

Table 5.5.1 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, [country, year]

Background characteristic	Any method	Any modern method	Modern method										Any traditional method	Traditional method			Total	Number of women			
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Other		Rhythm	Withdrawal	Folk method			Not currently using		
Number of living children																					
0																					100.0
1-2																					100.0
3-4																					100.0
5+																					100.0
Residence																					
Urban																					100.0
Rural																					100.0
Region																					100.0
Region 1																					100.0
Region 2																					100.0
Region 3																					100.0
Region 4																					100.0
Education																					100.0
No education																					100.0
Primary																					100.0
Secondary																					100.0
More than secondary																					100.0
Wealth quintile																					100.0
Lowest																					100.0
Second																					100.0
Middle																					100.0
Fourth																					100.0
Highest																					100.0
Total																					100.0

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

LAM = Lactational amenorrhea method

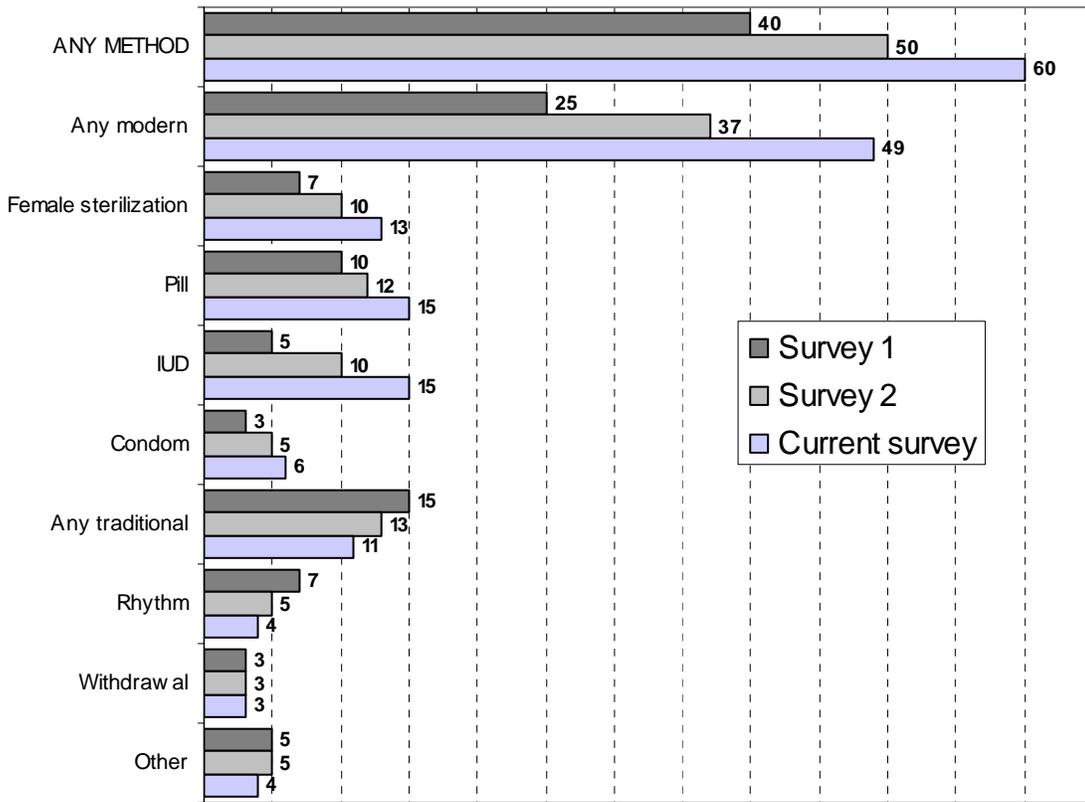
This table allows the comparison of levels of current contraceptive use among major groups of the population. It also permits an examination of differences in the method mix among current users in the various subgroups.

Table 5.5.2 Trends in current use of contraception

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to several surveys

Method	Survey 1	Survey 2	Current survey
Any method			
Any modern method			
Female sterilization			
Pill			
IUD			
Male condom			
Other modern method			
Any traditional method			
Rhythm			
Withdrawal			
Other			
Not currently using			
Total	100.0	100.0	100.0
Number of women			

**Figure 5.1
Trends in Contraceptive Use
among Currently Married Women**



Percentage of currently married women

Table 5.6 Number of living children at first use of contraception								
Percent distribution of women age 15-49 by number of living children at time of first use of contraception, according to current age, [country, year]								
Current age	Never used	Number of living children					Total	Number of women
		0	1	2	3	4+		
15-19							100.0	
20-24							100.0	
25-29							100.0	
30-34							100.0	
35-39							100.0	
40-44							100.0	
45-49							100.0	
Total							100.0	

An important point of this table is to examine cohort change in parity at first use of contraception. Many older women may have started contraceptive use for family limitation only after they reached high parities. Young women may start earlier as a result of lower desired family size and/or use for spacing of births.

This table enables the analyst to examine cohort changes (as indicated by differences between age groups) in the early adoption of contraception. In conjunction with other data in this report, it will afford some insight into the tendency of women to adopt contraception for spacing purposes.

Note that this table used to be run for only ever users of contraception, which created a bias, since younger women who had ever used by definition had to first use at a young age. It is now structured in terms of all women. A column for 'Never used' was added.

Table 5.7 Use of social marketing brand pills and condoms				
Percentage of pill and condom users age 15-49 using a specific social marketing brand, by background characteristics, [country, year]				
Background characteristic	Among pill users:		Among condom users:	
	Percentage using <i>Brand X</i> [or <i>Brand Y</i>]	Number of women using the pill	Percentage using <i>Brand X</i> [or <i>Brand Y</i>]	Number of women using condoms
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total				
Note: Table excludes pill and condom users who do not know the brand name. Condom use is based on women's reports.				

Table 5.7 is country-specific. For some countries in which a substantial number of women use oral contraceptives or condoms, there is an interest in determining the proportion currently using a social marketing brand. This table is for use in countries that have social marketing programs and may be modified to include brand names also.

Note that the information on condom brands is obtained from women.

It is useful to identify the specific brands either in the top stub or in a footnote.

Table 5.8 Knowledge of the fertile period			
Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method , [country, year]			
Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual period begins			
During her menstrual period			
Right after her menstrual period has ended			
Halfway between two menstrual periods			
Other			
Don't know			
Missing			
Total	100.0	100.0	100.0
Number of women			

An elementary knowledge of reproductive physiology provides a useful background for successful practice of coitus-associated methods such as withdrawal, condoms, and vaginal methods. Knowledge is particularly critical in the case of the rhythm method.

Table 5.9 Timing of sterilization

Percent distribution of sterilized women age 15-49 by age at the time of sterilization and median age at sterilization, according to the number of years since the operation, [country, year]

Years since operation	Age at time of sterilization						Total	Number of women	Median age ¹
	<25	25-29	30-34	35-39	40-44	45-49			
<2							100.0		
2-3							100.0		
4-5							100.0		
6-7							100.0		
8-9							100.0		
10+							100.0		
Total							100.0		a

a = Not calculated due to censoring

¹Median age at sterilization is calculated only for women sterilized before age 40 to avoid problems of censoring

In countries where contraceptive sterilization is prevalent, there is interest in knowing the trend in the adoption of the method and in determining whether the age at the time of sterilization is declining. To minimize problems of censoring, the median age at the time of sterilization should be presented only for women sterilized at less than 40 years of age.

Table 5.10 Source of modern contraceptive methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of the method, according to method, [country, year]

Most recent source of method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	Total
Public sector									
Government hospital									
Government health center									
Family planning clinic									
Mobile clinic									
Fieldworker									
Other									
Private medical sector									
Private hospital/clinic									
Pharmacy									
Private doctor									
Mobile clinic									
Fieldworker									
Other									
Other source									
Shop									
Church									
Friend/relative									
Other									
Missing									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women									

Note: Total includes other modern methods but excludes lactational amenorrhea method (LAM).

This tabulation is intended simply to document the main sources of contraception for users of different contraceptive methods. Such information is important to family planning program officials. Since source is method-specific, it is not advisable to group a number of methods. Instead methods with a small number of users need not be shown.

If methods are dropped from the table a footnote should be added to state that the total includes X number of users of a method who are not shown separately.

Table 5.11 Cost of modern contraceptive methods

Percentage of current users of modern contraceptive methods age 15-49 who did not pay for the method and who do not know the cost of the method and the median cost of the method by current method, according to source of current method, [country, year]

Source of method/cost	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	Dia-phragm	Foam/jelly	Total
Public sector											
Percentage free											
Do not know cost											
Median cost [in currency] ¹											
Number of women											
Private medical sector/other											
Percentage free											
Do not know cost											
Median cost [in currency] ¹											
Number of women											
Total											
Percentage free											
Do not know cost											
Median cost [in currency] ¹											
Number of women											
<p>Note: Table excludes lactational amenorrhea method (LAM). Costs are based on the last time current users obtained method. Costs include consultation costs, if any. For condom, costs are per package; for pills, per cycle. For sterilization, data are based on women who received the operation in the 5 years before the survey.</p> <p>¹Median cost is based only on those women who reported a cost</p>											

Note: Percentages and medians should be calculated only on users within each panel (Public sector, private medical sector/other, and Total).

Note to programmers: In order to program the code used to calculate the median costs for each method, it is necessary to first run a table of maximum costs for each method.

Table 5.12 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects and the percentage who were informed about other methods they could use, by method and initial source; and among sterilized women, the percentage who were informed that the method is permanent, by initial source. [country, year]

Method/source	Among women who started last episode of modern contraceptive method within five years preceding the survey:				Among women who were sterilized:	
	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if experienced side effects	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women	Percentage who were informed that sterilization is permanent ¹	Number of women
Method						
Female sterilization						
Pill					na	
IUD					na	
Injectables					na	
Implants						
Initial source of method²						
<i>Public sector</i>						
Government hospital						
Government health center						
Family planning clinic						
Mobile clinic						
Fieldworker					na	
<i>Private medical sector</i>						
Private hospital/clinic						
Private doctor						
Pharmacy					na	
<i>Other private sector</i>						
Total						

Note: Table excludes users who obtained their method from friends/relatives.
na = Not applicable
¹Among women who were sterilized in the five years preceding the survey
²Source at start of current episode of use

Informed choice is a necessary part of family planning programs. All providers of sterilization must inform potential users of sterilization that it is a permanent, irreversible method; they must also be informed of other methods that could be used. Family planning providers should also inform all method users of the potential side effects and what they should do if they encounter any of the effects. This information both assists the user in coping with side effects and decreases unnecessary discontinuation of temporary methods. Users of temporary methods should also be informed of the choices they have with respect to other methods. Informed choice should be analyzed by type of method and type of provider in order to improve policy and program practices.

Table 5.13 First-year contraceptive discontinuation rates	
Among women age 15-49 who started an episode of contraceptive use in the last five years, the percentage of episodes discontinued within 12 months, by type of method, [country, year]	
Method	Total
Female sterilization	
Male sterilization	
Pill	
IUD	
Injectables	
Implants	
Male condom	
Female condom	
Other modern	
Rhythm	
Withdrawal	
All methods	
Number of episodes of use	
Note: Table is based on episodes of contraceptive use that began 3-59 months prior to the survey.	

Reasons for discontinuation are no longer being collected in the core questionnaire. However, countries that do collect reason for discontinuation will use subscript j to indicate reason in the formulas below and text given in brackets. Where reason is not collected delete subscript j and text in brackets.

The table includes cumulative one-year discontinuation rates; these represent the proportion of users discontinuing a method within 12 months after the start of use (Q_{12j}). The monthly rates (q_{ij}) are calculated by dividing the number of discontinuations at each duration of use 'i' in single months (d_{ij}) by the number of women exposed at that duration (e_i):

$$q_i = \frac{d_i}{e_i}$$

and p_{kj} is the probability of continuing to use at each duration,

$$p_k = \prod_{i=1}^k (1 - q_i)$$

and the cumulative probability of discontinuing within 12 months is Q_i where $i=12$ and

$$Q_i = 1 - p_k$$

Note that these are true multiple decrement life tables (sometimes referred to as "net rates".) [The various reasons for discontinuation are treated as competing risks and the q 's are additive across reasons for discontinuing.] The program also provides working tables with the numbers of discontinuations and exposure, single month q 's, and the probabilities of continuing.

The rates are calculated from information collected in the calendar portion of the questionnaire. All episodes of contraceptive use between January of the first year of the calendar and the date of interview are recorded in the calendar. Thus, discontinuation rates presented in this table refer to only to episodes of contraceptive use that *began* during the period of time covered by the calendar, not all episodes that occurred during this period. Specifically, the rates presented in Table 5.13 refer to the period 3-59 months prior to the survey — the month of interview and the 2 months prior are ignored in order to avoid the bias that may be introduced by unrecognized pregnancies.

The program is currently set up to suppress results for specific contraceptive methods that have fewer than 125 women exposed in month 1. If any category is not shown, a footnote should be added indicating that these women are included under all methods.

Table 5.14 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, [country, year]

Intention to use in the future	Number of living children ¹					Total
	0	1	2	3	4+	
Intends to use						
Unsure						
Does not intend to use						
Missing						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women						

¹Includes current pregnancy

Intention to use contraception in the future provides a forecast of potential demand for services and acts as a convenient summary indicator of disposition toward contraception among current nonusers. It should be realized that respondents may or may not adhere to their intentions for future use.

Table 5.15 Reason for not intending to use contraception in the future	
Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future by main reason for not intending to use, [country, year]	
Reason	Percent distribution
Fertility-related reasons	
Infrequent sex/no sex	
Menopausal/had hysterectomy	
Subfecund/infecund	
Wants as many children as possible	
Opposition to use	
Respondent opposed	
Husband/partner opposed	
Others opposed	
Religious prohibition	
Lack of knowledge	
Knows no method	
Knows no source	
Method-related reasons	
Health concerns	
Fear of side effects	
Lack of access/too far	
Costs too much	
Inconvenient to use	
Interferes with body's normal processes	
Other	
Don't know	
Total	100.0
Number of women	

Table 5.16 Preferred method of contraception for future use	
Percent distribution of currently married women age 15-49 who are not using a contraceptive method but who intend to use in the future by preferred method,[country, year]	
Preferred method	Percent distribution
Female sterilization	
Male sterilization	
Pill	
IUD	
Injectables	
Implants	
Male condom	
Female condom	
Diaphragm	
Foam/jelly	
Lactational amenorrhea method (LAM)	
Other modern method	
Rhythm	
Withdrawal	
Folkloric method	
Unsure of method	
Total	100.0
Number of women	

This table provides some indication of women's preferences for the method they might use in the future. The information should be interpreted with caution since there are two conditions implied: intention to use and method preferred if intention is followed.

Table 5.17 Exposure of respondents to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio, television or in a newspaper in the past few months, according to background characteristics, [country, year]

Background characteristic	Women					Men				
	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of women	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of men
Age										
15-19										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Education										
No education										
Primary										
Secondary										
More than secondary										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total 15-49										
50-54[59]	na	na	na	na	na					
Total 15-54[59]	na	na	na	na	na					

na = Not applicable

Before presenting these results, some prior discussion is required of the extent to which radio, television and newspaper/magazine publicity is used by family planning agencies. The purpose of Table 5.18 is to assess the coverage of specific population groups achieved through various family planning messages in various media.

Table 5.18 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who neither discussed family planning with a fieldworker nor at a health facility, by background characteristics, [country, year]

Background characteristic	Percentage of women who were visited by a fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who neither discussed family planning with a fieldworker nor at a health facility	Number of women
		discussed family planning	did not discuss family planning		
Age					
15-19					
20-24					
25-29					
30-34					
35-39					
40-44					
45-49					
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Education					
No education					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
Total					

Table 5.19 Husband/partner's knowledge of women's use of contraception

Among currently married women age 15-49 who are using a method, percent distribution by whether they report that their husbands/partners know about their use, according to background characteristics, [country, year]

Background characteristic	Knows ¹	Does not know	Unsure whether knows	Total	Number of women
Age					
15-19				100.0	
20-24				100.0	
25-29				100.0	
30-34				100.0	
35-39				100.0	
40-44				100.0	
45-49				100.0	
Residence					
Urban				100.0	
Rural				100.0	
Region					
Region 1				100.0	
Region 2				100.0	
Region 3				100.0	
Region 4				100.0	
Education					
No education				100.0	
Primary				100.0	
Secondary				100.0	
More than secondary				100.0	
Wealth quintile					
Lowest				100.0	
Second				100.0	
Middle				100.0	
Fourth				100.0	
Highest				100.0	
Total				100.0	

¹Includes women who report use of male sterilization, male condoms, or withdrawal.

CHAPTER 6

OTHER PROXIMATE DETERMINANTS OF FERTILITY

This chapter addresses the principal factors, other than contraception, that affect a woman's risk of becoming pregnant: nuptiality and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and menopause.

Marriage is a primary indication of the exposure of women to the risk of pregnancy and, therefore, is important for the understanding of fertility. Populations in which age at marriage is low tend to be populations with early childbearing and high fertility. For this reason, there is an interest in trends in age at marriage.

The chapter also includes information on more direct measures of the beginning of exposure to pregnancy and the level of exposure: age at first sexual intercourse and the frequency of intercourse.

Finally, measures of several other proximate determinants of fertility which, like marriage and sexual intercourse, influence exposure to the risk of pregnancy are presented: durations of postpartum amenorrhea, postpartum abstinence, and menopause.

Table 6.1 Current marital status

Percent distribution of women and of men age 15-49 by current marital status, according to age, [country, year]

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
WOMEN									
15-19							100.0		
20-24							100.0		
25-29							100.0		
30-34							100.0		
35-39							100.0		
40-44							100.0		
45-49							100.0		
Total							100.0		
MEN									
15-19							100.0		
20-24							100.0		
25-29							100.0		
30-34							100.0		
35-39							100.0		
40-44							100.0		
45-49							100.0		
Total 15-49							100.0		
50-54[59]							100.0		
Total 15-54[59]							100.0		

This is a descriptive table of basic importance in defining the population base for many of the subsequent tables. In this table, the term "married" is intended to mean legal or formal marriage, while "living together" designates an informal union. Widowed, divorced, and separated women make up the remainder of the "ever-married" or "ever-in-union" category.

Table 6.2.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, according to background characteristics, [country, year]

Background characteristic	Number of co-wives			Total	Number of women
	0	1	2+		
Age					
15-19				100.0	
20-24				100.0	
25-29				100.0	
30-34				100.0	
35-39				100.0	
40-44				100.0	
45-49				100.0	
Residence					
Urban				100.0	
Rural				100.0	
Region					
Region 1				100.0	
Region 2				100.0	
Region 3				100.0	
Region 4				100.0	
Education					
No education				100.0	
Primary				100.0	
Secondary				100.0	
More than secondary				100.0	
Wealth quintile					
Lowest				100.0	
Second				100.0	
Middle				100.0	
Fourth				100.0	
Highest				100.0	
Total				100.0	

Tables 6.2.1 and 6.2.2 should be included only for countries where polygyny is practiced. For some countries, mainly in Africa, marriages can be subdivided into polygynous and monogamous unions. The distinction has social significance and possible fertility implications, though the relationship between union type and fertility is complex. The prevalence of polygynous unions usually increases with age, a tendency that may reflect a trend away from polygyny among younger couples or a life cycle effect.

Table 6.2.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, [country, year]

Background characteristic	Number of wives		Total	Number of men
	1	2+		
Age				
15-19			100.0	
20-24			100.0	
25-29			100.0	
30-34			100.0	
35-39			100.0	
40-44			100.0	
45-49			100.0	
Residence				
Urban			100.0	
Rural			100.0	
Region				
Region 1			100.0	
Region 2			100.0	
Region 3			100.0	
Region 4			100.0	
Education				
No education			100.0	
Primary			100.0	
Secondary			100.0	
More than secondary			100.0	
Wealth quintile				
Lowest			100.0	
Second			100.0	
Middle			100.0	
Fourth			100.0	
Highest			100.0	
Total 15-49			100.0	
50-54[59]			100.0	
Total 15-54[59]			100.0	

Table 6.3 Age at first marriage								
Percentage of women and men age 15-49 who were first married by specific exact ages, and median age at first marriage, according to current age, [country, year]								
Current age	Percentage first married by exact age:					Percentage never married	Number of respondents	Median age at first marriage
	15	18	20	22	25			
WOMEN								
15-19		na	na	na	na			
20-24				na	na			
25-29								
30-34								
35-39								
40-44								
45-49								
20-49				na	na			
25-49								
MEN								
15-19		na	na	na	na			
20-24				na	na			
25-29								
30-34								
35-39								
40-44								
45-49								
20-49				na	na			
25-49								
20-54[59]				na	na			
25-54[59]								

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse or partner.
na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

Whether or not the start of marriage coincides with the initiation of sexual intercourse, and thus, the beginning of exposure to the risk of pregnancy, first marriage is an important social and demographic indicator and, in most societies, represents the point in a person's life when childbearing first becomes welcome. Note that in this table "married" includes "living with a woman/man". In this table, the age at first marriage is defined as the age at which the respondent began living with her/his first spouse or partner.

Trends in age at marriage by persons of different age cohorts can be described by comparing the cumulative distribution for successive younger age groups. In drawing conclusions concerning trends, the data for the oldest age cohorts should be interpreted cautiously since respondents may not recall dates or ages at marriage with accuracy, particularly in populations where informal unions are common.

For each cohort the accumulated percentages stop at the lower age boundary of the cohort to avoid censoring problems. For instance, for the cohort currently age 20-24, accumulation should stop with the percentage married by exact age 20.

As a measure of central tendency, the median age at marriage is used. The median here is defined as the age by which half of the cohort has married, not the age by which half of those married have started living with their spouse. The median is preferred over the mean as a measure of central tendency, because, unlike the mean, it can be estimated for all cohorts where at least half are ever-married at the time of survey.

Another, often more reliable, way of estimating trends is by comparison of the percentage ever married for five-year age groups with similar data from earlier censuses and surveys. Possible definitional inconsistencies between data sets should be considered when making such comparisons.

Table 6.4.1 Median age at first marriage: Women

Median age at first marriage among women by five-year age groups, age 20-49 and age 25-49, according to background characteristics, [country, year]

Background	Current age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								

Note: The age at first marriage is defined as the age at which the respondent began living with her first husband/partner.
 a = Omitted because less than 50 percent of the women began living with their husbands/partners for the first time before reaching the beginning of the age group

Tables 6.4.1 and 6.4.2 present the median age at first marriage for different cohorts and compares age at marriage for different subgroups of the population. Columns for ages 20-24 and 20-49 (women), 20-54[59] (men) may be omitted in countries where several of the cells have less than 50 percent of the respondents who started living with their spouse for the first time by age 20. Medians in individual cells should be omitted if less than 50 percent of the respondents in the cell started living with their spouse before the beginning of the age group.

Subgroup trends and differentials can be described on the basis of each table, in comparison with previous surveys. Again, to avoid the problem of censoring for young cohorts, the median should be shown for age groups 20-49 (women) and 20-54 (men) only in early marrying population. In late-marrying populations, medians should be shown instead for age groups 25-49 (women) and 25-54 (men).

Table 6.4.2 Median age at first marriage: Men

Median age at first marriage among men by five-year age groups, age 20-54[59] and age 25-54[59], according to background characteristics, [country, year]

Background characteristic	Current age							Men age 20-54[59]	Men age 25-54[59]
	20-24	25-29	30-34	35-39	40-44	45-49	50-54[59]		
Residence									
Urban									
Rural									
Region									
Region 1									
Region 2									
Region 3									
Region 4									
Education									
No education									
Primary									
Secondary									
More than secondary									
Wealth quintile									
Lowest									
Second									
Middle									
Fourth									
Highest									
Total									

Note: The age at first marriage is defined as the age at which the respondent began living with his first wife/partner.
 a = Omitted because less than 50 percent of the men began living with their wives/partners for the first time before reaching the beginning of the age group

Table 6.5 Age at first sexual intercourse								
Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had intercourse, and median age at first intercourse, according to current age, [country, year]								
Current age	Percentage who had first sexual intercourse by exact age:					Percentage who never had intercourse	Number of respondents	Median age at first intercourse
	15	18	20	22	25			
WOMEN								
15-19		na	na	na	na			
20-24				na	na			
25-29								
30-34								
35-39								
40-44								
45-49								
20-49				na	na			
25-49								
15-24		na	na	na	na			
MEN								
15-19		na	na	na	na			
20-24				na	na			
25-29								
30-34								
35-39								
40-44								
45-49								
20-49				na	na			
25-49								
15-24		na	na	na	na			
20-54[59]								
25-54[59]								
na = Not applicable due to censoring								
a = Omitted because less than 50 percent of the respondents had intercourse for the first time before reaching the beginning of the age group								

Age at first marriage has long been used as a proxy for the beginning of exposure to the risk of pregnancy. In some countries, however, the beginning of exposure may occur before (or in a few cases after) the couple begins living together or is formally married. The information in Table 6.5 parallels the information in Table 6.3 on marriage. It allows an assessment of the age at which women and men start having sexual intercourse and the trend in this indicator across age cohorts.

The median for the age group 15-24 corresponds to UNAIDS *Young People's Sexual Behavior* Indicator 1 "Median age at first sex among young men and women"

Table 6.6.1 Median age at first sexual intercourse: Women

Median age at first sexual intercourse among women by five-year age groups, age 20-49 and age 25-49, according to background characteristics, [country, year]

Background characteristic	Current age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								

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

Table 6.6.1 and 6.6.2 present the median age at first sexual intercourse for different cohorts and compares age at first sexual intercourse for different subgroups of the population. Columns for ages 20-24 and 20-49 (women), 20-54[59] (men) may be omitted in countries where several of the cells have less than 50 percent who have had sexual intercourse for the first time by age 20. Medians in individual cells should be omitted if less than 50 percent in the cell had first sexual intercourse before the beginning of the age group.

The median is defined here as the exact age by which 50 percent of an age cohort had sexual intercourse for the first time. The tables should be used to describe differentials in age at first intercourse between population subgroups and to examine trends within subgroups.

Table 6.6.2 Median age at first sexual intercourse: Men

Median age at first sexual intercourse among men by five-year age groups, age 20-54[59] and age 25-54[59], according to background characteristics, [country, year]

Background characteristic	Current age							Men age 20-54[59]	Men age 25-54[59]
	20-24	25-29	30-34	35-39	40-44	45-49	50-54[59]		
Residence									
Urban									
Rural									
Region									
Region 1									
Region 2									
Region 3									
Region 4									
Education									
No education									
Primary									
Secondary									
More than secondary									
Wealth quintile									
Lowest									
Second									
Middle									
Fourth									
Highest									
Total									

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

Table 6.7.1 Recent sexual activity: Women							
Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, [country, year]							
Background characteristic	Timing of last sexual intercourse			Missing	Never had sexual intercourse	Total	Number of women
	Within the last 4 weeks	Within 1 year ¹	One or more years				
Age							
15-19						100.0	
20-24						100.0	
25-29						100.0	
30-34						100.0	
35-39						100.0	
40-44						100.0	
45-49						100.0	
Marital status							
Never married						100.0	
Married or living together						100.0	
Divorced/separated/widowed						100.0	
Marital duration²							
Married only once						100.0	
0-4 years						100.0	
5-9 years						100.0	
10-14 years						100.0	
15-19 years						100.0	
20-24 years						100.0	
25+ years						100.0	
Married more than once						100.0	
Residence							
Urban						100.0	
Rural						100.0	
Region							
Region 1						100.0	
Region 2						100.0	
Region 3						100.0	
Region 4						100.0	
Education							
No education						100.0	
Primary						100.0	
Secondary						100.0	
More than secondary						100.0	
Wealth quintile							
Lowest						100.0	
Second						100.0	
Middle						100.0	
Fourth						100.0	
Highest						100.0	
Total						100.0	

¹Excludes women who had sexual intercourse within the last 4 weeks

²Excludes women who are not currently married

In the absence of contraception, the probability of pregnancy is related to the regularity of sexual intercourse. Thus, information on intercourse is important for refinement of the measurement of exposure to pregnancy. Tables 6.7.1 and 6.7.2 are based on the question on time since last intercourse and allows an assessment of the overall level of sexual activity across age- and marital-duration groups.

Table 6.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, [country, year]

Background characteristic	Timing of last sexual intercourse			Missing	Never had sexual intercourse	Total	Number of men
	Within the last 4 weeks	Within 1 year ¹	One or more years				
Age							
15-19						100.0	
20-24						100.0	
25-29						100.0	
30-34						100.0	
35-39						100.0	
40-44						100.0	
45-49						100.0	
Marital status							
Never married						100.0	
Married or living together						100.0	
Divorced/separated/widowed						100.0	
Marital duration²							
Married only once						100.0	
0-4 years						100.0	
5-9 years						100.0	
10-14 years						100.0	
15-19 years						100.0	
20-24 years						100.0	
25+ years						100.0	
Married more than once						100.0	
Residence							
Urban						100.0	
Rural						100.0	
Region							
Region 1						100.0	
Region 2						100.0	
Region 3						100.0	
Region 4						100.0	
Education							
No education						100.0	
Primary						100.0	
Secondary						100.0	
More than secondary						100.0	
Wealth quintile							
Lowest						100.0	
Second						100.0	
Middle						100.0	
Fourth						100.0	
Highest						100.0	
Total 15-49						100.0	
50-54[59]						100.0	
Total 15-54[59]						100.0	

¹Excludes men who had sexual intercourse within the last 4 weeks

²Excludes men who are not currently married

Table 6.8 Postpartum amenorrhea, abstinence, and insusceptibility				
Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, [country, year]				
Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible ¹	
<2				
2-3				
4-5				
6-7				
8-9				
10-11				
12-13				
14-15				
16-17				
18-19				
20-21				
22-23				
24-25				
26-27				
28-29				
30-31				
32-33				
34-35				
Total				
Median				na
Mean				na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
¹Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

Postpartum protection from conception can be prolonged by breastfeeding, which can lengthen the duration of amenorrhea, and/or by delayed resumption of sexual relations.

In this table, the percentages of births for which mothers are postpartum amenorrheic and abstaining are presented along with the percentage of births for which mothers are defined as still postpartum insusceptible. The latter category includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth and, thus, not exposed (i.e., insusceptible) to the risk of pregnancy.

These estimates are based on current status measures. The distributions of the proportion of births by the month of birth of the child are analogous to the l_x column of the synthetic life table. (Note that this tabulation is birth-based rather than woman-based.) For purposes of providing some stability to the proportions, the birth data should be grouped in two or three-month intervals. The l_x values should decline with duration but small sample sizes may cause some irregularity.

Estimates of means and medians are based on the current status proportions at each time since birth (duration) group. Non-surviving children are included.

Before estimating the median, the distribution is smoothed by a moving average of three age groups. The first age (duration) for which the proportion falls below 0.50 is used for the calculation of the median by linear interpolation between that age group and the next youngest group.

For estimating the median age at which the youngest age group contains a proportion less than 0.50, the value of 1.00 will be taken for the preceding age group. The width of the first interval will be taken to be 1.50 months (using 0.50 months for children born in the month of interview). Estimation of the mean durations will be done using the current-status proportions by summing the product of the proportion (not in percents) and width of the age (duration) interval. To this sum will be added one-half the width of the lowest duration interval (i.e., 0.75).

Table 6.9 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility			
Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics,			
Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility ¹
Mother's age			
15-29			
30-49			
Residence			
Urban			
Rural			
Region			
Region 1			
Region 2			
Region 3			
Region 4			
Mother's education			
No education			
Primary			
Secondary			
More than secondary			
Wealth quintile			
Lowest			
Second			
Middle			
Fourth			
Highest			
Total			
Note: Medians are based on the status at the time of the survey (current status).			
¹ Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth			

In the absence of contraception, variations in postpartum amenorrhea and abstinence are the most important determinants of the interval between births and, ultimately, of completed fertility. In some populations differentials across subgroups in the duration of postpartum amenorrhea and abstinence also may indicate incipient changes in traditional postpartum practices. A shortening of the period of postpartum insusceptibility has implications for the provision of family planning services to recent mothers.

Table 6.10 Menopause		
Percentage of women age 30-49 who are menopausal, by age, [country, year]		
Age	Percentage menopausal ¹	Number of women
30-34		
35-39		
40-41		
42-43		
44-45		
46-47		
48-49		
Total		
¹ Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey		

Above age 30, exposure to the risk of pregnancy declines with age. Table 6.10 presents an important indicator concerning fecundity as measured by evidence of menopause. The lack of a menstrual period in the preceding six months among women who are neither pregnant nor postpartum amenorrheic is taken as evidence of menopause and therefore infecundity.

Another facet of loss of exposure not shown in this table is terminal separation, divorce and widowhood where the woman does not remarry before the end of her childbearing years. Currently, there is not enough information on the marriage history to define a reasonably precise indicator, but some indication may be gathered from Table 6.1.

A third factor affecting the end of fertility is the lack of exposure due to long-term abstinence among currently married women. Many of these women will probably not resume sexual relations. This information is given in Table 6.8.

CHAPTER 7

FERTILITY PREFERENCES

This chapter addresses three questions that allow an assessment of the need for contraception. Does the respondent want more children? If so, how long would she prefer to wait before the next child? If she could start afresh, how many children in all would she want? Two further issues are examined. To what extent do unwanted or mistimed pregnancies occur? What effect would the prevention of such pregnancies have on the fertility rates? Bearing in mind that the underlying rationale of most family planning programs is to give couples the freedom and ability to bear the number of children they want and to achieve the spacing of births they prefer, the importance of this chapter is obvious.

Interpretation of data on fertility preferences has always been the subject of controversy. Survey questions have been criticized on the grounds that answers are misleading because: a) they reflect unformed, ephemeral views, which are held with weak intensity and little conviction; and b) they do not take into account the effect of social pressures or the attitudes of other family members, particularly the husband, who may exert a major influence on reproductive decisions. The first objection has greater force in non-contracepting societies where the idea of conscious reproductive choice may still be alien; preference data from these settings should be interpreted with caution. In societies with moderate to high levels of contraceptive use, greater interpretive weight can be attached to the findings. The second objection is correct in principle.

In practice, however, its importance is doubtful; for instance, the evidence from surveys in which both husbands and wives are interviewed suggests that there is no radical difference between the views of the two sexes.

The inclusion of women who are currently pregnant complicates the measurement of views on future childbearing. For these women, the question on desire for more children is rephrased to refer to desire for another child *after* the one that they are expecting. To take into account the way in which the preference variable is defined for pregnant women, the results are classified by number of living children, including the current pregnancy as equivalent to a living child.

Table 7.1 Fertility preferences by number of living children									
Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, [country, year]									
Desire for children	Number of living children							Total 15-49	Total 15-54[59]
	0	1	2	3	4	5	6+		
WOMEN ¹									
Have another soon ²									na
Have another later ³									na
Have another, undecided when Undecided									na
Want no more Sterilized ⁴									na
Declared infecund									na
Total Number of women	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
MEN ⁵									
Have another soon ²									na
Have another later ³									na
Have another, undecided when Undecided									na
Want no more Sterilized ⁴									na
Declared infecund									na
Total Number of men	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
na = Not applicable									
¹ The number of living children includes current pregnancy									
² Wants next birth within 2 years									
³ Wants to delay next birth for 2 or more years									
⁴ Includes both female and male sterilization									
⁵ The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).									

The table allows the potential need for contraceptive services for spacing as well as limiting births to be examined. Until recently, concern for providing appropriate contraceptive methods to couples who wish to have no further children has overshadowed contraception for child spacing purposes. The interest in spacing has been reinforced by recent evidence that: a) short birth intervals are harmful to the welfare of children and mothers; b) large numbers of couples wish to postpone childbearing by using contraception; and c) there is a potential demand for contraception for spacing births in some countries where demand for limiting family size has not yet emerged.

Table 7.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, [country, year]

Background characteristic	Number of living children ¹						Total
	0	1	2	3	4	5	
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							

Note: Women who have been sterilized are considered to want no more children.

¹The number of living children includes the current pregnancy.

In Tables 7.2.1 and 7.2.2 the percentage of respondents who want no more children is shown for each parity by selected background variables. This tabulation provides information about group variations in the potential demand for fertility control.

A frequency tabulation needs to be done in order to check that the denominator for each cell exceeds 25 unweighted cases.

Table 7.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, [country, year]

Background characteristic	Number of living children ¹						Total
	0	1	2	3	4	5	
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total 15-49							
50-54[59]							
Total 15-54[59]							

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children.

¹The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 7.3.1 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, [country, year]

Background characteristic	Unmet need for family planning ¹			Met need for family planning (currently using) ²			Total demand for family planning			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19											
20-24											
25-29											
30-34											
35-39											
40-44											
45-49											
Residence											
Urban											
Rural											
Region											
Region 1											
Region 2											
Region 3											
Region 4											
Education											
No education											
Primary											
Secondary											
More than secondary											
Wealth quintile											
Lowest											
Second											
Middle											
Fourth											
Highest											
Total											

¹ *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed; amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in *unmet need for spacing* are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth.

Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and who want no more children.

² *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another.

Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

The data in this table can be used along with projected numbers of currently married women to produce a table on the actual size of unmet need and the total demand for family planning for spacing and limiting. Nonusers who are unsure as to whether or when they want another child are included in the unmet need for spacing purposes since they need to use a contraceptive until they decide they definitely want a child within a short time or do not want another at all.

In this table amenorrheic women are those who have been amenorrheic for less than 6 months. Unmet need and met need adds up to total demand because total because we no longer have information on method failure. Thus comparisons across time periods and countries may not be strictly comparable. The departure from strict comparability will increase with higher levels of contraceptive use.

Table 7.3.2 is identical to Table 7.3.1 but for all women and for women who are not currently married. The table should not be included in the report unless requested by the country or the USAID Mission.

Table 7.3.2 Need and demand for family planning for all women and for women who are not currently married

Percentage of all women and not currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning and the percentage of the demand for contraception that is satisfied, by background characteristics, [country, year]

Background characteristic	Unmet need for family planning ¹			Met need for family planning (currently using) ²			Total demand for family planning			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
ALL WOMEN											
Age											
15-19											
20-24											
25-29											
30-34											
35-39											
40-44											
45-49											
Residence											
Urban											
Rural											
Region											
Region 1											
Region 2											
Region 3											
Region 4											
Education											
No education											
Primary											
Secondary											
More than secondary											
Wealth quintile											
Lowest											
Second											
Middle											
Fourth											
Highest											
Total											
WOMEN NOT CURRENTLY MARRIED											
Age											
15-19											
20-24											
25-29											
30-34											
35-39											
40-44											
45-49											
Residence											
Urban											
Rural											
Region											
Region 1											
Region 2											
Region 3											
Region 4											
Education											
No education											
Primary											
Secondary											
More than secondary											
Wealth quintile											
Lowest											
Second											
Middle											
Fourth											
Highest											
Total											
<p>¹ <i>Unmet need for spacing</i> includes pregnant women whose pregnancy was mistimed; amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in <i>unmet need for spacing</i> are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth. <i>Unmet need for limiting</i> refers to pregnant women whose pregnancy was unwanted; amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and who want no more children.</p> <p>² <i>Using for spacing</i> is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. <i>Using for limiting</i> is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.</p>											

Table 7.4 Ideal number of children

Percent distribution of women and men age 15-49 by ideal number of children and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, [country, year]

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
WOMEN¹								
0								
1								
2								
3								
4								
5								
6+								
Non-numeric responses								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women								
Mean ideal number of children for:²								
All women								
Number								
Currently married women								
Number								
MEN³								
0								
1								
2								
3								
4								
5								
6+								
Non-numeric responses								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men								
Mean ideal number of children for men 15-49:²								
All men								
Number								
Currently married men								
Number								
Mean ideal number of children for men 15-54[59]:²								
All men								
Number								
Currently married men								
Number								
¹ The number of living children includes current pregnancy for women ² Means are calculated excluding respondents who gave non-numeric responses ³ The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).								

Thus far in this chapter, interest has focused on the respondent's wishes for the future, implicitly taking into account the number of sons and daughters she/he already has. In ascertaining the total ideal number of children, the respondent is required to perform the more difficult task of considering abstractly and independently of her/his actual family size the number of children she/he would choose if she could start again.

There is usually a correlation between actual and ideal number of children. The reason is twofold. First, to the extent that respondents implement their preferences, those who want larger families will tend to achieve larger families. Second, respondents may adjust upward their ideal size of family as the actual number of children increases (i.e., rationalization). It is also possible that respondents with large families, being on average older than those with small families, have larger ideal sizes because of attitudes they acquired 20 to 30 years ago.

Despite the likelihood that some rationalization occurs, it is common to find that many respondents state ideal sizes lower than their actual number of surviving children. The use of ungrouped variables in Table 7.5 permits the classification of respondents at each parity into three categories: ideal size is greater than actual size; ideal size is less than actual size; ideal size equals actual size.

The second category is of particular interest, because it is an indicator of surplus or unwanted fertility, which is also a topic in a later table.

The mean should not be shown if more than 30 percent of respondents have a non-numeric response.

<u>Table 7.5 Mean ideal number of children by background characteristics</u>		
Mean ideal number of children for all women age 15-49 by background characteristics, [country, year]		
Background characteristic	Mean	Number of women ¹
Age		
15-19		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
Residence		
Urban		
Rural		
Region		
Region 1		
Region 2		
Region 3		
Region 4		
Education		
No education		
Primary		
Secondary		
More than secondary		
Wealth quintile		
Lowest		
Second		
Middle		
Fourth		
Highest		
Total		
¹ Number of women who gave a numeric response		

Mean desired family size by age should be discussed here prior to interpretation of the other differentials.

Greater interpretive emphasis should be placed on the results for women age 20-29 than for women under age 20 or age 30 and over. For some subgroups, women under age 20 may be a small selective group whose views are atypical; while for older women, the dangers of rationalization are greater.

If more than 30 percent of women have a non-numeric response to ideal number of children, this table should not be used.

Table 7.6 Fertility planning status					
Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, [country, year]					
Birth order and mother's age at birth	Planning status of birth			Total	Number of births
	Wanted then	Wanted later	Wanted no more		
Birth order					
1				100.0	
2				100.0	
3				100.0	
4+				100.0	
Mother's age at birth					
< 20				100.0	
20-24				100.0	
25-29				100.0	
30-34				100.0	
35-39				100.0	
40-44				100.0	
45-49				100.0	
Total				100.0	

Women are asked a series of questions for each child born in the preceding five years and any current pregnancy to determine whether the particular pregnancy was desired at the time (“planned”), not desired at the time but wanted at a later time, or unwanted at any time. These questions form a potentially powerful indicator of the degree to which couples successfully control childbearing. In addition, the data can be used to gauge the effect of the prevention of unwanted births on period fertility.

The questions are demanding. The respondent is required to recall accurately her wishes at one or more points in the last five years and to report them honestly. The danger of rationalization is present; an unwanted conception may well become a cherished child. Despite these potential problems of comprehension, recall and truthfulness, results from previous surveys have proved surprisingly plausible. Respondents are clearly willing to report unwanted conceptions, although some post-factum rationalization probably occurs; therefore the result is probably an underestimate of unwanted fertility.

In DHS surveys, these retrospective questions are asked independently of the questions on the desire for more children and total desired family size and have not been cross-edited at the data processing stage. Investigation of consistency of attitudes at the individual level is thus possible but is not attempted in this report. However, broad consistency at the average or aggregate level between the total ideal family size and actual fertility and wanted fertility can be examined.

Table 7.7 is a birth-based rather than a woman-based table. It provides a useful indicator of the degree of successful reproductive control exercised by couples in the recent past.

Table 7.7 Wanted fertility rates		
Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, [country, year]		
Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban		
Rural		
Region		
Region 1		
Region 2		
Region 3		
Region 4		
Education		
No education		
Primary		
Secondary		
More than secondary		
Wealth quintile		
Lowest		
Second		
Middle		
Fourth		
Highest		
Total		
Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.		

Wanted fertility rates are calculated in the same manner as the conventional age-specific fertility rates presented in Chapter 4, except that births classified as unwanted are omitted from the numerator; the remainder can be cumulated to form a total wanted fertility rate (TWFR), which is analogous to the conventional total fertility rate (TFR). The total wanted fertility rate provides another indicator of fertility aspirations and may be interpreted as the number of wanted births that a woman would bear by age 50, if she experienced the wanted fertility rates observed for the past three years.

The Lightbourne method of calculating a "wanted" birth is used for this table: a birth is considered wanted if the number of living children at the time of conception was less than the ideal number of children reported at the time of the survey.

Wanted fertility rates express the level of fertility that theoretically would result if all unwanted births were prevented. Comparison of actual rates with wanted rates indicates the potential demographic impact of the elimination of unwanted births. This calculation is highly relevant for countries that have official policies to reduce the birth rate and thus the rate of population growth.

There is a difference between ideal family size and the wanted fertility rate in that the wanted fertility rate takes observed fertility as its starting point and can never be larger than the actual TFR; ideal family size can be and often is larger than the number of children born. This characteristic of the wanted fertility rate has an advantage and a disadvantage. It may be the more realistic measure, because it takes into account the fact that fecundity impairment prevents some women from having wanted births and from achieving their desired family size. But it has the disadvantage of interpretive complexity and, like any period measure, is vulnerable to temporary influences on the level of recent fertility.

If more than 30 percent of women have a non-numeric response to ideal number of children, Table 7.8 should not be used.

CHAPTER 8

INFANT AND CHILD MORTALITY

This chapter reports information on levels, trends and differentials in perinatal, neonatal, post-neonatal, infant, child and under age five years mortality. This information is relevant both to the demographic assessment of the population and to health policies and programs. Estimates of infant and child mortality may be an input into population projections, particularly if the level of adult mortality is known from another source or can be inferred with reasonable confidence. Information on mortality of children also serves the needs of health ministries by identifying sectors of the population that are at high risk.

The chapter should begin with a statement that the data for mortality estimation were collected in the birth history section of the questionnaire. Then the mortality rates that are to be presented (neonatal, post-neonatal, infant, child, under-five and perinatal) should be clearly defined. There should also be a brief discussion of data quality prior to the presentation of mortality estimates.

The reliability of the mortality estimates depends upon full recall of children who have died, the absence of differential displacement of birth dates of surviving and dead children, and accurate reporting of ages at death. Previous survey results have often been characterized by some heaping of age at death at exactly 12 months or 1 year of age. Because age at death is recorded in completed months or years, deaths at 12 months are classified as child rather than infant deaths. In reality, some of these deaths may have occurred before the first birthday so that their classification as child deaths tends to negatively bias infant mortality estimates and positively bias child mortality estimates. The analyst should be aware that this may occur in DHS surveys, although the probable effect is usually modest and unlikely to bias the estimates by as much as 5 percent.

The issue of whether or not to present mortality estimates that are adjusted for heaping of deaths at 12 months of age is difficult to resolve, as any solution involves a somewhat arbitrary decision about the true distribution by age of the heaped deaths. In general, it is DHS policy not to present rates adjusted for heaping of age at death in the first country report. Accordingly, it is recommended that adjusted rates should only be presented as part of the discussion in the text of the chapter. Moreover, adjusted rates should only be presented if the adjustment procedure described in DHS Methodological Report No. 1 (Data Quality) results in an increase of 5 percent or more in the infant mortality estimate and if there is clear evidence (from the distribution of reported deaths by age at months as presented in Appendix Table C.6) that some deaths reported at 12 months or 1 year of age are actually infant deaths.

Included in the chapter is a table indicating the distribution of children and women according to fertility behavior that place children at an elevated risk of mortality (e.g., childbearing under age 18, over age 34 or after a birth interval less than 24 months). This information is useful for designing and monitoring programs to avoid high-risk behavior and to cope with the elevated risks.

Table 8.1 Early childhood mortality rates					
Neonatal, post-neonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, [country, year]					
Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
0-4					
5-9					
10-14					
¹ Computed as the difference between the infant and neonatal mortality rates					

The table examines the variation in neonatal, post-neonatal, infant, child, and under-five mortality rates for successive five-year periods before the survey.

It is seldom possible to establish, with confidence, mortality levels for a period more than 15 years before a survey due primarily to the fact that women are interviewed up to 49 years of age at the time of the survey. Thus, there is no information for births to increasingly older women as the time before the survey increases. For example at fifteen years prior to the survey, there is no information on births to women 35 years of age and older at that point in time.

Even within the recent 15-year period considered here, apparent trends in mortality rates should be interpreted with caution. First, there may exist differences in the completeness of death reporting related to the length of time before the survey. Second, the accuracy of reports of age at death and of date of birth may deteriorate systematically with time. Thus, without a detailed evaluation of birth history data quality (which is not attempted in this report), conclusions regarding changes in mortality should be considered preliminary. Also, whenever possible, estimates from previous DHS surveys and external estimates should be sought and compared with the DHS estimates. However, the quality of the external estimates must also be taken into consideration.

For tables 8.1-8.5, rates based on 250 to 499 unweighted exposed persons should be shown in parentheses. Rates based on fewer than 250 unweighted exposed persons should not shown (*) and appropriate footnotes should be added to the tables if either or both of these cases exist. Rates are presented without any decimal points because of the relatively high sampling errors for the estimates.

If available, the most recent estimates from consecutive surveys give the most accurate picture of trends—rather than a series of estimates from the same survey because of the problem of birth transference (especially deceased births) in a single DHS survey. Some of these problems were discussed in more detail in Chapter 4 with reference to Table 4.3.1.

The following table, which displays data from three DHS surveys in Turkey, was used for the production of Figure 8.1. This figure is designed to present trends and therefore is only to be presented when the same type of data are available from earlier surveys. Data from the current survey can be taken from Table 8.1. The table below may be actually shown in addition to Figure 8.1 or may be omitted.

Turkey: mortality rates for the five years preceding the survey						
Survey	Approximate time period of estimated rates	Neonatal mortality	Post-neonatal mortality	Infant mortality	Child mortality	Under-five mortality
TDHS 2003	1998-2003	17	12	29	9	37
TDHS 1998	1993-1998	26	17	43	10	57
TDHS 1993	1988-1993	29	23	53	9	61

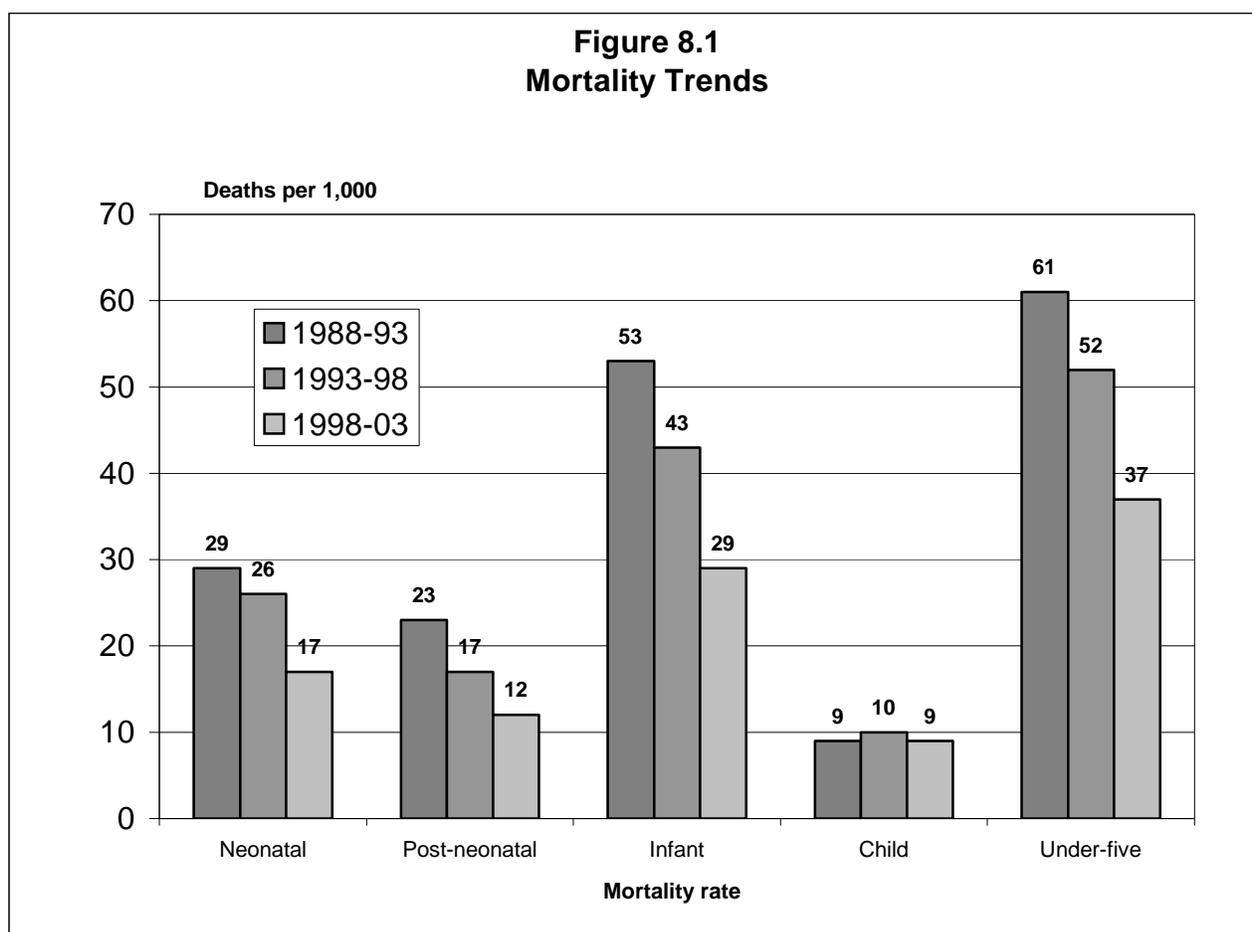


Table 8.2 Early childhood mortality rates by socioeconomic characteristics					
Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, [country, year]					
Background characteristic	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Mother's education					
No education					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
¹ Computed as the difference between the infant and neonatal mortality rates					

Due to large sampling errors, 10-year rates are computed for Tables 8.2 and 8.3.

Table 8.3 Early childhood mortality rates by demographic characteristics					
Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, [country, year]					
Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (i _{q0})	Child mortality (4 _{q1})	Under-five mortality (5 _{q0})
Sex of child					
Male					
Female					
Mother's age at birth					
<20					
20-29					
30-39					
40-49					
Birth order					
1					
2-3					
4-6					
7+					
Previous birth Interval²					
<2 years					
2 years					
3 years					
4+ years					
Birth size³					
Small/very small				na	na
Average or larger				na	na
na = Not applicable					
¹ Computed as the difference between the infant and neonatal mortality rates					
² Excludes first-order births					
³ Rates for the five-year period before the survey					

The pattern of mortality rates by demographic variables, which have been shown to be associated with the level of infant and child deaths, can be examined in this table.

Table 8.4 Perinatal mortality				
Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, [country, year]				
Background characteristic	Number of stillbirths ¹	Number of early neonatal deaths ²	Perinatal mortality rate ³	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20				
20-29				
30-39				
40-49				
Previous pregnancy interval in months				
First pregnancy				
<15				
15-26				
27-38				
39+				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Mother's education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total				
¹ Stillbirths are fetal deaths in pregnancies lasting seven or more months.				
² Early neonatal deaths are deaths at age 0-6 days among live-born children.				
³ The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.				

The distinction between a stillbirth and an early neonatal death is often a fine one, depending on observing and then recalling sometimes-faint signs of life following delivery. The causes of stillbirths and early neonatal deaths are closely linked, and just examining one or the other can understate the true level of mortality around delivery. For this reason deaths around delivery are combined into the perinatal mortality rate.

Information on stillbirths is available for the five years preceding the survey from the reproductive calendar section of the Woman's Questionnaire. Table 8.4 gives the level of perinatal mortality for the country as a whole and for selected demographic and socioeconomic characteristics. Note that information on perinatal mortality by pregnancy order is not presented in the table because pregnancy order cannot be computed from the information collected in the Woman's Questionnaire.

Table 8.5 High-risk fertility behavior			
Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, [country, year]			
Risk category	Births in the 5 years preceding the survey		Percentage of currently married women ¹
	Percentage of births	Risk ratio	
Not in any high-risk category		1.00	% ^a
Unavoidable risk category First-order births between ages 18 and 34			
Single high-risk category Mother's age <18 Mother's age >34 Birth interval <24 months Birth order >3			
Subtotal			
Multiple high-risk category Age <18 & birth interval <24 months ² Age >34 & birth interval <24 months Age >34 & birth order >3 Age >34 & birth interval <24 months & birth order >3 Birth interval <24 months & birth order >3			
Subtotal			
In any avoidable high-risk category			
Total	100.0	na	100.0
Number of births/women		na	
<p>Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births <i>not in any high-risk category</i>. na = Not applicable ¹Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher. ²Includes the category <i>age <18</i> and <i>birth order >3</i> ^aIncludes sterilized women</p>			

Table 8.5 presents the distribution of children born in the five years preceding the survey by category of increased risk of mortality due to the mother's fertility behavior characteristics: too young or too old at birth, too high a parity or too short a preceding birth interval. With regard to the last category, only children with a preceding interval of less than 24 months are included (rather than both a too short preceding and succeeding birth interval). Short succeeding birth intervals are not included, even though they can influence the survivorship of a child, because of the problem of reverse causality (i.e., a short succeeding birth interval can be the result of the death of a child rather than being the cause of the death of a child). Analysis beyond the scope of this report is required to disentangle one effect from the other.

First-order births may be at increased risk of dying relative to births of other orders; however, this distinction is not included in the risk categories in the table because it is not considered avoidable fertility behavior.

The table also presents the relative risk of dying (risk ratio) for children born in the five years preceding the survey by comparing the proportion dead in each risk category with the proportion dead among children with no risk factors.

In the final column, the table presents the distribution of currently married women by category of increased risk if they were to conceive at the time of the survey. Although many women are protected from pregnancy due to use of family planning, postpartum insusceptibility, and prolonged abstinence, for simplicity only those who have been sterilized are included in the not

in any high-risk category. The criteria for placing women into specific risk categories are adjusted to take into account the gestation time for an additional birth.

CHAPTER 9

REPRODUCTIVE HEALTH

This chapter presents findings from several areas of importance to reproductive and women's health, i.e. antenatal, delivery and postnatal care, general access to health services, use of tobacco products, exposure to injections and knowledge and attitudes concerning tuberculosis.

Information on antenatal, delivery and postnatal care is of great value in identifying subgroups of women who do not utilize such services, and is useful in planning for improvements in service delivery. Information on antenatal care is shown according to the number of ANC visits made, the stage of pregnancy at the time of the first visit, the type of provider and the specific services and information provided during antenatal visits, including whether tetanus toxoid was received. Similarly, delivery services are described according to the place of the delivery, the type of person assisting the delivery and the rate of caesarean section. Information on postnatal care is shown by whether a woman delivered in a health facility or elsewhere and describes the time since delivery of the first postnatal care and from whom it was received. This information helps identify population groups who are underserved with maternity care services.

Selected general health information for the woman is also presented in this chapter: access and barriers to use of health services for herself, tobacco use, and knowledge about tuberculosis.

Table 9.1 Antenatal care

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

Background characteristic	Doctor	Nurse/midwife	Auxiliary nurse/midwife	Community health worker	Other health worker	Traditional birth attendant	Other	No one	Missing	Total	Percentage receiving antenatal care from a skilled provider ¹	Number of women
Mother's age at birth												
<20										100.0		
20-34										100.0		
35-49										100.0		
Birth order												
1										100.0		
2-3										100.0		
4-5										100.0		
6+										100.0		
Residence												
Urban										100.0		
Rural										100.0		
Region												
Region 1										100.0		
Region 2										100.0		
Region 3										100.0		
Region 4										100.0		
Mother's education												
No education										100.0		
Primary										100.0		
Secondary										100.0		
More than secondary										100.0		
Wealth quintile												
Lowest										100.0		
Second										100.0		
Middle										100.0		
Fourth										100.0		
Highest										100.0		
Total										100.0		

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.

¹Skilled provider includes doctor, nurse, midwife and auxiliary nurse/midwife.

The objective of this tabulation is to determine the extent of utilization of different types of antenatal care providers. Women in the DHS surveys were asked whether they had seen anyone for antenatal care during the pregnancy for the last live birth occurring in the preceding five years. The interviewer was instructed to record all responses if more than one source of antenatal care was mentioned for the same pregnancy. However, for the purposes of this tabulation only the provider with the highest qualifications is considered if there is more than one response. The statistics in Tables 9.1, 9.2, 9.3 and 9.4 are presented in terms of women. The category 'Auxiliary nurse midwife' is shown separately instead of being aggregated with 'Nurse/midwife.'

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

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

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None			
1			
2-3			
4+			
Don't know/missing			
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care			
<4			
4-5			
6-7			
8+			
Don't know/missing			
Total	100.0	100.0	100.0
Number of women			
Median months pregnant at first visit (for those with ANC)			
Number of women with ANC			

Respondents were asked for the number of antenatal care visits they had during the pregnancy preceding the last live birth in the five years preceding the survey and for the number of months pregnant at the time of the first visit. The objective of this tabulation is to assess the number of antenatal visits pregnant women receive and to determine the stage of pregnancy when they first seek care in relation to national and international recommendations for antenatal care.

Table 9.3 Components of antenatal care

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

Background characteristic	Among women with a live birth in the last five years, the percentage who during the pregnancy of their last birth:		Number of women with a live birth in the last five years	Among women who received antenatal care for their most recent birth in the last five years, the percentage with the selected services:				Number of women with ANC for their most recent birth
	Took iron tablets or syrup	Took intestinal parasite drugs		Informed of signs of pregnancy complications	Weighted	Blood pressure measured	Urine sample taken	
Mother's age at birth								
<20								
20-34								
35-49								
Birth order								
1								
2-3								
4-5								
6+								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Mother's education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								

The content of antenatal care is important in judging its value. Certain items of care have been selected to be included in the questionnaire to indicate the level of the care required. Pregnancy complications are an important source of maternal and child mortality and morbidity, and thus both information on the signs of complications and tests for complications should be routinely included in antenatal care. Moreover, in many countries, neonatal tetanus, malaria and maternal anemia are major causes of neonatal mortality. The objective of this tabulation is to determine the extent of services given during antenatal care. DHS respondents who received antenatal care were asked whether they had received each service during at least one of the antenatal care visits. Height measurement is no longer in the Core Questionnaire

Additionally, the table provides information for all women (whether or not a woman saw anyone for antenatal care) on the receipt of iron supplements and intestinal parasite drugs during the pregnancy of the most recent birth in the five years preceding the survey. Intestinal parasite drugs comes from a new question, Q423.

Table 9.4 Tetanus toxoid injections

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

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last live birth was protected against neonatal tetanus ¹	Number of mothers
Mother's age at birth			
<20			
20-34			
35-49			
Birth order			
1			
2-3			
4-5			
6+			
Residence			
Urban			
Rural			
Region			
Region 1			
Region 2			
Region 3			
Region 4			
Mother's education			
No education			
Primary			
Secondary			
More than secondary			
Wealth quintile			
Lowest			
Second			
Middle			
Fourth			
Highest			
Total			
¹ Includes mothers with two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within ten years of the last live birth), or five or more injections prior to the last birth			

Table 9.4 is based on new questions in the Core Questionnaire (Q414 through Q420). Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, an important cause of infant death that is due primarily to unsanitary conditions at childbirth. Full protection is considered to be provided to an infant if the mother received two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within ten years of the last live birth), or five or more injections prior to the last birth.

Table 9.5 Place of delivery

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

Background characteristic	Health facility			Other	Missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector	Home					
Mother's age at birth								
<20						100.0		
20-34						100.0		
35-49						100.0		
Birth order								
1						100.0		
2-3						100.0		
4-5						100.0		
6+						100.0		
Antenatal care visits¹								
None						100.0		
1-3						100.0		
4+						100.0		
Don't know/missing						100.0		
Residence								
Urban						100.0		
Rural						100.0		
Region								
Region 1						100.0		
Region 2						100.0		
Region 3						100.0		
Region 4						100.0		
Mother's education								
No education						100.0		
Primary						100.0		
Secondary						100.0		
More than secondary						100.0		
Wealth quintile								
Lowest						100.0		
Second						100.0		
Middle						100.0		
Fourth						100.0		
Highest						100.0		
Total						100.0		

¹Includes only the most recent birth in the five years preceding the survey

Unlike antenatal care information, which was collected only for the last live birth, information on delivery care was collected for all births in the five years preceding the survey. As such, Tables 9.5 and 9.6 are organized around all births in the five years preceding the survey.

Table 9.5 documents the place of delivery by the background characteristics of respondents. Additionally, for the last live birth in the five years preceding the survey, the table indicates the place of delivery according to the number of antenatal care visits.

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and the percentage delivered by caesarian-section, according to background characteristics, [country, year]

Background characteristic	Person providing assistance during delivery								Total	Percentage delivered by a skilled provider ¹	Percentage delivered by C-section	Number of births
	Doctor	Nurse/ midwife	Auxiliary nurse/ midwife	Other health worker	Traditional birth attendant	Relative/ other	No one	Don't know/ missing				
Mother's age at birth												
<20									100.0			
20-34									100.0			
35-49									100.0			
Birth order												
1									100.0			
2-3									100.0			
4-5									100.0			
6+									100.0			
Place of delivery												
Health facility									100.0			
Elsewhere									100.0			
Residence												
Urban									100.0			
Rural									100.0			
Region												
Region 1									100.0			
Region 2									100.0			
Region 3									100.0			
Region 4									100.0			
Mother's education												
No education									100.0			
Primary									100.0			
Secondary									100.0			
More than secondary									100.0			
Wealth quintile												
Lowest									100.0			
Second									100.0			
Middle									100.0			
Fourth									100.0			
Highest									100.0			
Total									100.0			

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.
¹Skilled provider includes doctor, nurse, midwife and auxiliary nurse/midwife.

This table presents information on the type of assistance received during delivery and the relative frequency of delivery by C-section. As with antenatal care, the interviewer was instructed to record all responses if more than one person assisted during delivery. However, for the purposes of this tabulation, only the most highly qualified person is considered if the respondent reported more than one type of attendant at delivery. The category 'Auxiliary nurse midwife' is shown separately instead of being aggregated with 'Nurse/midwife.'

Table 9.7 Timing of first postnatal checkup

Among women giving birth in the five years preceding the survey, the percent distribution of the mother's first postnatal check-up for the last live birth by time after delivery, according to background characteristics, [country, year]

Background characteristic	Time after delivery of mother's first postnatal checkup					No check-up	Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/missing			
Mother's age at birth								
<20							100.0	
20-34							100.0	
35-49							100.0	
Birth order								
1							100.0	
2-3							100.0	
4-5							100.0	
6+							100.0	
Place of delivery								
Health facility							100.0	
Elsewhere							100.0	
Residence								
Urban							100.0	
Rural							100.0	
Region								
Region 1							100.0	
Region 2							100.0	
Region 3							100.0	
Region 4							100.0	
Mother's education								
No education							100.0	
Primary							100.0	
Secondary							100.0	
More than secondary							100.0	
Wealth quintile								
Lowest							100.0	
Second							100.0	
Middle							100.0	
Fourth							100.0	
Highest							100.0	
Total							100.0	

The table has been revised according to the new response categories in the DHS Core Questionnaire about the timing of postnatal care (Q440 and Q445.)

Table 9.8 Type of provider of first postnatal checkup

Among women giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check for the last live birth, according to background characteristics [country, year]

Background characteristic	Type of health provider of mother's first postnatal checkup							Total	Number of women
	Doctor/nurse/midwife	Auxiliary nurse/midwife	Community health worker	Other health worker	Traditional birth attendant	Don't know/missing	No check-up		
Mother's age at birth									
<20								100.0	
20-34								100.0	
35-49								100.0	
Birth order									
1								100.0	
2-3								100.0	
4-5								100.0	
6+								100.0	
Place of delivery									
Health facility								100.0	
Elsewhere								100.0	
Residence									
Urban								100.0	
Rural								100.0	
Region									
Region 1								100.0	
Region 2								100.0	
Region 3								100.0	
Region 4								100.0	
Mother's education									
No education								100.0	
Primary								100.0	
Secondary								100.0	
More than secondary								100.0	
Wealth quintile									
Lowest								100.0	
Second								100.0	
Middle								100.0	
Fourth								100.0	
Highest								100.0	
Total								100.0	

Table 9.9 Problems in accessing health care

Percentage of women who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, [country, year]

Background characteristic	Problems in accessing health care								At least one problem accessing health care	Number of women
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	Concern no provider available	Concern no drugs available		
Age										
15-19										
20-34										
35-49										
Number of living children										
0										
1-2										
3-4										
5+										
Marital status										
Never married										
Married or living together										
Divorced/ separated/ widowed										
Employed last 12 months										
Not employed										
Employed for cash										
Employed not for cash										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Education										
No education										
Primary										
Secondary										
More than secondary										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total										

Many factors can prevent women from getting medical advice or treatment for themselves. In DHS surveys, all women were asked if getting medical advice or treatment was a big problem in terms of each of the potential obstacles indicated in Table 9.9. The table provides information on women's perception of these eight potential problems as a barrier to obtaining health care. Note that answers to the question on getting permission to go for treatment do not necessarily refer to just the husband or family of the respondent but may include employer or health insurance company, for example.

CHAPTER 10

CHILD HEALTH

This chapter presents findings from several areas of importance to child health; characteristics of the neonate (birth weight and size at birth), vaccination status of children and important childhood illnesses and their treatment.

The information on birth weight and neonate's size assists in monitoring programs to decrease neonatal and infant mortality through a reduction in low birth weight infants.

The presentation of the vaccination coverage information focuses on the age group 12-23 months (or 18-29 months in countries where measles vaccination is not recommended in the first year of life). Overall coverage levels at the time of the survey and by 12 [18] months of age are shown for this age group. Additionally, the source of the vaccination information (whether based on a written vaccination card or on the mother's recall) is shown. Differences in vaccination coverage between different subgroups of the population are an aid in program planning.

Treatment practices and contact with health services among children with the three most important childhood illnesses (acute respiratory infection, fever and diarrhea) help in the assessment of national programs aimed at reducing the mortality impact of these illnesses. Information is provided on the prevalence and treatment of ARI and its treatment with antibiotics and the prevalence of fever and its treatment with antimalarial drugs and antibiotics. The treatment of diarrhea disease with oral rehydration therapy (including increased fluids) aids in the assessment of programs that recommend such treatment. Because appropriate sanitary practices can help prevent and reduce the severity of diarrheal disease, information is also provided on the manner of disposing of children's fecal matter.

Table 10.1 Child's weight and size at birth

Percent distribution of live births in the five years preceding the survey with a reported birth weight by birth weight; percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth and percentage of all births with a reported birth weight, according to background characteristics, [country, year]

Background characteristic	Percent distribution of births with a reported birth weight ¹			Number of births	Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth					
	Less than 2.5 kg	2.5 kg or more	Total			Very small	Smaller than average	Average or larger	Don't know/missing	Total	Number of all births
Mother's age at birth											
<20			100.0							100.0	
20-34			100.0							100.0	
35-49			100.0							100.0	
Birth order											
1			100.0							100.0	
2-3			100.0							100.0	
4-5			100.0							100.0	
6+			100.0							100.0	
Mother's smoking status											
Smokes cigarettes/tobacco			100.0							100.0	
Does not smoke			100.0							100.0	
Residence											
Urban			100.0							100.0	
Rural			100.0							100.0	
Region											
Region 1			100.0							100.0	
Region 2			100.0							100.0	
Region 3			100.0							100.0	
Region 4			100.0							100.0	
Mother's education											
No education			100.0							100.0	
Primary			100.0							100.0	
Secondary			100.0							100.0	
More than secondary			100.0							100.0	
Wealth quintile											
Lowest			100.0							100.0	
Second			100.0							100.0	
Middle			100.0							100.0	
Fourth			100.0							100.0	
Highest			100.0							100.0	
Total			100.0							100.0	

¹ Based on either a written record or the mother's recall

For births in the five years preceding the survey, birth weight was recorded in the questionnaire if available from either a written record or the mother's recall. Since birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was also obtained.

The purpose of this table is to show the percent of babies who had a low birth weight (less than 2.5 kg.) and the percent that were reported to be 'very small' or 'smaller than average' at birth. Tobacco is a known cause of lowered birth weight. While the use of tobacco is measured only at the time of the survey, it is very likely that mothers who currently smoke did so in the past as well.

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 [18-29] months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 [18] months of age, [country, year]

Source of information	BCG	DPT			Polio ¹			Measles	All basic vaccinations ²	No vaccinations	Number of children
		1	2	3	0	1	2				
Vaccinated at any time before the survey											
Vaccination card											
Mother's report											
Either source											
Vaccinated by 12 months of age ³											
¹ Polio 0 is the polio vaccination given at birth. ² BCG, measles and three doses each of DPT and polio vaccine excluding polio vaccine given at birth ³ For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.											

Note: In countries where it is recommended that the measles vaccination for children be given around 12-14 months of age, the age range in this table should be changed to 18-29 months and the last row of the table should be changed to "Vaccinated by 18 months of age".

The purpose of the table is to show vaccination coverage for children age 12 to 23 [18-29] months at the time of the survey and to show the source of the data (vaccination card or mother's report) used for determining vaccination coverage. The table also shows the percentage of children who had been vaccinated by 12 [18] months of age. This latter percentage is to ascertain the proportion of children who had been vaccinated at approximately the proper times.

The information on childhood immunizations was obtained for all the respondent's children under five years of age. Whenever a vaccination card was available, this served as the source of information. The respondent was asked to recall which vaccines the child had received a) if there was no written vaccination record, or b) if the vaccination was not recorded on the card. Mothers were specifically asked whether the child had received BCG, measles, DPT and polio vaccine, including the number of doses of polio and DPT vaccines.

Since children should have received all vaccinations and doses listed in this table during the first year of life (by age 15 months where measles vaccination is recommended to be given later), the age group 12-23 [18-29] months has been selected to show the proportion of children vaccinated at any time before the interview according to a vaccination or health card and the proportion whose mothers reported that the child had been given each of the vaccines. In the row labeled "Vaccination Card", the numerator is the number of children who received the specific vaccination or dose any time prior to the survey and whose mothers showed a card to the interviewer. In the row labeled "Mother's Report", the numerator is the number of children vaccinated according to the mother's report (i.e., whose mothers did not show a card to the interviewer). Those cases where a vaccination card was shown but the receipt of a vaccination was based on the mother's report or where the date is missing or inconsistent on the vaccination card are also included in the first row. In the row labeled "Either source", the numerator is the sum of the numerators of the preceding two rows. The numerator for the fourth row, "Vaccinated by 12 [18]months of age", is the percentage of the children vaccinated during the first year of life (0-11 months) [first year and half of life (0-17 months)] according to a vaccination card plus an estimate of the percentage vaccinated by 12 [18]months of age according to the mother's report (including cases where there was no date on the card or the specific vaccine was not recorded on the card). For children whose information is based on the mother's report, the proportion of vaccinations given during the first year [and a half] of life is assumed to be the same as for children with a written record of the date of vaccination.

The denominator for all the rows in the table is all children in the age group 12-23 [18-29] months. However, the number in the last column for rows one and two should be the number of children whose mothers showed a card or reported without showing a card, respectively.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 [18-29] months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, [country, year]

Background characteristic	BCG	DPT			Polio ¹			Measles	All basic vaccinations ²	No vaccinations	Percentage with a vaccination card seen	Number of children
		1	2	3	0	1	2					
Sex												
Male												
Female												
Birth order												
1												
2-3												
4-5												
6+												
Residence												
Urban												
Rural												
Region												
Region 1												
Region 2												
Region 3												
Region 4												
Mother's education												
No education												
Primary												
Secondary												
More than secondary												
Wealth quintile												
Lowest												
Second												
Middle												
Fourth												
Highest												
Total												

¹Polio 0 is the polio vaccination given at birth.

²BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

In countries where it is recommended that the measles vaccination for children be given around 12-14 months of age, the vaccinations rate should be calculated for ages 18-29 months, and the age range in the title of the table should be changed to 18-29 months.

This table shows the percentage of children who have a vaccination card that was shown to the interviewer, as well as the percentage of children given each vaccine or dose by the time of the survey, according to either a vaccination card or the mother's report. The purpose of this table is to examine the vaccination coverage levels among children age 12-23 [18-29] months by background characteristics in order to assess the success of the vaccination program in reaching all subgroups of the population.

Table 10.4 Vaccinations in the first year of life

Percentage of children age 12-59 months at the time of the survey who received specific vaccines by 12 [18] months of age, and percentage with a vaccination card, by current age of child, [country, year]

Age in months	BCG	DPT			Polio ¹			Measles	All basic vaccinations ²	No vaccinations	Percentage with a vaccination card seen	Number of children
		1	2	3	0	1	2					
12-23												
24-35												
36-47												
48-59												
12-59												

Note: Information was obtained from the vaccination card or if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccinations.
¹Polio 0 is the polio vaccination given at birth.
²BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

In countries where it is recommended that the measles vaccination for children be given around 12-14 months of age, the table titles should be changed to reflect vaccinations in the first 18 months of life and the age groups of children in the rows should be changed to 18-29, 30-41, 42-59, and 18-59.

This table should be used to assess trends in vaccination coverage only if coverage rates from a reliable earlier survey are not available. It is preferable to investigate trends in vaccination coverage for children of a fixed age interval (or by a specific age) with data from consecutive surveys. Figure 10.1 is an example of the preferable procedure for presenting trend information when data are available from earlier surveys.

Table 10.4 is based on children age 12 to 59 months, and shows the percentage of children who received specific vaccines or doses during the first year of life (according to a vaccination card or the mother's report) and the percentage of children with a vaccination card. This table illustrates changes in the vaccination program over time.

The method of estimating the vaccination coverage by 12 months of age is the same as that described for Table 10.2. For children without a vaccination card, the proportion vaccinated during the first year of life is estimated separately for each age group. 'No vaccinations' indicates the percentage of children who did not receive a single vaccination by 12 months of age.

Figure 10.1
Trends in Vaccination Coverage during the First Year of Life
Among Children 12-23 Months

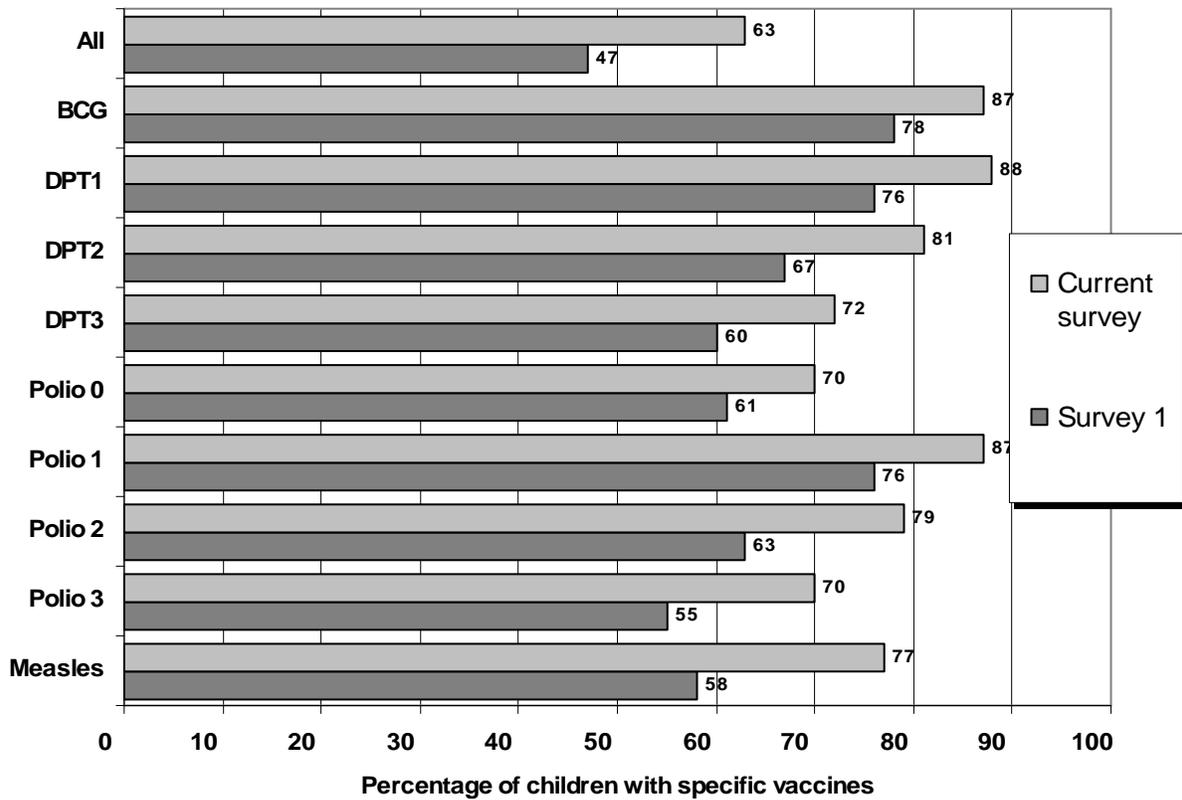


Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection; (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage who received specific treatments, according to background characteristics, [country, year]

Background characteristic	Among children under age five:		Among children under age five with symptoms of ARI:		
	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom treatment was sought from a health facility or provider ²	Percentage who received antibiotics	Number of children
Age in months					
<6					
6-11					
12-23					
24-35					
36-47					
48-59					
Sex					
Male					
Female					
Mother's smoking status					
Smokes cigarettes/tobacco					
Does not smoke					
Cooking fuel					
Electricity or gas					
Kerosene					
Coal/lignite					
Charcoal					
Wood/straw ³					
Animal dung					
Other fuel					
No food cooked in household					
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Mother's education					
No education					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
Total					

¹Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) is considered a proxy for pneumonia
²Excludes pharmacy, shop, and traditional practitioner
³Includes grass, shrubs, crop residues

Table 10.5 shows the prevalence of symptoms of a recent episode of ARI (cough accompanied by short, rapid breathing which was chest-related). Acute lower respiratory tract infection, primarily pneumonia, is a common cause of illness and death during infancy and childhood. Early diagnosis and treatment with antibiotics can prevent a large proportion of these ARI/pneumonia deaths. However, the reported treatment with antibiotics depends on the mother's ability to identify the drugs as antibiotics and may have a substantial margin of error. This table includes mother's smoking status and cooking fuel, factors known to be associated with ARI, as background characteristics.

The DHS data can be used to obtain period-prevalence estimates for ARI: the percentage of children under five years whose mothers report that the children had acute respiratory infection in a two-week period before the interview. This measure is affected by the reliability of the mother's recall as to when the ARI episode occurred.

Since the number of cases of ARI varies seasonally, the time of year that survey fieldwork is conducted must be considered when interpreting the findings.

Table 10.6 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs and the percentage who took antibiotic drugs, by background characteristics, [country, year]

Background characteristic	Among children under age five:		Among children under age five with fever:			
	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider ¹	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6						
6-11						
12-23						
24-35						
36-47						
48-59						
Sex						
Male						
Female						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Mother's education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

¹Excludes pharmacy, shop, and traditional practitioner

This table shows the percentage of children less than five years of age who had fever in the two weeks preceding the survey. Fever is a manifestation of malaria, and it also accompanies various other illnesses. Malaria and fever contribute to high levels of malnutrition and high mortality. While fever can occur year-round, malaria is more prevalent during rainy seasons. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence.

The table also reports the types of drugs given to children with fever. Since malaria is an important contributory cause of death in infancy and childhood in many developing countries, so-called presumptive treatment of fever with anti-malarial medication is advocated in many countries where malaria is endemic.

Table 10.6 contains some information (prevalence of fever and taking of antimalarial drugs) which also appears in Table 12.5 (Malaria Chapter) when the Malaria Module is included in the survey questionnaire. Nevertheless, it is recommended that Table 10.6 includes that information even when the Malaria Chapter is presented in the report. The rationale for this is that the basic information on treatment of children with ARI, diarrhea and fever will be in the same chapter in all reports.

The DHS data can be used to obtain period-prevalence estimates for fever: the percentage of children under five years whose mothers report that the children had a fever in a two-week period before the interview. This measure is affected by the reliability of the mother's recall as to when the fever episode occurred.

Since the number of cases of febrile illness varies seasonally, the time of year that survey fieldwork was conducted must be considered when interpreting the findings, even where malaria is not present.

<u>Table 10.7 Availability at home of antimalarial drugs taken by children</u>			
Among children under age five who had fever in the two weeks preceding the survey, the percentage who took specific antimalarial drugs and, among children who took specific drugs, the percentage for whom the drug was at home when the child became ill with fever, [country, year]			
Drug	Percentage who took specific antimalarial drugs ¹	Percentage for whom drug was at home when child became ill with fever	Number of children who took a specific antimalarial drug
SP/Fansidar			
Chloroquine			
Amodiaquine			
Quinine			
ACT			
Other antimalarial			
Any antimalarial drug			
¹ XXX children had fever in the two weeks preceding the survey			

If the Malaria Module is included in the survey questionnaire, this table should be omitted in favor of Table 12.7 of the Malaria Chapter.

Table 10.8 Prevalence of diarrhea			
Percentage of children under age five who had diarrhea in the two weeks preceding the survey, by background characteristics, [country, year]			
Background characteristic	Diarrhea in the two weeks preceding the survey		Number of children
	All diarrhea	Diarrhea with blood	
Age in months			
<6			
6-11			
12-23			
24-35			
36-47			
48-59			
Sex			
Male			
Female			
Source of drinking water¹			
Improved			
Not improved			
Toilet facility²			
Improved, not shared			
Non-improved			
Residence			
Urban			
Rural			
Region			
Region 1			
Region 2			
Region 3			
Region 4			
Mother's education			
No education			
Primary			
Secondary			
More than secondary			
Wealth quintile			
Lowest			
Second			
Middle			
Fourth			
Highest			
Total			
¹ See Table 2.7 for definition of categories			
² See Table 2.8 for definition of categories			

The purpose of this table is to show the prevalence of diarrhea in the two weeks preceding the survey among children less than five years of age. In many countries, dehydration from watery diarrhea is a major cause of death in infancy and childhood, and the condition is amenable to treatment by oral rehydration therapy. This combination of high cause-specific mortality and the existence of effective treatment make diarrhea and its treatment a priority concern for health services. Diarrhea with blood in the stools is indicative of cholera or other specific disease and needs to be treated somewhat differently than diarrhea without blood.

The DHS data can be used to obtain period-prevalence estimates for diarrhea: the percentage of children under five years whose mothers report that the children had diarrhea in a two-week period before the interview. This measure is affected by the reliability of the mother's recall as to when the diarrheal episode occurred.

Since the number of cases of diarrhea varies seasonally, the time of year that survey fieldwork was conducted must be considered when interpreting the findings.

Table 10.9 Diarrhea treatment

Among children under age five who had diarrhea in the two weeks preceding the survey, the percentage who were taken for treatment to a health provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, [country, year]

Background characteristic	Percentage of children with diarrhea taken to a health provider ¹	Oral rehydration therapy (ORT)					Other treatments					Number of children with diarrhea
		ORS packets or pre-packaged liquid	Recommended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Anti-biotic drugs	Anti-motility drugs	Zinc supplements	Intra-venous solution	Home remedy/ other	
Age in months												
	<6											
	6-11											
	12-23											
	24-35											
	36-47											
	48-59											
Sex												
	Male											
	Female											
Type of diarrhea												
	Non bloody											
	Bloody											
Residence												
	Urban											
	Rural											
Region												
	Region 1											
	Region 2											
	Region 3											
	Region 4											
Mother's education												
	No education											
	Primary											
	Secondary											
	More than secondary											
Wealth quintile												
	Lowest											
	Second											
	Middle											
	Fourth											
	Highest											
Total												

Note: ORT includes solution prepared from oral rehydration salt (ORS), pre-packaged ORS packet, and recommended home fluids (RHF).

¹Excludes pharmacy, shop and traditional practitioner

This table provides information on seeking of medical care, oral rehydration therapy and drug treatment for diarrheal episodes in the two weeks preceding the survey. The table shows the percentage of children with diarrhea in the two weeks preceding the survey who received various treatments.

Table 10.10 Feeding practices during diarrhea

Percent distribution of children under age five who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children given ORT or increased fluids and continued feeding during the episode of diarrhea, by background characteristics [country, year]

Background characteristic	Amount of liquids given						Amount of food given						Percentage given increased fluids and continued feeding ^{1,2}	Percentage given ORT or increased fluids and continued feeding ¹	Number of children with diarrhea	
	More	Same as usual	Some-what less	Much less	None	Don't know	Total	More	Same as usual	Some-what less	Much less	None				Don't know
Age in months																
<6							100.0									100.0
6-11							100.0									100.0
12-23							100.0									100.0
24-35							100.0									100.0
36-47							100.0									100.0
48-59							100.0									100.0
Sex							100.0									100.0
Male							100.0									100.0
Female							100.0									100.0
Type of diarrhea							100.0									100.0
Non bloody							100.0									100.0
Bloody							100.0									100.0
Residence							100.0									100.0
Urban							100.0									100.0
Rural							100.0									100.0
Region							100.0									100.0
Region 1							100.0									100.0
Region 2							100.0									100.0
Region 3							100.0									100.0
Region 4							100.0									100.0
Mother's education							100.0									100.0
No education							100.0									100.0
Primary							100.0									100.0
Secondary							100.0									100.0
More than secondary							100.0									100.0
Wealth quintile							100.0									100.0
Lowest							100.0									100.0
Second							100.0									100.0
Middle							100.0									100.0
Fourth							100.0									100.0
Highest							100.0									100.0
Total							100.0									100.0

¹Equivalent to the UNICEF/WHO indicator "Home management of diarrhea."

²Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhea episode

It is recommended that children should be given more liquids to drink during diarrhea and food should not be reduced.

Table 10.11 Knowledge of ORS packets or pre-packaged liquids

Percentage of mothers age 15-49 who gave birth in the five years preceding the survey who know about ORS packets or ORS pre-packaged liquids for treatment of diarrhea by background characteristics, [country, year]

Background characteristic	Percentage of women who know about ORS packets or ORS pre-packaged liquids	Number of women
Age		
15-19		
20-24		
25-34		
35-49		
Residence		
Urban		
Rural		
Region		
Region 1		
Region 2		
Region 3		
Region 4		
Education		
No education		
Primary		
Secondary		
More than secondary		
Wealth quintile		
Lowest		
Second		
Middle		
Fourth		
Highest		
Total		
ORS = Oral rehydration salts		

Table 10.12 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, [country, year]

Background characteristic	Manner of disposal of children's stools:							Total	Percentage of children whose stools are disposed of safely	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Don't know/missing			
Age of child in months										
<6								100.0		
6-11								100.0		
12-17								100.0		
18-23								100.0		
24-35								100.0		
35-59								100.0		
Toilet facility										
Improved, not shared ¹								100.0		
Non-improved or shared								100.0		
Residence										
Urban								100.0		
Rural								100.0		
Region										
Region 1								100.0		
Region 2								100.0		
Region 3								100.0		
Region 4								100.0		
Mother's Education										
No education								100.0		
Primary								100.0		
Secondary								100.0		
More than secondary								100.0		
Wealth quintile										
Lowest								100.0		
Second								100.0		
Middle								100.0		
Fourth								100.0		
Highest								100.0		
Total								100.0		

¹ Non-shared facilities that are of the types: flush or pour flush into a piped sewer system/septic tank/pit latrine; ventilated, improved pit (VIP) latrine; pit latrine with a slab; and a composting toilet.

The proper disposal of children's feces is important in preventing the spread of disease. If feces are left uncontained, disease may be spread by direct contact or through animal contact. The safe disposal of children's feces is of particular importance because children's feces are more likely to be the cause of fecal contamination to the household environment than other causes as they are often not disposed of properly and may be mistakenly considered less harmful than adult feces. The table presents information on the disposal of young children's most recent stools, by background characteristics.

The revised response categories of Q571 are those proposed by WHO, UNICEF and JMP (see page 12 of Guide for Water Supply, Sanitation and Hygiene Related Household Survey Questions, dated October 2004, by WHO, UNICEF and Joint Monitoring Programme for Water Supply and Sanitation).

CHAPTER 11

NUTRITION OF CHILDREN AND ADULTS

This chapter covers nutritional concerns for children and adults. The section on children covers the following related topics: anthropometric assessment of the nutritional status of children under five years of age; infant and young child feeding practices, including breastfeeding and feeding with solid/semi-solid foods; diversity of foods fed; frequency of feeding; and micronutrient status, supplementation and fortification. The section on adults covers: nutritional status of women and men 15 to 49 years of age; the diversity of foods eaten by mothers of children under three years; and micronutrient status, supplementation and fortification.

Anthropometric indicators for young children and for adults provide outcome measures of nutritional status. Marked differences, especially in regard to height-for-age and weight-for-age are often seen between different subgroups of children within a country. A adult's nutritional status has important implications for the health status of the adult her/himself as well as that of the children that women may bear.

Adequate nutrition is critical to child development. The period from birth to two years of age is important to optimal growth, health and development. This period is one marked for growth faltering, micronutrient deficiencies, and common childhood illnesses, such as diarrhea and acute respiratory infections (ARI). Optimal feeding practices reported in this chapter include early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at six months of age, frequency of feeding solid/semi solid foods, and the diversity of food groups fed to children between 6 and 23 months of age. A summary indicator of feeding practices that describes the quality of infant and young child (age 6-23 months) feeding practices (IYCF) is included.

Malnutrition in adults results in reduced productivity, an increased susceptibility to infections, retarded recovery from illness, and for women, heightened risks of adverse pregnancy outcomes. Moreover, a woman who has poor nutritional status as indicated by a low Body Mass Index (BMI), short stature, anemia, or other micronutrient deficiency has a greater risk of obstructed labor, of having a baby with a low birth weight, of producing lower quality breastmilk, of mortality due to postpartum hemorrhage, and of morbidity of both herself and her baby.

Micronutrient deficiencies are a result of inadequate intake of micronutrient-rich foods and the inadequate utilization of available micronutrients in the diet due to infections, parasitic infestations, and other dietary factors. Measures of micronutrient status (anemia and nightblindness), consumption of vitamin-A rich and iron-rich foods, micronutrient supplementation for iron and vitamin A, and micronutrient fortification (iodized or iodated household cooking salt) are included in this chapter for both women and children. In addition to information on consumption of micronutrient supplements and access to iodized salt in the household, this chapter will discuss the diversity of food groups consumed by mothers who gave birth in the last three years, providing important information on maternal eating patterns (for example, vitamin A-rich foods).

Table 11.1 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, [country, year]

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percent-age below -3 SD	Percent-age below -2 SD ¹	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD ¹	Percent-age above +2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD ¹	Percent-age above +2 SD	Mean Z-score (SD)	
Age in months												
<6												
6-8												
9-11												
12-17												
18-23												
24-35												
36-47												
48-59												
Sex												
Male												
Female												
Birth interval in months²												
First birth ³												
<24												
24-47												
48+												
Size at birth²												
Very small												
Small												
Average or larger												
Mother's interview status												
Interviewed												
Not interviewed, but in household												
Not interviewed, and not in the household ⁴												
Mother's nutritional status⁵												
Thin (BMI<18.5)												
Normal (BMI 18.5-24.9)												
Overweight/obese (BMI≥ 25)												
Residence												
Urban												
Rural												
Region												
Region 1												
Region 2												
Region 3												
Region 4												
Mother's education⁶												
No education												
Primary												
Secondary												
More than secondary												
Wealth quintile												
Lowest												
Second												
Middle												
Fourth												
Highest												
Total												

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.

Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

¹Includes children who are below -3 standard deviations (SD) from the International Reference Population median

²Excludes children whose mothers were not interviewed

³First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

⁴Includes children whose mothers are deceased

⁵Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.

⁶For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

NOTE TO COUNTRY MANAGERS: IN OUTPUT FROM DATA PROCESSING, PARENTHESES AROUND MEAN Z-SCORES INDICATE Z-SCORES THAT FALL BELOW ZERO.. CHANGE PARENTHESES TO NEGATIVE SIGNS.

Nutritional status, along with mortality rates, represents an outcome measure. Marked differences, especially with regard to height-for-age and weight-for-age are often seen between different subgroups within a country. It is also important to point out that there is often a marked worsening in nutritional status during the first year of life. One of the major contributions of the DHS surveys to the study of child health status is the anthropometric data collected for all children under five years of age. Both height (length) and weight measurements are obtained for each child. Employing this information, the following standard indices are used to describe the nutritional status of children:

Height-for-age
 Weight-for-height
 Weight-for-age

The anthropometric results are influenced by the quality of the height and weight measurements on which they are based. Any evidence that the measurements may be systematically biased should be mentioned in the report. Two of the indices (height-for-age and weight-for-age) are also influenced by the accuracy of the reporting of the child's age. Patterns of age heaping should be examined to determine any possible effect on the indices.

In presenting the anthropometric results, the nutritional status of children in the survey population is compared with the WHO Child Growth standards¹ that are based on an international sample (from Brazil, Ghana, India, Norway, Oman and the USA) of ethnically, culturally and genetically diverse, healthy children living under optimum conditions conducive to achieving a child's full genetic growth potential. The use of the WHO Child Growth Standards over the previously used NCHS/CDC/WHO reference is due to the prescriptive rather than descriptive nature of the WHO standard versus the NCHS reference. The WHO Child Growth Standards identifies the breastfed child as the normative model for growth and development and documents how children should grow under optimum conditions and infant feeding and child health practices.

The use of the WHO Child Growth Standards is based on the finding that well-nourished children of all population groups for which data exist follow very similar growth patterns before puberty. The internationally-based standard population serves as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time.

In any large population, there are natural variations in height and weight. These variations approximate a normal distribution with the following percentages found in each standard deviation category:

Malnutrition classification: Standard deviations from the median of the NCHS/WHO/CDC reference population

	Severe -3.01 or below	Moderate -2.01 to -3.00	Mild -1.01 to -2.00	-1.00 to +1.00	+1.01 to +2.00	Over nourished +2.01 or above	Total
Expected percentage	0.1	2.2	13.6	68.2	13.6	2.3	100.0

In assessing the results in Table 11.1, attention should be focused on the percentage of the DHS survey population that falls into the category of more than two standard deviations below or above the median of the reference population. The extent to which children falling into these categories exceeds 2.3 percent (the expected percentage in a well nourished population) indicates the level of specific aspects of malnutrition in the population. The percentage of children who are severely malnourished, i.e., who fall more than three standard deviations below the reference population median, is also shown.

1 WHO Multicentre Growth Reference Study Group. 2006. WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva. World Health Organization.

Prevalence (percentage) range used by WHO to categorize the public health significance of different measures of undernutrition (< -2 SD):

	Height-for-age (Stunted)	Weight-for-height (Wasted)	Weight-for-age (Underweight)
Low	<20	<5	<10
Medium	20-29	5-9	10-19
High	30-39	10-14	20-29
Very High	40+	15+_	30+

It should be noted that the above categorization is not based on correlations with functional outcomes and simply reflects a convenient statistical grouping of prevalence levels from different countries (Physical Status: The use and interpretation of anthropometry, WHO Technical Report Series 1995).

The height-for-age index presented in Table 11.1 provides an indicator of linear growth retardation among children. Children who are less than two standard deviations below the median of the WHO standard population in terms of height-for-age may be considered short for their age ("stunted") or chronically malnourished. Severe linear growth retardation ("stunting") reflects the outcome of a failure to receive adequate nutrition over a number of years and is also affected by recurrent and chronic illness. Height-for-age, therefore, represents a measure of the long-term effects of malnutrition in a population and does not vary appreciably according to the season of data collection. Stunted children are not immediately obvious in a population. For example, a stunted three-year-old child could look like a well-fed two-year old. It should be noted that throughout childhood, stunting will be greater using the new WHO standards compared to the old NCHS/CDC/WHO reference.

The weight-for-height index looks at body mass in relation to body length. Children who are less than two standard deviations below the median of the reference population in terms of their weight-for-height may be considered too thin ("wasted"), i.e., acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately before the survey and may be the result of recent illness episodes, especially diarrhea, or of seasonal variations in food supply. The difference between the new WHO standards and the old reference is that wasting will be substantially higher (up to about 70 cm length) during infancy using the new standards.

Weight-for-age takes into account both chronic and acute malnutrition and is often used to monitor nutritional status on a longitudinal basis. It is presented in DHS reports to allow comparison with the results of studies or clinic-based monitoring efforts that employ the weight-for-age measure. Similar to weight-for-height, this index is subject to seasonal variation. The use of the new WHO standards will result in substantial increases in underweight during the first half of infancy (0-6 months) and a decrease thereafter when compared to the old reference.

Overweight and obesity are becoming problems for some children in developing countries. The percentage of children more than two standard deviations above the median for weight-for-height indicates the level of this potential problem. The WHO standards will result in a greater prevalence of overweight that will vary by age, sex and nutritional status of the index population. The percentage of children more than two standard deviations above the median for weight-for-age is included here in order to compare with other data sources that did not measure height. Children who are more than two standard deviations above the median for height-for-age are overly tall. However since being overly tall is not considered a health problem, the percentages are not shown here.

The percentage of children not measured should be mentioned in the text. Data processing will prepare a working table to show missing information. The age groups 6-8, 9-11, 12-17, 18-23 and 24-35 are included in conformance with the age groups for which there are infant and young child feeding recommendations and if there are too few cases, can be combined as follows (<6, 6-11, 12-23, 24+ months).

Tabulation for Figure 11.1 on nutritional status of children, not to be shown as a table in the report:

Nutritional status of children by age [Line graph only]

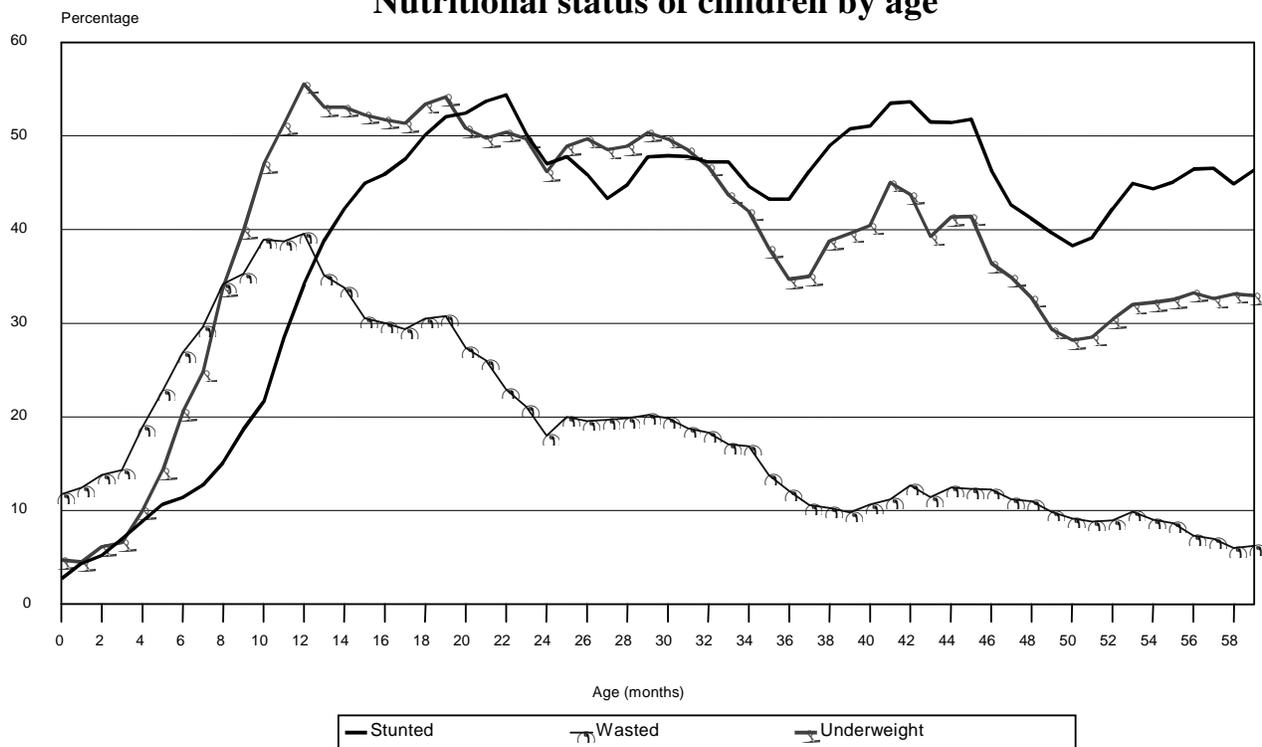
Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by child's age in months, smoothed by a five-month moving average,[country, year]

Age in months	Height-for-age	Weight-for-height	Weight-for-age	Number of children
	Percentage below -2 SD ¹	Percentage below -2 SD ¹	Percentage below -2 SD ¹	
0				
1				
2				
3				
.				
.				
59				

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards

¹ Includes children who are below -3 standard deviations from the WHO Child Growth Standards median

Figure 11.1
Nutritional status of children by age

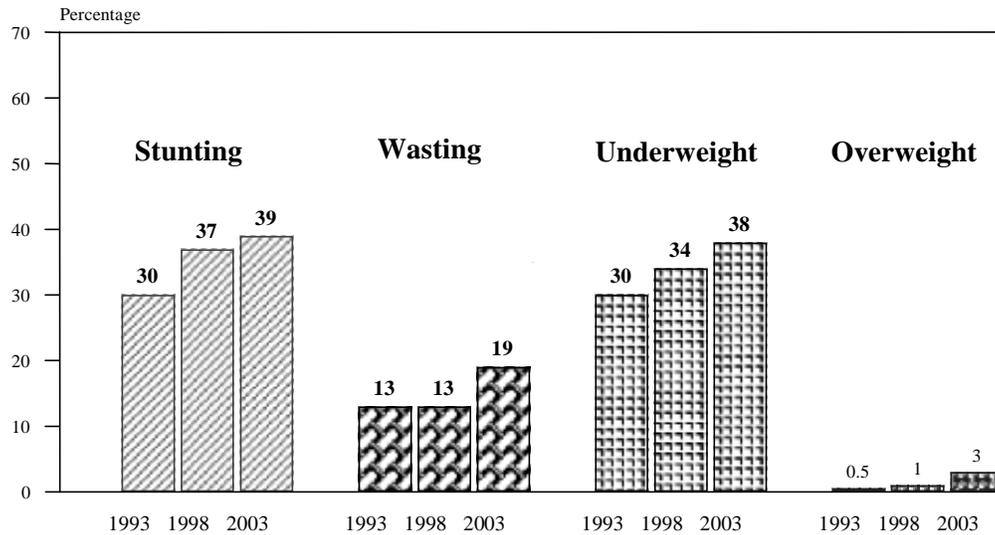


Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both. Plotted values are smoothed by a 5-month moving average.

Source: Country and year

Figure 11.2

Trends in Nutritional Status of Children under Five Years



Note: *Stunting* reflects chronic malnutrition; *Wasting* reflects acute malnutrition; *Underweight* reflects chronic or acute malnutrition or a combination of both.

In order to make comparisons across survey years meaningful, anthropometric data from prior years will have to be reanalyzed using the new WHO Child Growth Standards. In addition, since data from prior surveys are based on children whose mothers were interviewed, only years in which data are comparable should be included in this figure, e.g., most recent survey years in which all children were included. If all survey years are included, a footnote should be added noting that the chart is based only on children whose mothers were interviewed.

Table 11.2 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and for the last children born in the five years preceding the survey ever breastfed, the percentage who started breastfeeding within one hour and within one day of birth and the percentage who received a prelacteal feed, by background characteristics, [country, year]

Background characteristic	Breastfeeding among children born in last five years		Among last-born children ever breastfed:			Number of last-born children ever breastfed
	Percentage of children ever breastfed	Number of children born in last five years	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth ¹	Percentage who received a prelacteal feed ²	
Sex						
Male						
Female						
Assistance at delivery						
Health personnel ³						
Traditional birth attendant						
Other						
No one						
Place of delivery						
Health facility						
At home						
Other						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Mother's education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

Note: Table is based on children born in the five years preceding the survey regardless of whether the children are living or dead at the time of interview.

¹Includes children who started breastfeeding within one hour of birth

²Children given something other than breast milk during the first three days of life.

³Doctor, nurse/midwife, or auxiliary midwife

Tables 11.2 through 11.6 describe infant and young child feeding (IYCF) practices. Early breastfeeding practices determine the successful establishment and duration of breastfeeding. It is recommended that children be put to the breast immediately or within one hour after birth. During the first three days after delivery, colostrum, an important source of nutrition and protection to the newborn, is produced and should be given to the newborn while awaiting the production of regular breastmilk. Footnote 3 should be modified for each country.

Table 11.2 shows the percentage of all children born in the last five years who ever breastfed and the percentage of last children born in the five years preceding the survey who started initial breastfeeding within 1 hour or 1 day of birth and those who were given a prelacteal feed (anything other than breast milk before breast milk was regularly given). Characteristics of

the infant and mother, type of delivery attendant and place of delivery may have important influences on these early breastfeeding practices.

Tabulation for Figure 11.3 on prelacteal liquids [not to be shown as a table in the report]

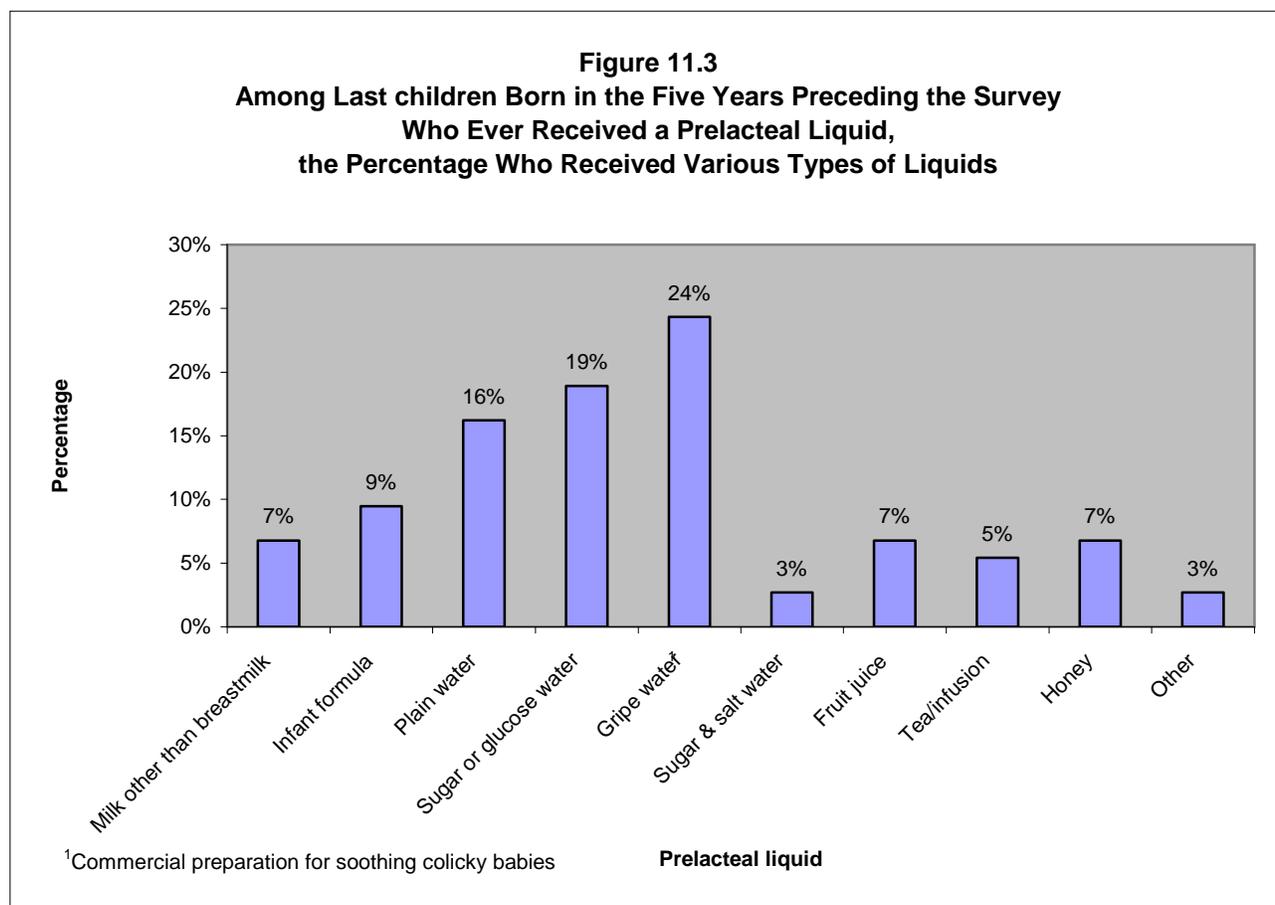
Prelacteal liquids

Among last children born in the five years preceding the survey who received a prelacteal liquid, the percentage who received various types of prelacteal liquids, [country, year]

	Milk other than breast-milk	Infant formula	Plain water	Sugar-or glucose-water	Gripe water ¹	Sugar-salt-water solution	Fruit juice	Tea/Infusions	Honey	Other	Number of children
Total											

¹ Commercial preparation for soothing colicky babies

Figure 11.3 should be included in the report only in countries where prelacteal feeding is above 25 percent for Total in Table 11.2.



Because children may receive more than one type of prelacteal liquid, a footnote pointing out that the percentages do not add up to 100.0 should be added.

Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under three years who are living with their mother, by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, [country, year]

Age in months	Percent distribution of youngest children under three living with their mother by breastfeeding status							Percentage currently breast-feeding	Number of youngest children under three years	Percentage using a bottle with a nipple ¹	Number of all children under three years
	Breastfeeding and consuming:						Total				
	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/juice	Other milk	Complementary foods					
0-1							100.0				
2-3							100.0				
4-5							100.0				
6-8							100.0				
9-11							100.0				
12-17							100.0				
18-23							100.0				
24-35							100.0				
0-3							100.0				
0-5							100.0				
6-9							100.0				
12-15							100.0				
12-23							100.0				
20-23							100.0				

Note: Breastfeeding status refers to a “24-hour” period (yesterday and last night). Children who are classified as *breastfeeding and consuming plain water only* consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

¹Based on all children under three years

UNICEF and WHO recommend that children be exclusively breastfed (no other complementary liquid or solid food or plain water) during the first 6 months of life and that children be given solid/semisolid complementary food in addition to continued breastfeeding beginning with when the child is six months old. Note that previous surveys used children age 6-9 months for the indicator of timely complementary feeding. That indicator is no longer current. It is also recommended that breastfeeding be continued throughout the second year of life. Use of bottles with nipples is not recommended at any age.

The data for all children by two-month age groups can be graphed in an area graph with age on the horizontal axis and the various feeding categories shown as distinct areas that sum to 100 percent (Figure 11.4).

Figure 11.4
Infant Feeding Practices by Age

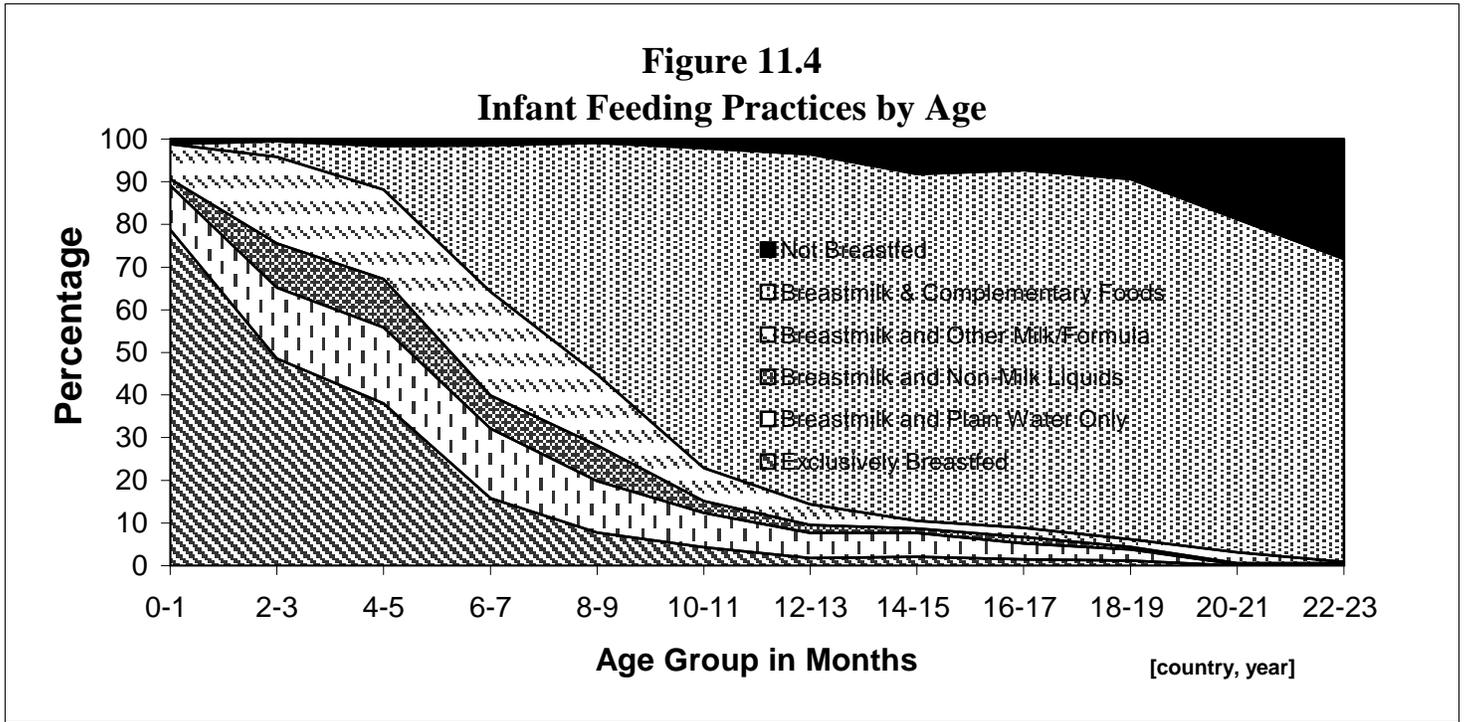


Figure 11.5
Trends in Infant Feeding Practices for Children 0-5 and 6-8 Months

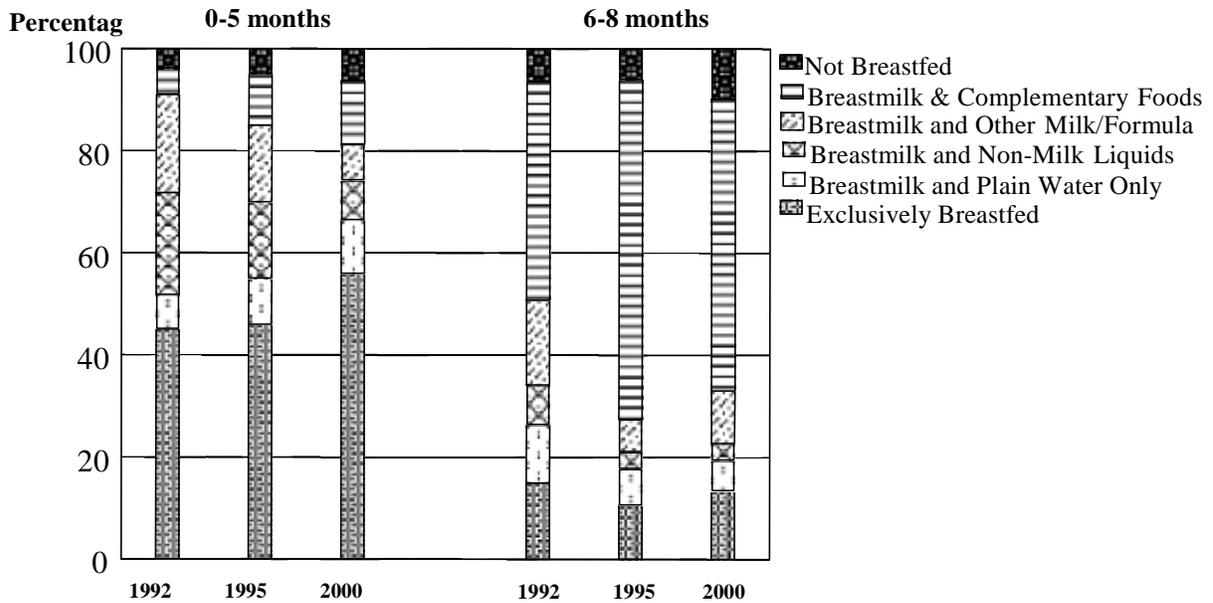


Table 11.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under six months of age living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, [country, year]

Background characteristic	Median duration (months) of breastfeeding among children born in the last three years ¹			Frequency of breastfeeding among children under six months of age ²			
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding ₃	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex							
Male							
Female							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Mother's education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							
Mean for all children				na	na	na	na

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey.
na = Not applicable
¹It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding
²Excludes children without a valid answer on the number of times breastfed
³Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

Estimates of means and medians are based on the current status proportions at each time since birth (duration) group. Non-surviving children are included. The distributions of the proportion of births by the month of birth of the child are analogous to the lx column of the synthetic life table. For purposes of providing some stability to the proportions, the birth data should be grouped in two or three month intervals. The lx values should decline with duration but small sample sizes may cause some irregularity.

Before estimating the median, the distribution is smoothed by a moving average of three age groups. The first age (duration) for which the proportion falls below 0.50 is used for the calculation of the median by linear interpolation between that age group and the next youngest group. The width of the first interval will be taken to be 1.50 months (using 0.50 months for children born in the month of interview).

Estimation of the mean durations will be done using the current status proportions by summing the product of the proportion (not in percents) and width of the age (duration) interval. To this sum will be added one half the width of the lowest duration interval (i.e., 0.75).

Table 11.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under three years of age who are living with the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, [country, year]

Age in months	Liquids			Solid or semi-solid foods										Number of children	
	Infant formula	Other milk ¹	Other liquids ²	Fortified baby foods	Foods made from grains ³	Fruits & vegetables rich in vitamin A ⁴	Other fruits and vegetables	Foods made from roots and tubers	Foods made from legumes and nuts	Meat, fish, poultry, and eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Foods made with oil, fat, or butter		Sugary foods
BREASTFEEDING CHILDREN															
0-1															
2-3															
4-5															
6-8															
9-11															
12-17															
18-23															
24-35															
6-23															
Total															
NONBREASTFEEDING CHILDREN															
0-1															
2-3															
4-5															
6-8															
9-11															
12-17															
18-23															
24-35															
6-23															
Total															
<p>Note: Breastfeeding status and food consumed refer to a “24-hour” period (yesterday and last night). ¹ Other milk includes fresh, tinned and powdered animal milk ² Does not include plain water ³ Includes fortified baby food ⁴ Includes [list fruits and vegetables included in the questionnaire such as pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A]</p>															

The percentages of children consuming indicated liquids and food are not exclusive. If age categories are to be collapsed due to small numbers of cases, it is recommended that they be aggregated into age groups such as < 6, 6-11, 12-23, and 24-35.

Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF practices based on breastfeeding status, number of food groups and times they are fed during the day or night preceding the survey, by background characteristics, [country, year]

Background characteristic	Among breastfed children 6-23 months, percentage fed:			Number of breastfed children 6-23 months	Among non-breastfed children 6-23 months, percentage fed:			Number of non-breastfed children 6-23 months	Among all children 6-23 months, percentage fed:				Number of all children 6-23 months
	3+ food groups ¹	Minimum times or more ²	Both 3+ food groups and minimum times or more		Milk or milk products ³	4+ food groups	4+ times or more		With 3 IYCF practices ⁴	Breastmilk. milk or milk products ³	3+ or 4+ food groups ⁵	Minimum times or more ⁶	
Age in months													
6-8													
9-11													
12-17													
18-23													
Sex													
Male													
Female													
Residence													
Urban													
Rural													
Region													
Region 1													
Region 2													
Region 3													
Region 4													
Mother's education													
None													
Primary													
Secondary													
More than secondary													
Wealth quintile													
Lowest													
Second													
Middle													
Fourth													
Highest													
Total													

¹Food groups: a. infant formula, milk other than breastmilk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables (and red palm oil); d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts; h. foods made with oil, fat, or butter.

²At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months

³Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products

⁴Non-breastfed children ages 6-23 months are considered to be fed with three appropriate feeding practices if they receive other milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food groups

⁵3+ food groups for breastfed children and 4+ food groups for non-breastfed children

⁶Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for non-breastfed children

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age 6 months, feeding small amounts and increasing the amount of foods and frequency of feeding as the child gets older while maintaining frequent breastfeeding. For the average, healthy **breastfed child**, solid/semi-solid foods should be provided 2-3 times per day at 6-8 months and 3-4 times per day between ages 9 and 24 months, with an additional snack being offered 1-2 times per day, as desired. The minimum feeding frequencies are based upon the energy needs from complementary foods based on age-specific total daily energy requirements plus 2 SD (to meet the needs of almost all children) minus the average energy intake from breastmilk by children in developing countries. Infants with low breastmilk intake would need to be fed more frequently. However, feeding frequencies greater than necessary may lead to the displacement of breastmilk (PAHO/WHO. 2003. *Guiding Principles for Complementary Feeding of the Breastfed Child*. Washington, D.C./Geneva, Switzerland: PAHO/WHO, 2003).

Although it is internationally recommended that infants should be breastfed for up to two years, there are a number of infants who will not have the benefits of breastfeeding or who will have stopped breastfeeding before two years. Guidelines have been developed for this group of children who may not be breastfed because of mothers' known HIV positive status, or whose mothers have died or for some other reason do not breastfeed (*Guiding Principles for Feeding Nonbreastfed Children 6 to 24 Months of Age*, Geneva, Switzerland: WHO, 2005.) The **non-breastfed child** is recommended to be fed solid/semi-solid foods 4-5 times per day between the ages of 6 and 23 months with an additional snack being offered 1-2 times per day, as desired.

Appropriate nutrition includes feeding children a variety of foods to ensure that nutrient requirements are met. Studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients. (WHO/UNICEF. 1998. Complementary feeding of young children in developing countries: a review of current scientific knowledge. Geneva: World Health Organization, WHO/NUT98.1) Therefore it has been advised that meat, poultry, fish or eggs should be eaten daily, or as often as possible. Vegetarian diets may not meet children's nutrient requirements unless supplements or fortified products are used. Vitamin-A rich fruits and vegetables should be consumed daily. And the diets of children should include an adequate fat content. Fat is important in the diets of infants and young children because it provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin-A) and enhances dietary energy density and palatability. Tea and coffee contain compounds that inhibit iron absorption and are not recommended for children. Sugary drinks and excessive juice consumption should be avoided because other than energy, they contribute little to the diet and as a result decrease the child's appetite for more nutritious foods (PAHO/WHO, 2003).

In summary,

- Breastfed children 6-23 months should receive animal source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Since first foods almost universally include a grain- or tuber-based staple, it is unlikely that young children who eat two or fewer food groups will receive both an animal-source food and a vitamin A-rich fruit or vegetable. Therefore, three food groups are considered as the minimum appropriate number of food groups for breastfed infants (Arimond and Ruel, 2003).
- Breastfed infants 6-8 months should be fed meals of complementary foods two to three times per day, with one to two snacks as desired; breastfed children 9-23 months should be fed meals three to four times per day, with one to two snacks (PAHO/WHO, 2003). The table shows the percentage of breastfed children who were fed at least the minimum number of times for their age (i.e., at least twice for infants 6-8 months and at least three times for children 9-23 months).
- Non-breastfed children 6-23 months should receive milk products to ensure their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Therefore, four food groups are considered as a minimum appropriate number of food groups for non-breastfed young children.
- Non-breastfed children 6-23 months should be fed meals four to five times per day, with one to two snacks as desired (*Guiding Principles for Feeding Nonbreastfed Children 6 to 24 Months of Age*, Geneva, Switzerland: WHO, 2005). The table shows the percentage of non-breastfed children ages 6-23 who were fed at least the minimum number of times (i.e., at least four per day).

Figure 11.6
Infant and Young Child Feeding (IYCF) Practices

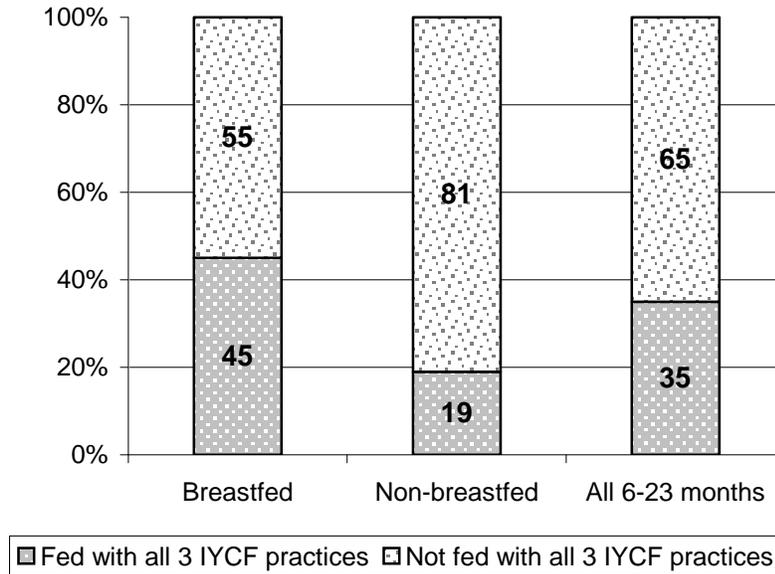


Figure 11.6 shows the percentage of youngest children age 6-23 months living with the mother fed according to a minimum standard of appropriate feeding practices. The minimum standard of infant and young child feeding (IYCF) practices for children 6-23 months are defined as follows: continued breastfeeding, and feeding at least the minimum number of times per day (according to age), and the minimum number of food groups per day. Results are presented for all children based on these criteria. However, not all infants and young children are breastfed, and it is important to assess quality of feeding separately for non-breastfed infants and young children. For non-breastfed children, the criteria reflected under “With all IYCF practices” are: receiving other milk or milk products (i.e., commercially produced infant formula, tinned, powdered, and fresh animal milk, cheese, yogurt and other milk products), having been fed at least the minimum number of times and minimum number of food groups appropriate for non-breastfed infants and young children. (See notes following Table 11.6)

Table 11.7 Prevalence of anemia in children

Percentage of children age 6-59 months classified as having anemia, by background characteristics, [country, year]

Background characteristic	Anemia status by hemoglobin level				Number of children
	Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (< 7.0 g/dl)	Any anemia (<11.0 g/dl)	
Age in months					
6-8					
9-11					
12-17					
18-23					
24-35					
36-47					
48-59					
Sex					
Male					
Female					
Mother's interview status					
Interviewed					
Not interviewed, but in household					
Not interviewed, and not in the household ¹					
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Mother's education²					
No education					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
Total					

Note: Table is based on children who slept in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Hemoglobin in grams per deciliter (g/dl).

¹Includes children whose mothers are deceased

²For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 11.7 presents anemia prevalence among children 6 to 59 months of age, according to selected background characteristics. Unadjusted (i.e., measured) values of hemoglobin are obtained using the HemoCue instrument. Given that hemoglobin requirements differ substantially depending on altitude, an adjustment to sea-level equivalents is made before classifying children by level of anemia.

Children <6 months are not included in the results because they have higher levels of hemoglobin at birth and just after birth, and including them may distort prevalence of anemia. However if anemia rates are high in the 6-8 months age group then it is likely that some children <6 months also may be anemic. The percentage of children not measured should be mentioned in the text. A working table will be prepared to show missing information as in the nutritional status tables. The complete reference for CDC, 1998 is *Centers for Disease Control and Prevention. 1998. Recommendations to prevent and control iron deficiency in the United States. Morbidity and Mortality Weekly Report 47 (RR-3): 1-29*. A working table with unadjusted anemia estimates will be produced. A discussion of the impact of the adjustment should be included in the text.

Micronutrient deficiencies are serious contributors to morbidity and mortality. The survey collects data concerning anemia status, consumption of vitamin A-rich and iron-rich foods, micronutrient supplementation (vitamin A and iron), and presence of iodized salt in households.

Iron deficiency is one of the most prevalent nutrient deficiencies in the world affecting an estimated two billion people. Young children and pregnant and postpartum women are the most severely affected because of the high iron demands of infant growth and pregnancy. Anemia is the condition of low levels of hemoglobin in the blood. This results in a reduced amount of oxygen being transported in the body. Iron is a main component of hemoglobin and iron deficiency is estimated to be responsible for half of all anemias globally. Other causes of anemia include malaria, hookworm and other helminthes, other nutritional deficiencies, chronic infections, genetic conditions which vary by region (such as sickle cell and thalassemia), HIV/AIDS, and high fertility. Anemia is a serious concern for children because it can impair cognitive development, stunt growth and increase morbidity from infectious diseases. Information on the prevalence of anemia can be useful for the development of health-intervention programs designed to prevent anemia, such as promoting consumption of iron rich foods, iron supplementation, food fortification and deworming programs as appropriate.

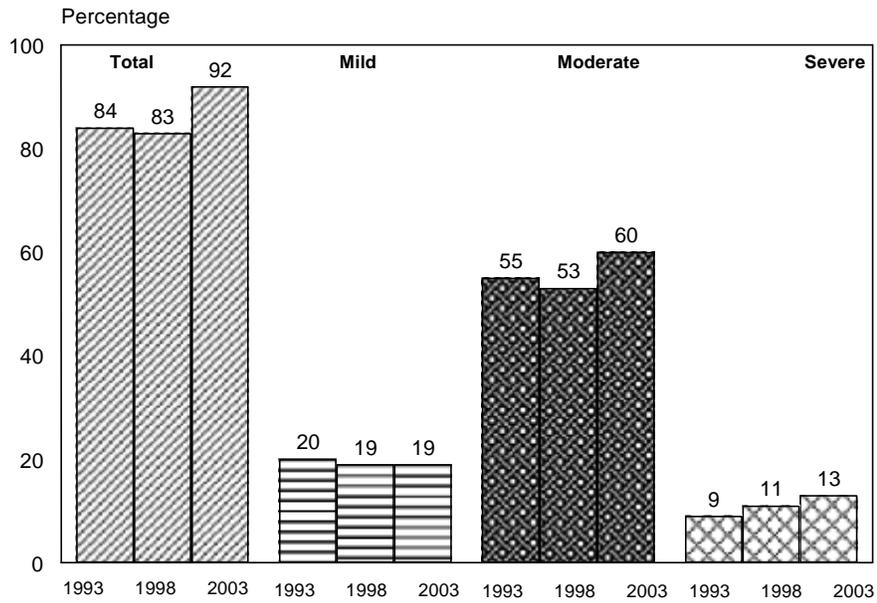
Prevalence (%) range proposed by WHO to categorize public health significance of anemia:

<u>Classification</u>	<u>Public health significance</u>	<u>Prevalence range</u>
Normal	(Acceptable)	<5.0 %
Medium	(Poor)	5.0-19.9%
High	(Serious)	20.0-39.9%
Very High	(Critical)	40.0% or more

(Iron Deficiency Anemia, Assessment, Prevention, and Control, A guide for programme managers WHO 2001)

Figure 11.7

Trends in Anemia Status among Children under Five Years



Since data from prior surveys may be based only on children whose mothers were interviewed, only years in which data are comparable should be included, i.e., either most recent survey years in which all children were included. If all survey years are included, a footnote should be added noting that the chart is based only on children whose mothers were interviewed.

Table 11.8 Micronutrient intake among children

Among youngest children age 6-35 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, and among all children 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey, who were given iron supplements in the last seven days, and who were given deworming medication in the six months preceding the survey, and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with adequately iodized salt, by background characteristics, [country, year]

Background characteristic	Among youngest children age 6-35 months living with the mother:			Among all children age 6-59 months:				Among children age 6-59 months living in households tested for iodized salt	
	Percentage who consumed foods rich in Vitamin A in last 24 hours ¹	Percentage who consumed foods rich in iron in last 24 hours ²	Number of children	Percentage given Vitamin A supplements in last 6 months	Percentage given iron supplements in last 7 days	Percentage given deworming medication in last 6 months ³	Number of children	Percentage living in households with adequately iodized salt ⁴	Number of children
Age in months									
6-8									
9-11									
12-17									
18-23									
24-35	na	na	na						
36-47	na	na	na						
48-59	na	na	na						
Sex									
Male									
Female									
Breastfeeding status									
Breastfeeding									
Not breastfeeding									
Mother's age									
15-19									
20-29									
30-39									
40-49									
Residence									
Urban									
Rural									
Region									
Region 1									
Region 2									
Region 3									
Region 4									
Mother's education									
No education									
Primary									
Secondary									
More than secondary									
Wealth quintile									
Lowest									
Second									
Middle									
Fourth									
Highest									
Total									

Note: Information on vitamin A and iron supplements and deworming medication is based on the mother's recall.

na = Not applicable

¹Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil [if data are collected]

²Includes meat (including organ meat), fish, poultry, and eggs

³Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis

⁴Salt containing 15 parts per million (ppm) of iodine or more. Excludes children in households in which salt was not tested.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage (xerophthalmia) leading to blindness and can increase the severity of infections and cause slow recovery from illness. Globally, VAD is the leading cause of childhood blindness. Children who have VAD have reduced immunity and are less likely to recuperate from common childhood illnesses, such as diarrhea, ARI, and measles, and are twice as likely to die as children who do not have VAD. VAD is common in dry environments where fresh fruits and vegetables are not readily available. Children can obtain vitamin A from foods such as breastmilk, liver, eggs, fish, butter, red palm oil, mangos, papayas, carrots, pumpkins, and dark green leafy vegetables and fortified foods. Since vitamin A is a fat-soluble vitamin, consumption of oil or fat is necessary for its absorption into the body. The liver can store an adequate amount of the vitamin for four to six months. Periodic dosing (every 6 months) with vitamin A supplements is a rapid, low-cost method of ensuring that children at risk do not develop VAD.

Dietary deficiency of iodine constitutes a major, global, public health concern. A 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. Since iodine cannot be stored for long periods by the body, tiny amounts are needed regularly. Where soil and therefore crops and grazing animals do not provide sufficient dietary iodine to the population, and where seafood is not regularly consumed, food fortification has proven to be a highly successful and sustainable intervention. The fortification of salt with iodine is the most common method of preventing IDD. Fortified salt that contains 15 parts per million (ppm) of iodine is considered adequate for the prevention of IDD. When vulnerable populations do not have access to fortified foods such as iodized salt, a short-term solution is supplementation with capsules containing iodized oil.

Table 11.9 Presence of iodized salt in household

Among all households, percentage of households tested for iodine content and percentage of households with no salt; and among households with salt tested, the percent distribution by level of iodine in salt (parts per million or ppm), according to background characteristics, [country, year]

Background	Among all households, the percentage:		Number of households	Among households with tested salt, the percent distribution by iodine content of salt				Number of households
	With salt tested	With no salt		None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	Total	
Residence								
Urban							100.0	
Rural							100.0	
Region								
Region 1							100.0	
Region 2							100.0	
Region 3							100.0	
Region 4							100.0	
Wealth quintile								
Lowest							100.0	
Second							100.0	
Middle							100.0	
Fourth							100.0	
Highest							100.0	
Total							100.0	

If the percentage of households with no salt is very low, the column should be deleted and a footnote added to state that the table excludes 'x' number of households with no salt.

Table 11.10.1 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, [country, year]

Background characteristic	Height		Body Mass Index ¹							Number of women	
	Percentage under 145 cm	Number of women	Mean Body Mass Index (BMI)	Normal		Thin		Overweight/obese			
				18.5– 24.9 (Total normal)	<18.5 (Total thin)	17.0 -18.4 (Mildly thin)	<17.0 (Moderately and severely thin)	≥ 25.0 (Total over-weight/obese)	25.0 – 29.9 (Over-weight)		≥ 30.0 (Obese)
Age											
15-19											
20-29											
30-39											
40-49											
Residence											
Urban											
Rural											
Region											
Region 1											
Region 2											
Region 3											
Region 4											
Education											
No education											
Primary											
Secondary											
More than secondary											
Wealth quintile											
Lowest											
Second											
Middle											
Fourth											
Highest											
Total											

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m²).

¹Excludes pregnant women and women with a birth in the preceding 2 months

Low pre-pregnancy BMI and short stature of women are risk factors for poor birth outcomes and delivery complications. In developing countries maternal underweight is the leading risk factor for preventable death and diseases (The World Health Report, WHO 2002). The prevalence of overweight women and men is a growing concern in developing countries, predisposing them to a wide range of health problems such as diabetes and heart disease as well as poor birth outcomes for women. In many countries, though, chronic energy deficiency of adults is still a problem which leads to low work productivity and reduced resistance to illness.

Table 11.10.2 Nutritional status of men

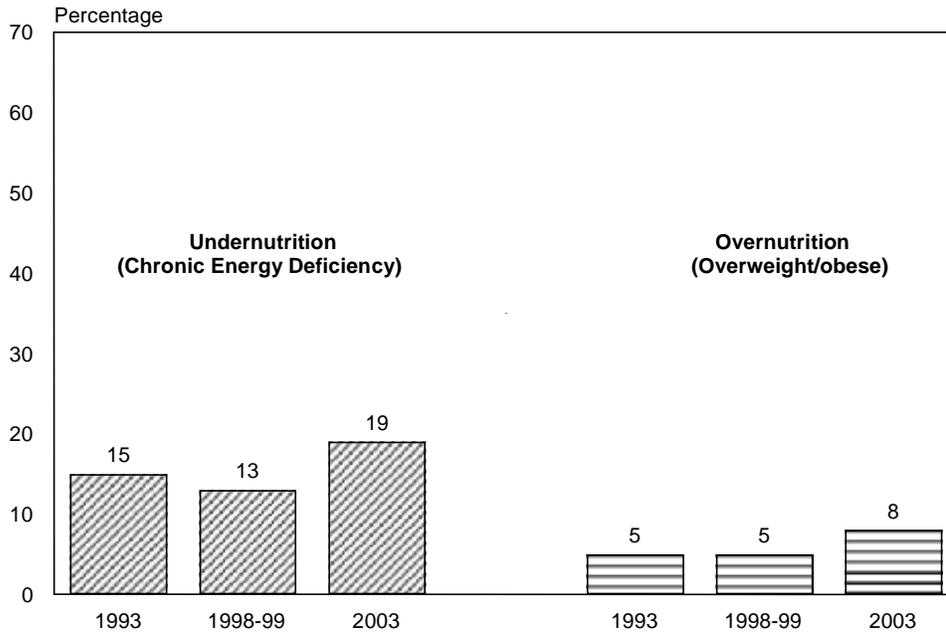
Among men age 15-49, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, [country, year]

Background characteristic	Body Mass Index								Number of men
	Mean Body Mass Index (BMI)	Normal 18.5– 24.9 (Total normal)	Thin			Overweight/obese			
			<18.5 (Total thin)	17.0 -18.4 (Mildly thin)	<17.0 (Moderately and severely thin)	≥ 25.0 (Total over-weight/obese)	25.0 – 29.9 (Over-weight)	≥ 30.0 (Obese)	
Age									
15-19									
20-29									
30-39									
40-49									
Residence									
Urban									
Rural									
Region									
Region 1									
Region 2									
Region 3									
Region 4									
Education									
No education									
Primary									
Secondary									
More than secondary									
Wealth quintile									
Lowest									
Second									
Middle									
Fourth									
Highest									
Total 15-49									
50-54[59]									
Total 15-54[59]									

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m²).

Figure 11.8

Trends in Nutritional Status among Women 15-49 Years



Note: Undernutrition BMI <18.5 and overnutrition BMI \geq 25.0

Table 11.11 Foods consumed by mothers in the day or night preceding the interview

Among mothers age 15-49 with a child under age three years living with them, the percentage who consumed specific types of foods in the day or night preceding the interview, by background characteristics, [country, year]

Background characteristic	Liquids		Solid or semi-solid foods							Foods made with oil/fat/butter	Sugary foods	Number of mothers
	Milk	Tea/coffee	Foods made from grains	Foods made from roots/tubers	Foods made from legumes	Meat/fish/shellfish/poultry/eggs	Cheese/Yogurt	Vitamin A-rich fruits/vegetables ¹	Other fruits/vegetables			
Age												
15-19												
20-29												
30-39												
40-49												
Residence												
Urban												
Rural												
Region												
Region 1												
Region 2												
Region 3												
Region 4												
Education												
No education												
Primary												
Secondary												
More than secondary												
Wealth quintile												
Lowest												
Second												
Middle												
Fourth												
Highest												
Total												

Note: Foods consumed in the last “24-hour” period (yesterday and last night).

¹Includes [list fruits and vegetables included in the questionnaire such as pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A]

Adequate maternal nutrition is important for the health and reproductive outcomes of women and child survival and development. Because of women’s childbearing and nurturing roles, pre- and postnatal health and nutritional status is an important determinant of the survival and development of the fetus and newborn child, in addition to women’s own health, productivity, and well-being.

Table 11.11 presents the diversity of food groups consumed by mothers who gave birth in the last three years, providing important information on maternal eating patterns. This information has policy and programmatic implications as a proxy for the quality of mother's diet

Table 11.12.1 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, [country, year]

Background characteristic	Anemia status by hemoglobin level				Number of women	
		Mild	Moderate anemia	Severe anemia		Any Anemia
	Not pregnant	10.0-11.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl		< 12.0 g/dl
Pregnant		10.0-10.9 g/dl	7.0-9.9 g/dl	< 7.0 g/dl	<11.0 g/dl	
Age						
15-19						
20-29						
30-39						
40-49						
Number of children ever born						
0						
1						
2-3						
4-5						
6+						
Maternity status						
Pregnant						
Breastfeeding						
Neither						
Using IUD						
Yes						
No						
Smoking status						
Smokes cigarettes/tobacco						
Does not smoke						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

Note: Prevalence is adjusted for altitude and for smoking status, if known, using formulas in CDC, 1998.

Tables 11.12.1 and 11.12.2 present anemia prevalence among women and men age 15-49, based on hemoglobin levels, according to selected background characteristics. The raw measured values of hemoglobin were obtained using the HemoCue instrument. Given that hemoglobin requirements differ substantially depending on altitude and smoking status, an adjustment is made before classifying women and men by level of anemia.

[Note: Working tables identical to Table 11.12.1 and 11.12.2 but with unadjusted anemia estimates will be produced. Authors should include a discussion of the impact of the adjustment in the text.]

<u>Working table. Prevalence of anemia in women, unadjusted for smoking status</u>						
Percentage of women age 15-49 with anemia, by background characteristics, [country, year]						
Background characteristic		Anemia status by hemoglobin level				Number of Women
		Mild	Moderate anemia	Severe anemia	Any Anemia	
		Not pregnant	10.0-11.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	
Pregnant	10.0-10.9 g/dl	7.0-9.9 g/dl	< 7.0 g/dl	<11.0 g/dl		
Age						
		15-19				
		20-29				
		30-39				
		40-49				
		.				
		.				
		.				
		.				
		.				
Wealth quintile						
		Lowest				
		Second				
		Middle				
		Fourth				
		Highest				
Total						
Note: Prevalence is adjusted for altitude using formulas in CDC, 1998.						

Working table. Prevalence of anemia in men, unadjusted for smoking status

Percentage of men age 15-49 with anemia, by background characteristics, [country, year]

Background characteristic	Anemia status by hemoglobin level					Number of Men
		Mild	Moderate anemia	Severe anemia	Any Anemia	
	Age 15-17 years	Cut-offs to be defined				
	Age 18 years or older	Cut-offs to be defined				
Age						
15-19						
20-29						
30-39						
40-49						
.						
.						
.						
.						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]						
Total 15-54[59]						

Note: Prevalence is adjusted for altitude using formulas in CDC, 1998.

Figure 11.9

Trends in Anemia Status among Women 15-49 Years

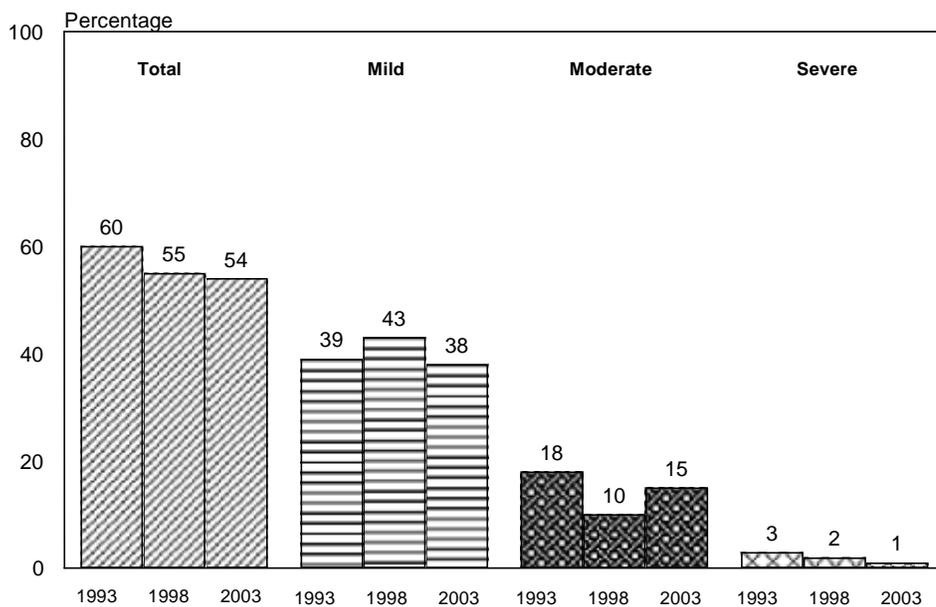


Table 11.13 Micronutrient intake among mothers

Among women age 15-49 with a child under age three years living with her, the percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among women age 15-49 with a child born in the last five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child; among mothers age 15-49 who during the pregnancy of the last child born in the five years prior to the survey, the percentage who suffered from night blindness, the percentage who took iron tablets or syrup for specific numbers of days, and the percentage who took deworming medication; and among women age 15-49 with a child born in the last five years, who live in households that were tested for iodized salt, the percentage who live in households with adequately iodized salt, by background characteristics, [country, year]

Background characteristic	Among women with a child under three years living with her		Among women with a child born in the last five years							Among women with a child born in the last five years, who live in households that were tested for iodized salt			
	Percentage who consumed Vitamin-A rich foods ¹	Percentage who consumed iron-rich foods ²	Number of women	Percentage who suffered night blindness during pregnancy of last birth		Number of days women took iron tablets or syrup during pregnancy of last birth				Percentage of women who took deworming medication during pregnancy of last birth	Number of women	Percentage living in households with adequately iodized salt ⁵	Number of women
				Reported	Adjusted ⁴	None	<60	60-89	90+				
Age													
15-19													
20-29													
30-39													
40-49													
Residence													
Urban													
Rural													
Region													
Region 1													
Region 2													
Region 3													
Region 4													
Education													
No education													
Primary													
Secondary													
More than secondary													
Wealth quintile													
Lowest													
Second													
Middle													
Fourth													
Highest													
Total													

¹Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil [if data are collected]

²Includes meat (and organ meat), fish, poultry, and eggs

³In the first two months after delivery of last birth

⁴Women who reported night blindness but did not report difficulty with vision during the day

⁵Salt containing 15 ppm of iodine or more. Excludes women in households where salt was not tested.

Breastfeeding children benefit from micronutrient supplementation that the mother receives, especially vitamin A. Night blindness is an indicator of severe vitamin A deficiency (VAD), to which pregnant women are especially prone. In the DHS, women are asked if they had had difficulty with their vision during daylight and if they also had suffered from night blindness during their last pregnancy. The percentage of women with adjusted night blindness is the percentage of women who only suffer from vision difficulties at night. This adjustment may underestimate the occurrence of night blindness in women if they also have daytime vision problems. However, this procedure avoids the misclassification of other vision problems as night blindness.

VAD can be prevented 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 being pregnant). Due to possible adverse effects (birth defects) resulting from high doses of vitamin A, a high dose vitamin A supplement should not be given to pregnant women.

Anemia is a key health status indicator for maternal nutrition. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia. Anemia also results in an increased risk of premature delivery and low birth weight. Iron deficiency, a major cause of anemia, is one for the top 10 risk factors in the developing countries for "lost years of healthy life" (The World Health Report, WHO, 2002). Information on the prevalence of anemia can be useful for the development of health intervention programs designed to prevent and control

anemia, such as iron supplementation and fortification programs. Iron supplementation of women during pregnancy protects mother and infant. Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis (See notes following Table 11.7.)

CHAPTER 12

MALARIA

This chapter is used when the malaria module questions are included in the questionnaires. The chapter presents data that are useful for assessing the implementation of malaria control strategies, the availability and use of mosquito nets by women and children and the prophylactic use of antimalarial drugs. Data are presented which show the percentage of households possessing mosquito nets by category (any nets and insecticide treated nets (ITNs)) and the percentages of women and children who slept under a net the night before the survey.

Data are also presented showing, for women who gave birth in the two years preceding the survey, the percentage who took SP/Fansidar during pregnancy, and the percentage who obtained SP/Fansidar as part of antenatal care from a health facility (referred to as Intermittent Preventive Treatment). Additionally, among children under age five, information is provided on the percentage of children who experienced an episode of fever in the two weeks preceding the survey, whether they were treated with antimalarial drugs, the specific drug(s) they received and the timeliness with which they received drug treatment (the same or next day following onset of fever). Finally, for children taking drugs, the percentage for which the drugs taken were already available in the home at the onset of the fever is shown.

Table 12.1 Household possession of mosquito nets

Percentage of households with at least one and more than one mosquito net (treated or untreated), ever-treated mosquito nets and insecticide-treated net¹ (ITN), and the average number of nets per household, by background characteristics, [country, year]

Background characteristic	Any type of mosquito net			Ever-treated mosquito nets ¹			Insecticide-treated mosquito nets (ITNs) ²			Number of households
	Percentage with at least one	Percentage with more than one	Average number of nets per household	Percentage with at least one	Percentage with more than one	Average number of ever-treated nets per household	Percentage with at least one	Percentage with more than one	Average number of ITNs per household	
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total										

¹ An ever-treated net is 1) a pretreated net or a non-pretreated which has subsequently been soaked with insecticide at any time

² An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months

Window screens and untreated mosquito nets and curtains offer some protection against mosquitoes and other insects but screens and nets are often ill-fitting or torn which reduces their effectiveness as a physical barrier. These defects can be largely overcome by treatment with a fast-acting insecticide that will repel or kill mosquitoes.

Table 12.1 shows the possession by households of mosquito nets of various degrees of effectiveness.

Table 12.2 Use of mosquito nets by children

Percentage of children under five years of age who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated net (ITN) the night before the survey, by background characteristics, [country, year]

Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ever-treated net last night ¹	Percentage who slept under an ITN last night ²	Number of children
Age (in years)				
<1				
1				
2				
3				
4				
Sex				
Male				
Female				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total				
¹ An ever-treated net is 1) a pretreated net or a non-pretreated which has subsequently been soaked with insecticide at any time ² An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months				

Age is an important factor in determining levels of acquired immunity to malaria. For about six months following birth, antibodies acquired from the mother during pregnancy protect children born in areas of endemic malaria. This immunity is gradually lost and children start to develop their own immunity to malaria. The pace at which immunity is developed depends on their exposure to malaria infection, and in high malaria-endemic areas, children are thought to have attained a high level of immunity by their fifth birthday. Such children may experience episodes of malaria illness but usually do not suffer from severe, life-threatening malaria. Immunity in areas of low malaria transmission is acquired more slowly and malaria illness affects all age groups of the population.

Table 12.2 shows the protection afforded to children less than five years of age by various categories of mosquito nets. For the child's age in this table, the Household Listing in the Household Questionnaire is used if the child is not listed in the birth history of any woman with a completed Women's Questionnaire; otherwise, the age is calculated from the birth history in the mother's questionnaire.

Table 12.3 Use of mosquito nets by women

Percentage of all women age 15-49 and pregnant women age 15-49 who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated Net (ITN) the night before the survey, by background characteristics, [country, year]

Background characteristic	Percentage of all women age 15-49 who:				Percentage of pregnant women age 15-49 who:			
	Slept under any net last night	Slept under an ever-treated net last night ¹	Slept under an ITN last night ²	Number of women	Slept under any net last night	Slept under an ever-treated net last night ¹	Slept under an ITN last night ²	Number of women
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
None								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								

¹ An ever-treated net is 1) a pretreated net or a non-pretreated which has subsequently been soaked with insecticide at any time
² An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months

In malaria-endemic areas adults usually have acquired some degree of immunity to severe, life-threatening malaria. However, pregnancy leads to a depression of the immune system so that pregnant women, especially those in their first pregnancy, have a higher risk to malaria. Moreover, these malaras may be asymptomatic and lead to malaria-induced anemia and may interfere with the mother-fetus exchange resulting in low birth weight births. During pregnancy women can reduce the risk of the adverse effects of malaria by sleeping under insecticide- treated mosquito nets.

Table 12.4 Prophylactic use of antimalarial drugs and use of Intermittent Preventive Treatment (IPT) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who during the pregnancy took any antimalarial drug for prevention, who took SP/Fansidar, any and two or more doses, and who received Intermittent Preventive Treatment (IPT), by background characteristics, [country, year]

Background characteristic	SP/Fansidar			Intermittent Preventive Treatment ¹		Number of women with a live birth in the two years preceding the survey
	Percentage who took any antimalarial drug	Percentage who took any SP/Fansidar	Percentage who took 2+ doses	Percentage who received any SP/Fansidar during an ANC visit	Percentage who received 2+ doses, at least one during an ANC visit	
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
None						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						
¹ IPT: Intermittent Preventive Treatment is preventive treatment with SP/Fansidar during an antenatal care (ANC) visit treatment with a dose of sulfadoxine-pyrimethamine (SP/Fansidar) to pregnant women at each scheduled antenatal visit after the first trimester, but not more frequently than once a month.						

In high malaria-endemic areas, it is often health policy that pregnant women receive prophylactic treatment with the antimalarial drug SP/Fansidar once at the beginning of the second trimester of pregnancy and once at the beginning of the third trimester.

Table 12.5 Prevalence and prompt treatment of children with fever

Percentage of children under age five with fever in the two weeks preceding the survey, and among children with fever, the percentage who took antimalarial drugs and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, [country, year]

Background characteristic	Among children under age five:		Among children under age five with fever:		
	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)					
<12					
12-23					
24-35					
36-47					
48-59					
Sex					
Male					
Female					
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Mother's education					
None					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
Total					

Fever is the symptom that most frequently presages the onset of an episode of malaria illness. Especially in malaria-endemic areas, it is important that children experiencing fever receive prompt and effective treatment for malaria.

The table shows the percentage of children experiencing an episode of fever during the two weeks preceding the survey, the percentage having fever who received antimalarial drugs, and the percentage treated the same or next day following the onset of fever.

Table 12.6 Type and timing of antimalarial drugs taken by children with fever

Among children under age five with fever in the two weeks preceding the survey, the percentage who took specific antimalarial drugs and the percentage who took each type of drug the same or next day after developing fever, by background characteristics, [country, year]

Background characteristic	Percentage of children who took drug:						Percentage of children who took drug the same or next day:						Number of children with fever
	SP/ Fansidar	Chloro- quine	Amodia- quine	Quinine	ACT	Other anti- malarial	SP/ Fansidar	Chloro- quine	Amodia- quine	Quinine	ACT	Other anti- malarial	
Age (months)													
<12													
12-23													
24-35													
36-47													
48-59													
Sex													
Male													
Female													
Residence													
Urban													
Rural													
Region													
Region 1													
Region 2													
Region 3													
Region 4													
Mother's education													
None													
Primary													
Secondary													
More than													
Wealth quintile													
Lowest													
Second													
Middle													
Fourth													
Total													

Table 12.7 Availability at home of antimalarial drugs taken by children with fever

Among children under age five who had fever in the two weeks preceding the survey and who took specific antimalarial drugs, the percentage for whom the drug was at home when the child became ill with fever, [country, year]

Drug	Percentage for whom the drug was at home when child became ill with fever	Number of children who took the specific antimalarial drug
SP/Fansidar		
Chloroquine		
Amodiaquine		
Quinine		
ACT		
Other antimalarial drugs		
Any antimalarial drug		

CHAPTER 13

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

This chapter covers a number of HIV/AIDS-related issues and presents indicators for monitoring and evaluating HIV/AIDS prevention programs. The tables included in this chapter were jointly developed by UNAIDS, the President's Emergency Plan for AIDS Relief, UNGASS, and Youth Guide. In order to achieve comparability of indicators across data collected by different agencies, the tables in this chapter should not be modified except where necessary to take into account insufficient numbers of cases for presenting results or in the case where a survey did not collect the relevant information: e.g., in cases where the survey did not include the complete DHS HIV/AIDS module.

The tables in this chapter present information reported by both female and male respondents and can be grouped into four broad categories.

- **HIV/AIDS KNOWLEDGE** (Tables 13.1 – 13.4)
These tables show indicators concerning knowledge of AIDS, knowledge of HIV prevention methods, detailed or comprehensive knowledge about AIDS including knowledge of prevention of mother-to-child transmission of HIV.
- **ATTITUDES CONCERNING HIV/AIDS** (Tables 13.5 – 13.7)
This set of tables provides information about the willingness to provide care for a family member with AIDS and willingness to interact with people living with AIDS, women's attitudes toward negotiating sexual relation with their husbands and support for education about condom use to prevent AIDS.
- **HIV/AIDS-RELATED BEHAVIOR** (Tables 13.8 – 13.14)
This set of tables reports indicators such as having multiple sexual partners and higher-risk sexual intercourse in the past 12 months, commercial sexual relations and condom use in those circumstances, testing for HIV, self-reported prevalence of sexually-transmitted infections (STI) and the receipt of injections from health workers in the last 12 months.
- **YOUTH AND HIV/AIDS** (Tables 13.15 – 13.22)
These tables are for specific respondents age 15-24. They present detailed information about age at first sexual intercourse, condom use at first sexual intercourse, higher-risk sexual intercourse and condom use at last higher-risk intercourse in the past 12 months, age-mixing in sexual relationships, drunkenness during sexual intercourse and testing for HIV in the last 12 months.

Table 13.1 Knowledge of AIDS

4.1 AIS

Percentage of women and men age 15-49 who have heard of AIDS by background characteristics, [country, year]

Background characteristic	Women		Men	
	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men
Age				
15-24				
15-19				
20-24				
25-29				
30-39				
40-49				
Marital status				
Never married				
Ever had sex				
Never had sex				
Married/living together				
Divorced/separated/widowed				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-49				
50-54[59]	na	na		
Total 15-54[59]	na	na		

na = Not applicable

Table 13.2 Knowledge of HIV prevention methods

4.2 AIS

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, [country, year]

Background characteristic	Women					Men				
	Percentage who say HIV can be prevented by					Percentage who say HIV can be prevented by				
	Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms, and limiting sexual intercourse to one uninfected partner ^{1,2}	Abstaining from sexual intercourse	Number of women	Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms, and limiting sexual intercourse to one uninfected partner ^{1,2}	Abstaining from sexual intercourse	Number of men
Age										
15-24										
15-19										
20-24										
25-29										
30-39										
40-49										
Marital status										
Never married										
Ever had sex										
Never had sex										
Married/living together										
Divorced/separated/widowed										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Education										
No education										
Primary										
Secondary										
More than secondary										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total 15-49										
50-54[59]	na	na	na	na	na	na	na	na	na	na
Total 15-54[59]	na	na	na	na	na	na	na	na	na	na

na = Not applicable

¹ Using condoms every time they have sexual intercourse

² Partner who has no other partners

Most HIV/AIDS programs that target the general population promote monogamy and condom use as the primary ways of avoiding HIV infection among sexually active men and women, who make up the majority of all adults in virtually every population.

In Table 13.2, data columns 3 and 8 show indicators which measure the extent to which those messages have reached the general population. The totals correspond to UNAIDS *Knowledge Indicator 1* "Knowledge of HIV prevention methods."

Table 13.3.1 Comprehensive knowledge about AIDS : Women

4.3.1
AIS

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, [country, year]

Background characteristic	Percentage of women who say that:				Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions ¹	Percentage with a comprehensive knowledge about AIDS ²	Number of women
	A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites [COUNTRY SPECIFIC]	AIDS cannot be transmitted by supernatural means [COUNTRY SPECIFIC]	A person cannot become infected by sharing food with a person who has AIDS [COUNTRY SPECIFIC]			
Age							
15-24							
15-19							
20-24							
25-29							
30-39							
40-49							
Marital status							
Never married							
Ever had sex							
Never had sex							
Married/living together							
Divorced/separated/widowed							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							

¹ Two most common local misconceptions: [DEFINE FOR EACH COUNTRY BASED ON THE FREQUENCY DISTRIBUTION]

² Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Tables 13.3.1 and 13.3.2 provide indicators of the level of knowledge that certain popular ideas about AIDS transmission are incorrect.

UNAIDS *Knowledge* Indicator 2 “No incorrect beliefs about AIDS” is presented in data column 5 in Table 13.3.1 for women and in Table 13.3.2 for men. Popular misconceptions about AIDS transmission are determined on a country-specific basis. The statements used in the questionnaire should include the most common misconceptions in the country where the survey is implemented. One question should always center on knowledge of the concept of a “healthy carrier”, that is, knowledge that one may contract HIV by having unprotected sex even with an apparently healthy person. The exact wording referring to a healthy carrier may vary locally.

UNAIDS *Knowledge* Indicator 2 measures the level of misconception about AIDS transmission. Many of the people who know that condoms protect against AIDS may also believe that AIDS can be contracted from a mosquito bite or another uncontrollable event. Thus, they may reason why they should bother to reduce the pleasure of sex, if they can become infected by something as random as a mosquito bite. At high levels of HIV-related awareness and low levels of misconceptions about AIDS transmission is a strong indicator of a successful AIDS information campaign.

Table 13.3.2 Comprehensive knowledge about AIDS: Men

4.3.2 AIS

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, [country, year]

Background characteristic	Percentage of men who say that:			A person cannot become infected by sharing food with a person who has AIDS [COUNTRY SPECIFIC]	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions ¹	Percentage with a comprehensive knowledge about AIDS ²	Number of men
	A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites [COUNTRY SPECIFIC]	AIDS cannot be transmitted by supernatural means [COUNTRY SPECIFIC]				
Age							
15-24							
15-19							
20-24							
25-29							
30-39							
40-49							
Marital status							
Never married							
Ever had sex							
Never had sex							
Married/living together							
Divorced/separated/widowed							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total 15-49							
50-54[59]							
Total 15-54 [59]							
¹ Two most common local misconceptions: [DEFINE FOR EACH COUNTRY BASED ON THE FREQUENCY DISTRIBUTION]							
² Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions							

Table 13.4 Knowledge of prevention of mother to child transmission of HIV

4.4 AIS

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother to child transmission (MTCT) of HIV can be reduced by mother taking special drugs during pregnancy, by background characteristics, [country, year]

Background characteristic	Women				Men			
	Percentage who know that:				Percentage who know that:			
	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24								
15-19								
20-24								
25-29								
30-39								
40-49								
Marital status								
Never married								
Ever had sex								
Never had sex								
Married/living together								
Divorced/separated/								
Widowed								
Pregnancy status								
Currently pregnant					na	na	na	na
Not pregnant/not sure					na	na	na	na
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total 15-49								
50-54[59]	na	na	na	na				
Total 15-54 [59]	na	na	na	na				

na = Not applicable

Table 13.4 on knowledge of prevention of mother to child transmission of HIV (MTCT) is presented only if the HIV/AIDS module has been included in the survey questionnaire. The denominators for the percentages include all women and men 15-49.

Data columns 3 and 7 correspond to UNAIDS *Knowledge* Indicator 5 “Knowledge of prevention of mother to child transmission of HIV.” This indicator measures knowledge of methods to prevent transmission from a mother to her child through anti-retroviral therapy and by avoiding breastfeeding. Men's knowledge on this topic is important because in many societies men dominate decisions about family formation and childbearing.

Table 13.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

5.1.1 AIS

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, [country, year]

Background characteristic	Percentage of women who:				Percentage expressing attitudes on all four indicators	Number of women who have heard of AIDS
	Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus		
Age						
15-24						
15-19						
20-24						
25-29						
30-39						
40-49						
Marital status						
Never married						
Ever had sex						
Never had sex						
Married/living together						
Divorced/separated/widowed						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

Tables 13.5.1 and 13.5.2 indicate what people say about how they feel or what they would do when confronted with various situations involving people living with AIDS and are meant to detect social stigma associated with AIDS. The data are based on answers to a series of hypothetical questions about men and women with AIDS.

A low score on the indicator indicates high levels of stigma. However, a high score does not necessarily indicate low levels of stigma. While a high score could mean there is little real stigma attached to AIDS, it could also mean that the respondent has had limited personal exposure to people with AIDS. Additionally, it could mean that people know they should not discriminate and thus report accepting attitudes which do not reflect their true feelings. Thus, changes in this indicator between surveys could reflect a reduction in stigma or an increased awareness that it is not acceptable to express prejudices.

Table 13.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

5.1.2 AIS

Among men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, [country, year]

Background characteristic	Percentage of men who:				Percentage expressing attitudes on all four indicators	Number of men who have heard of AIDS
	Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus		
Age						
15-24						
15-19						
20-24						
25-29						
30-39						
40-49						
Marital status						
Never married						
Ever had sex						
Never had sex						
Married/living together						
Divorced/separated/widowed						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]						
Total 15-54 [59]						

Data column 5 in Tables 13.5.1 and 13.5.2 corresponds to the following indicators:

- 1) President's Emergency Plan for AIDS Relief *Policy and Systems Strengthening* Indicator 2 "Percentage of the general population with accepting attitudes toward persons living with HIV/AIDS"
- 2) UNICEF OVC *Raising Awareness to Create a Supportive Environment* Indicator A7 "Stigma and discrimination."
- 3) UNAIDS *Stigma and Discrimination* Indicator 1 "Accepting attitudes toward those living with HIV." (The UNAIDS indicator includes all respondents in the denominator, not just those who have heard of HIV/AIDS.)

Table 13.6 Attitudes toward negotiating safer sexual relations with husband

5.2 AIS

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him or asking that they use a condom, by background characteristics, [country, year]

Background characteristic	Women				Men			
	Woman is justified in:			Number of women	Woman is justified in:			Number of men
	Refusing to have sexual intercourse	Asking that they use a condom [MODULE]	or asking that they use a condom [MODULE]		Refusing to have sexual intercourse	Asking that they use a condom [MODULE]	or asking that they use a condom [MODULE]	
Age								
15-24								
15-19								
20-24								
25-29								
30-39								
40-49								
Marital status								
Never married								
Ever had sex								
Never had sex								
Married/living together								
Divorced/separated/widowed								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total 15-49								
50-54[59]	na	na	na	na				
Total 15-54[59]	na	na	na	na				

na = Not applicable

Data columns 3 and 7 correspond to UNAIDS *Sexual Negotiation and Attitudes* Indicator 1 “Women's ability to negotiate safer sex with husband.”

Data columns 2, 3, 6 and 7 are only shown if the HIV/AIDS module is used.

Table 13.7 Adult support of education about condom use to prevent AIDS

5.3 AIS

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics [country, year]

Background characteristic	Women		Men	
	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24				
18-19				
20-24				
25-29				
30-39				
40-49				
Marital status				
Never married				
Married/living together				
Divorced/separated/widowed				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 18-49				
50-54[59]	na	na		
Total 18-54 [18-59]	na	na		

na = Not applicable

Table 13.7 concerning adult support of education about condom use to prevent AIDS is shown only where the HIV/AIDS module has been included in the survey questionnaire. The table is limited to adult opinion, so the minimum age for the table is 18 years (not 15 years).

Data columns 1 and 3 correspond to the Youth Guide *Determinants* Indicator 15 “Adult support of education about condom use for prevention of HIV/AIDS among young people.”

Perception and beliefs about abstinence and faithfulness (Working table for Figure 13.1)		
Proportion of all women and men age 15-49 who believe/think that:	Women	Men
Young men should wait until they are married to have sexual intercourse	67	29
Young women should wait until they are married to have sexual intercourse	72	38
Married men should only have sex with their wives	89	74
Most married men they know only have sex with their wives	23	30
Married women should only have sex with their husbands	87	82
Most married women they know only have sex with their husbands	35	35

This table is for the production of Figure 13.1 and should not be shown. Figure 13.1 must be included in countries targeted for special initiatives under the President’s Emergency Plan for AIDS Relief.

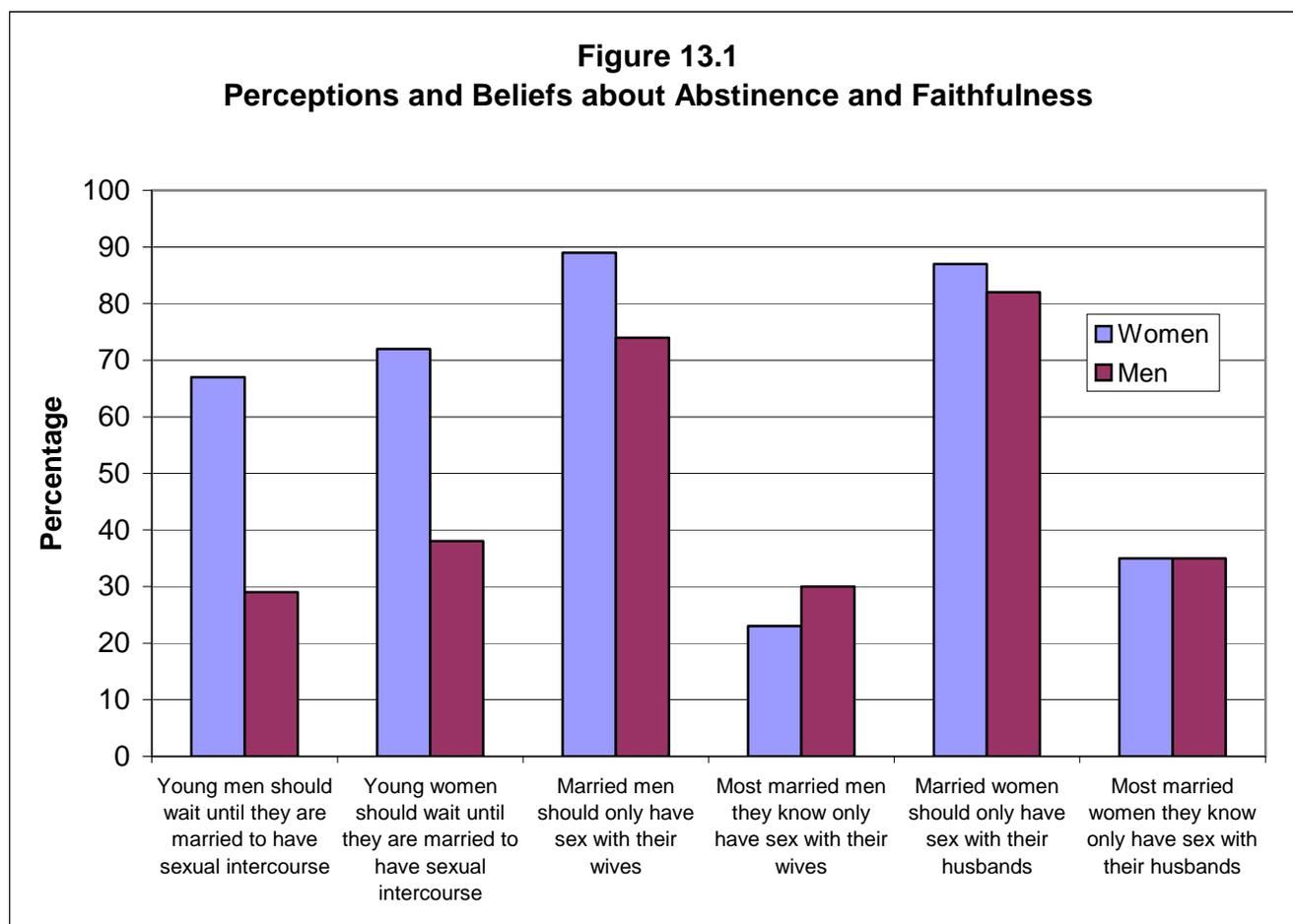


Table 13.8.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

6.2.1 AIS

Among women age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months; and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse; and the mean number of sexual partners during her lifetime for women who ever had sexual intercourse, by background characteristics, [country, year]

Background characteristic	Among women who had sexual intercourse in the past 12 months:			Among women who had 2+ partners in the past 12 months:		Among women who had higher-risk intercourse in the past 12 months:		Among women who ever had sexual intercourse:	
	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months ¹	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Percentage who reported using a condom at last higher-risk intercourse ¹	Number of women	Mean number of sexual partners in lifetime	Number of women
Age									
	15-24								
	15-19								
	20-24								
	25-29								
	30-39								
	40-49								
Marital status									
	Never married								
	Married/living together								
	Divorced/separated/widowed								
Residence									
	Urban								
	Rural								
Region									
	Region 1								
	Region 2								
	Region 3								
	Region 4								
Education									
	No education								
	Primary								
	Secondary								
	More than secondary								
Wealth quintile									
	Lowest								
	Second								
	Middle								
	Fourth								
	Highest								
Total									

¹Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

Tables 13.8.1, 13.8.2, and 13.9 pertain to potentially risky sexual activity in the 12 months preceding the survey (Tables 13.8.1 and 13.8.2 pertain to multiple sexual partners and Table 13.9 pertains to paid sex among male respondents). For the main survey report, an introductory paragraph to these tables should summarize some of the information presented earlier in Table 6.7 “Recent sexual activity.”

The following indicators are included in Tables 13.8.1 and 13.8.2:

- 1) Data column 1 corresponds to the President’s Emergency Plan for AIDS Relief *Prevention Indicator 4* “Percentage of women and men aged 15-49 who had sex with more than one partner in the last 12 months”

UNGASS *Knowledge and Behaviour Indicator 16* “Percentage of women and men aged 15–49 who have had sexual intercourse with more than one partner in the last 12 months”, and UNAIDS *Young Peoples Sexual Behavior Indicator 4*, “Young people having multiple partners in last year”.

2) Data column 2 corresponds to UNAIDS *Sexual Behavior Indicator 1* “Higher-risk sex in the last year.”

3) Data column 4 corresponds to UNGASS *Knowledge and Behaviour Indicator 17* “Percentage of women and men aged 15–49 who had more than one partner in the past 12 months reporting the use of a condom during their last sexual intercourse”.

4) Data column 6 corresponds to President’s Emergency Plan for AIDS Relief *Prevention Indicator 5* “Percentage of women and men age 15-49 who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months.”

Table 13.8.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

6.2.2 AIS

Among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months; and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse; and the mean number of sexual partners during his lifetime for men who ever had sexual intercourse, by background characteristics, [country, year]

Background characteristic	Among men who had sexual intercourse in the past 12 months:			Among men who had 2+ partners in the past 12 months:		Among men who had higher-risk intercourse in the past 12 months:		Among men who ever had sexual intercourse:	
	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk in the past 12 months ¹	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Percentage who reported using a condom at last higher-risk intercourse ¹	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15-24									
15-19									
20-24									
25-29									
30-39									
40-49									
Marital status									
Never married									
Married/living together									
Divorced/separated/widowed									
Residence									
Urban									
Rural									
Region									
Region 1									
Region 2									
Region 3									
Region 4									
Education									
No education									
Primary									
Secondary									
More than secondary									
Wealth quintile									
Lowest									
Second									
Middle									
Fourth									
Highest									
Total 15-49									
50-54[59]									
Total 15-54[59]									

¹Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

Table 13.9 Payment for sexual intercourse and condom use at last paid sexual intercourse: Men

6.3 AIS

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, [country, year]

Background characteristic	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
	Percentage who paid for sexual intercourse	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Age				
15-24				
15-19				
20-24				
25-29				
30-39				
40-49				
Marital status				
Never married				
Married/living together				
Divorced/separated/widowed				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-49				
50-54[59]				
Total 15-54[59]				

The following indicators are included in Table 13.9:

- 1) Data column 1 corresponds to UNAIDS *Sexual Behavior* Indicator 3 “Commercial sex in the last year.”
- 2) Data column 1 (for 15-24) corresponds to the Youth Guide *Behavioural* Indicator 21 “Sex with commercial sex worker among young people.”
- 3) Data column 3 corresponds to the President’s Emergency Plan for AIDS Relief *Prevention* Indicator 6 “Percent of men reporting sex with a sex worker in the last 12 months who used a condom during last paid intercourse” and UNAIDS *Sexual Behavior* Indicator 4 “Condom use at last commercial sex, client report.”

Table 13.10.1 Coverage of prior HIV testing: Women

6.4.1 AIS

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, [country, year]

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested ¹				
Age								
15-24					100.0			
15-19					100.0			
20-24					100.0			
25-29					100.0			
30-39					100.0			
40-49					100.0			
Marital status								
Never married					100.0			
Ever had sex					100.0			
Never had sex					100.0			
Married/living together					100.0			
Divorced/separated/widowed					100.0			
Residence								
Urban					100.0			
Rural					100.0			
Region								
Region 1					100.0			
Region 2					100.0			
Region 3					100.0			
Region 4					100.0			
Education								
No education					100.0			
Primary					100.0			
Secondary					100.0			
More than secondary					100.0			
Wealth quintile								
Lowest					100.0			
Second					100.0			
Middle					100.0			
Fourth					100.0			
Highest					100.0			
Total					100.0			

¹Includes 'Don't know/missing'

Tables 13.10.1 and 13.10.2, which pertain to coverage of prior HIV testing, are used only where the DHS HIV/AIDS module has been included in the survey questionnaire. The following indicators are included in the tables:

1) Data column 2 partially corresponds to UNAIDS *Voluntary Counseling and Testing* Indicator 1 “Population requesting an HIV test, receiving a test and receiving test results.” (The voluntary part of the indicator is not included in the table.)

2) Data column 7 corresponds to the President’s Emergency Plan for AIDS Relief *Counseling and Testing* Indicator 1 “Percentage of women and men age 15-49 who have been tested for HIV in the past 12 months and received their test results the last time they were tested” and UNGASS *National* Indicator 7, “Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results.”¹

Table 13.10.2 Coverage of prior HIV testing: Men

6.4.2 AIS

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, [country, year]

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test				Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested ¹					
Age									
15-24					100.0				
15-19					100.0				
20-24					100.0				
25-29					100.0				
30-39					100.0				
40-49					100.0				
Marital status									
Never married					100.0				
Ever had sex					100.0				
Never had sex					100.0				
Married/living together					100.0				
Divorced/separated/widowed					100.0				
Residence									
Urban					100.0				
Rural					100.0				
Region									
Region 1					100.0				
Region 2					100.0				
Region 3					100.0				
Region 4					100.0				
Education									
No education					100.0				
Primary					100.0				
Secondary					100.0				
More than secondary					100.0				
Wealth quintile									
Lowest					100.0				
Second					100.0				
Middle					100.0				
Fourth					100.0				
Highest					100.0				
Total 15-49					100.0				
50-54[59]					100.0				
Total 15-54[59]					100.0				

¹Includes 'Don't know/missing'

Table 13.11 Pregnant women counseled and tested for HIV

6.5 AIS

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counseling during antenatal care for their most recent birth, and percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, [country, year]

Background characteristic	Percentage who received HIV counseling during antenatal care ¹	Percentage who were offered and accepted an HIV test during antenatal care and who ² :		Percentage who were counseled, were offered and who accepted an HIV test, and who received results ²	Number of women who gave birth in the last two years ³
		Received results	Did not receive results		
Age					
15-24					
15-19					
20-24					
25-29					
30-39					
40-49					
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Education					
No education					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
Total					

¹ In this context, “counseled” means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus

² Only women who were offered the test are included here. Women who were either required or asked for the test are excluded from the numerator of this measure.

³ Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years

Table 13.11 on pregnant women counseled and tested for HIV is used only where the DHS HIV/AIDS module has been included in the questionnaire.

Data column 4 corresponds to UNAIDS *Mother to Child Transmission* Indicator 1 “Pregnant women counseled and tested for HIV.”

Table 13.12 Male circumcision		
Percentage of men age 15-49 who report having been circumcised, by background characteristics, [country, year]		
Background characteristic	Percentage Circumcised	Number of men
Age		
15-24		
15-19		
20-24		
25-29		
30-39		
40-49		
Residence		
Urban		
Rural		
Region		
Region 1		
Region 2		
Region 3		
Region 4		
Ethnic Group		
Group 1		
Group 2		
Group 3		
Education		
No education		
Primary		
Secondary		
More than		
Wealth quintile		
Lowest		
Second		
Middle		
Fourth		
Highest		
Total 15-49		
50-54[59]		
Total 15-54[59]		

Male circumcision has been shown to lower the risk to men of contracting sexually transmitted infections, including HIV. This table shows the percentage of men who report that they have been circumcised. Men who declared that they were unsure whether they had been circumcised are considered as not having been circumcised.

Table 13.13 Self-reported prevalence of sexually-transmitted infections (STIs) and STIs symptoms

6.6 AIS

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, [country, year]

Background characteristic	Women					Men				
	Percentage of women who reported having in the past 12 months:				Number of women who ever had sexual intercourse	Percentage of men who reported having in the past 12 months:				Number of men who ever had sexual intercourse
	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer		STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	
Age										
15-24										
15-19										
20-24										
25-29										
30-39										
40-49										
Marital status										
Never married										
Married/living together										
Divorced/separated/ Widowed										
Circumcised										
Yes	na	na	na	na	na					
No	na	na	na	na	na					
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Education										
No education										
Primary										
Secondary										
More than secondary										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total 15-49										
50-54[59]	na	na	na	na	na					
Total 15-54 [59]	na	na	na	na	na					

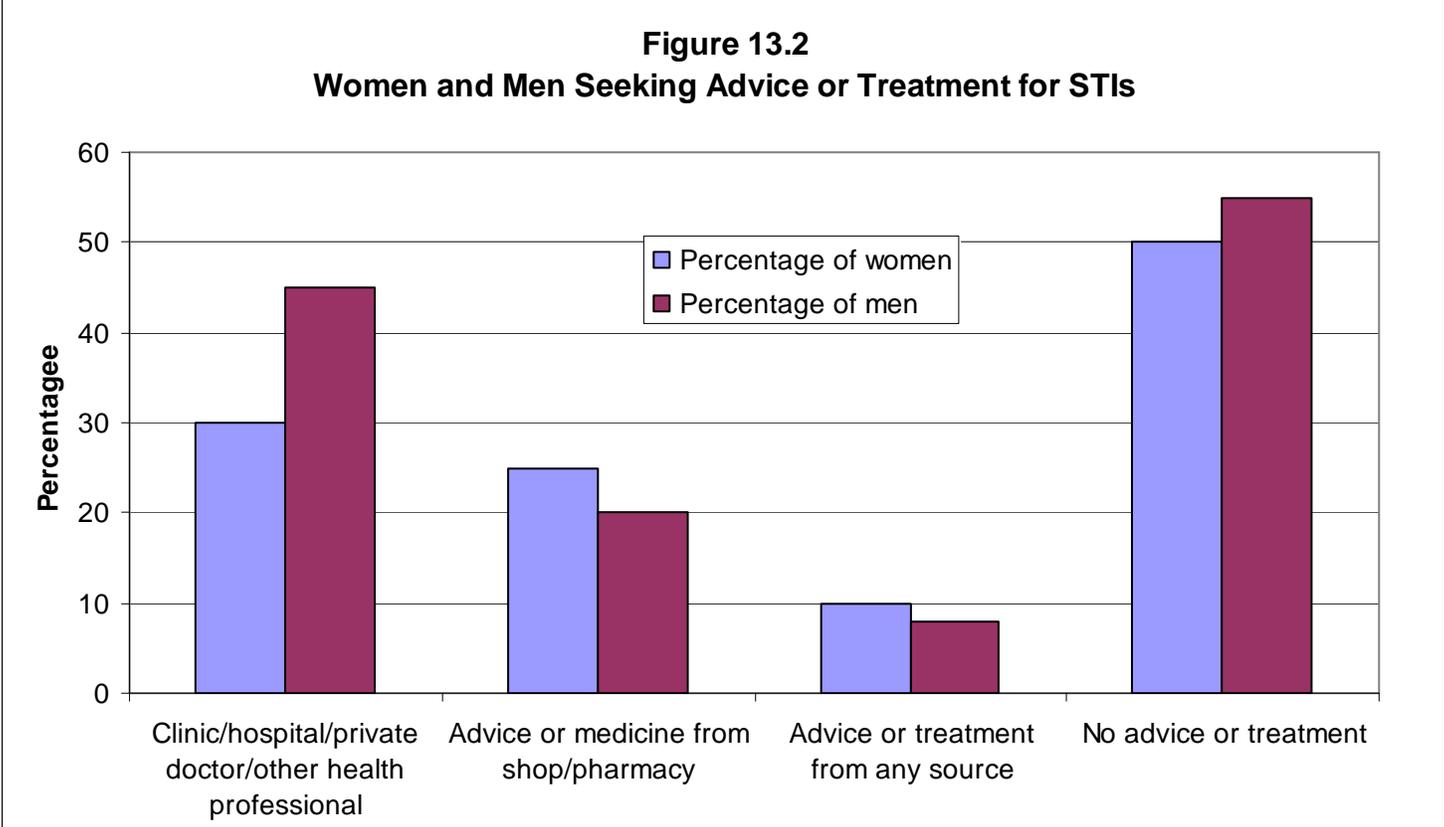
na = Not applicable

Table 13.13 presents information on self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms.

Data columns 1 and 7 for age 15-24 partially correspond to Youth Guide *Impact* Indicator 30 “Young people with a sexually transmitted infection.” The Youth Guide definition specifies: “Young people with sexually-transmitted infections that were detected during diagnostic testing.”

The following table is used to produce Figure 13.2 and should not be shown in the report.

Women and men seeking treatment for STIs (Working table for Figure 13.2)		
Percentage of women and men age 15-49 reporting an STI or symptoms of an STI in the last 12 months who sought advice or treatment, [country, year]		
Source of advice or treatment	Percentage of WOMEN	Percentage of MEN
Clinic/hospital/private doctor/other health professional	30	45
Advice or medicine from shop/pharmacy	25	20
Advice or treatment from any other source	10	8
No advice or treatment	50	55
Number with STD and symptoms of STD		
Note: The categories are not mutually exclusive and the sum of percentages may exceed 100 percent.		



The first two bars in Figure 13.2 (row 1 in the table) correspond to UNAIDS *STI Care and Prevention* Indicator 4 “Men and women seeking treatment for STIs” (The UNAIDS indicator specifies: “Percentage of respondents reporting symptoms of STIs in the last 12 months who sought care at a service provider with personnel trained in STI care.”)

Table 13.14 Prevalence of medical injections

6.7 AIS

Percentage of women and men age 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, [country, year]

Background characteristic	Women					Men				
	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the last 12 months	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the last 12 months
Age										
15-24										
15-19										
20-24										
25-29										
30-39										
40-49										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Education										
No education										
Primary										
Secondary										
More than										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total 15-49										
50-54[59]										
Total 15-54[59]	na	na	na	na	na	na	na	na	na	na

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist or any other health worker.
na = Not applicable

Table 13.14 provides information on the receipt of medical injections in the 12 months preceding the survey.

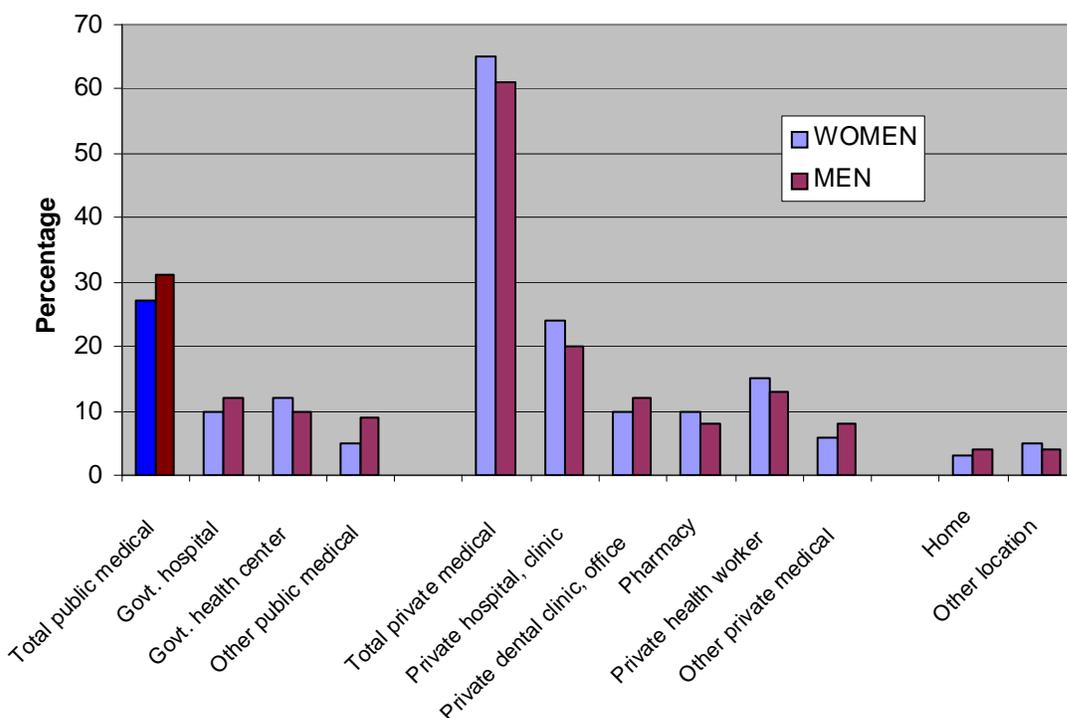
The following indicators are included in the table:

- 1) Data columns 2 and 7 correspond to the President’s Emergency Plan for AIDS Relief *Prevention* Indicator 8 “Average number of medical injections per person per year.”
- 2) Data columns 4 and 9 correspond to President’s Emergency Plan for AIDS Relief *Prevention* Indicator 9 “Proportion of women and men reporting that the last health care injection was given with a syringe and needle set from a new, unopened package.”

The following table is for the production of Figure 13.3 and should not be shown in the report.

Source of last medical injection (Working table for Figure 13.3)				
Percent distribution of women and men age 15-49 who received a medical injection in the last 12 months by type of facility where received the last injection, [country, year]				
Facility for last medical injection	Women		Men	
	Percent	N	Percent	N
Total public medical facility				
Govt. hospital				
Govt. health center				
Other public facility				
Total private medical facility				
Private hospital, clinic				
Private dental clinic, office				
Pharmacy				
Private health worker				
Other private medical				
Home				
Other location				
Total	100.0		100.0	
Number with a medical injection				

Figure 13.3
Type of Facility Where Last Medical injection Was Received



The following table is for production of Figure 13.4 and should not be shown in the report.

Safe injection (Working table for Figure 13.4)		
Among women and men age 15-49 who received a medical injection in the last 12 months, the percentage whose last medical injection was given with a syringe and needle taken from a new, unopened package, according to type of facility where received the last injection, [country, year]		
Facility for last medical injection	Women	Men
Total public medical		
Govt. hospital		
Govt. health center		
Other public medical		
Total private medical		
Private hospital, clinic		
Private dental clinic, office		
Pharmacy		
Private health worker		
Other private medical		
Home		
Other location		
ALL		
Number with medical injection		

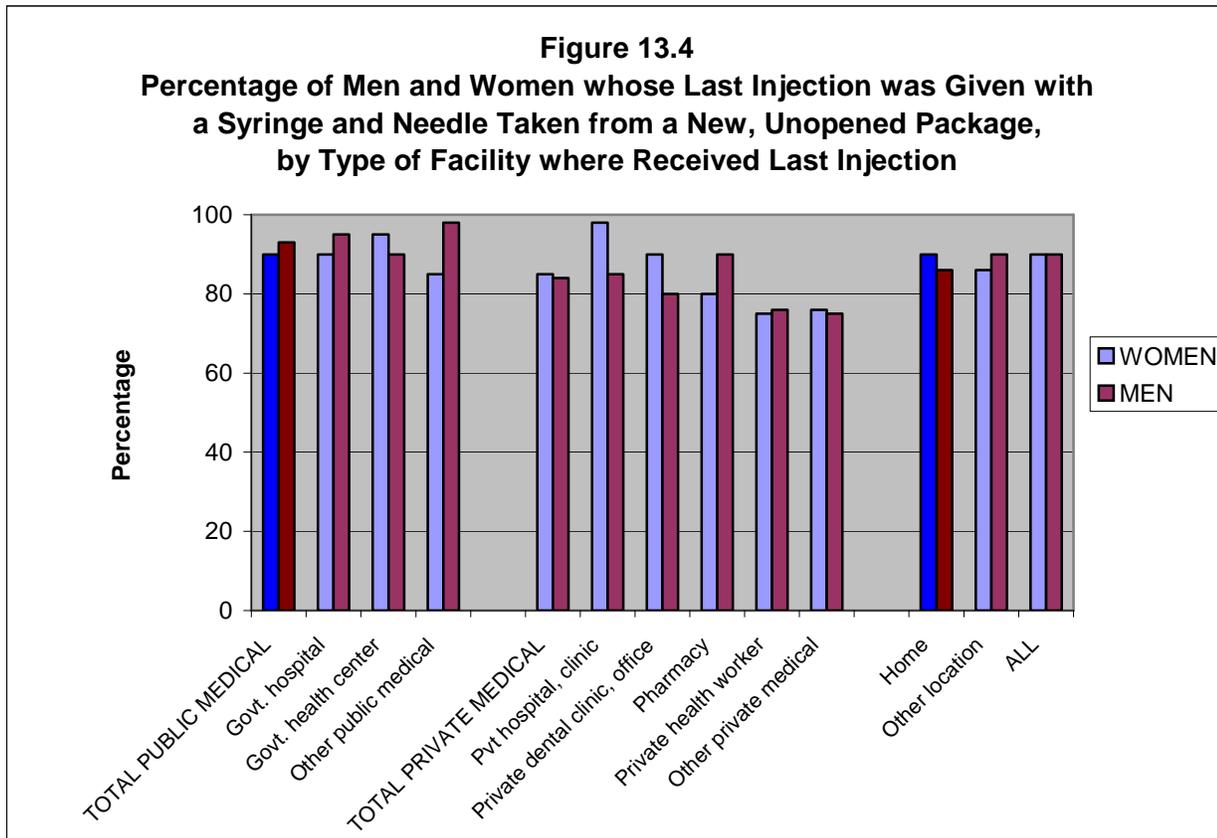


Table 13.15 Comprehensive knowledge about AIDS and of a source of condoms among youth						7.1 AIS
Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, [country, year]						
Background characteristic	Women age 15-24			Men age 15-24		
	Percentage with comprehensive knowledge of AIDS ¹	Percentage who know a condom source ²	Number of women	Percentage with comprehensive knowledge of AIDS ¹	Percentage who know a condom source ²	Number of men
Age						
15-19						
15-17						
18-19						
20-24						
20-22						
23-24						
Marital status						
Never married						
Ever had sex						
Never had sex						
Ever married						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-24						

¹Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.

²For this table, the following responses are not considered sources for condoms: friends, family members and home

Table 13.15 pertains to comprehensive knowledge about AIDS and of a condom source among the population age 15-24.

Data columns 1 and 4 in Table 13.15 correspond to the following indicators:

- 1) President’s Emergency Plan for AIDS Relief *Prevention* Indicator 1 “Percentage of young people age 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission.” Major misconceptions are determined on a country specific basis.
- 2) Youth Guide *Risk Factors and Preventive Factors* Indicator 9 “Knowledge of HIV prevention among young people.”
- 3) UNGASS *Knowledge and Behaviour* Indicator 13 “Percentage of young women and men aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission”.

Data columns 2 and 5 correspond to Youth Guide *Risk Factors and Preventive Factors* Indicator 10 “Knowledge of a formal source of condoms among young people.”

Table 13.16 Age at first sexual intercourse among youth

7.2 AIS

Percentage of young women and of young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, [country, year]

Background characteristic	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19			na	na			na	na
15-17			na	na			na	na
18-19								
20-24								
20-22								
23-24								
Marital status								
Never married								
Ever married								
Knows condom source¹								
Yes								
No								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total 15-24								
na = Not available								
¹ For this table, the following responses are not considered a source for condoms: friends, family members and home								

Table 13.16 pertains to the age at first sexual intercourse among the population age 15-24.

Data columns 1 and 5 in Table 13.16 correspond to: Youth Guide *Behavioural* Indicator 16 “Sex before the age of 15.” and to UNGASS *Knowledge and Behaviour* Indicator 15 “Percentage of young women and men 15-24 who have had sexual intercourse before the age of 15”.

The following table is for production of Figure 13.5 and should not be shown in the report. This figure is designed to present trends and therefore is only to be presented when the same type of data are available from earlier surveys. Data from the current survey can be taken from Table 13.16.

Trend in age at first sexual intercourse (Working table for Figure 13.5)		
Percentage of respondents 15-19 who have had sexual intercourse before exact age 15 and percentage of respondents 18-19 who have had sexual intercourse before exact age 18, [country, year]		
	Survey X	Survey X+n
Percentage of WOMEN 15-19 who had sexual intercourse before exact age 15	20	15
Percentage of MEN 15-19 who had sexual intercourse before exact age 15	25	20
Percentage of WOMEN 18-19 who had sexual intercourse before exact age 18	60	55
Percentage of MEN 18-19 who had sexual intercourse before exact age 18	70	65

Figure 13.5
Trend in Age at First Sexual Intercourse

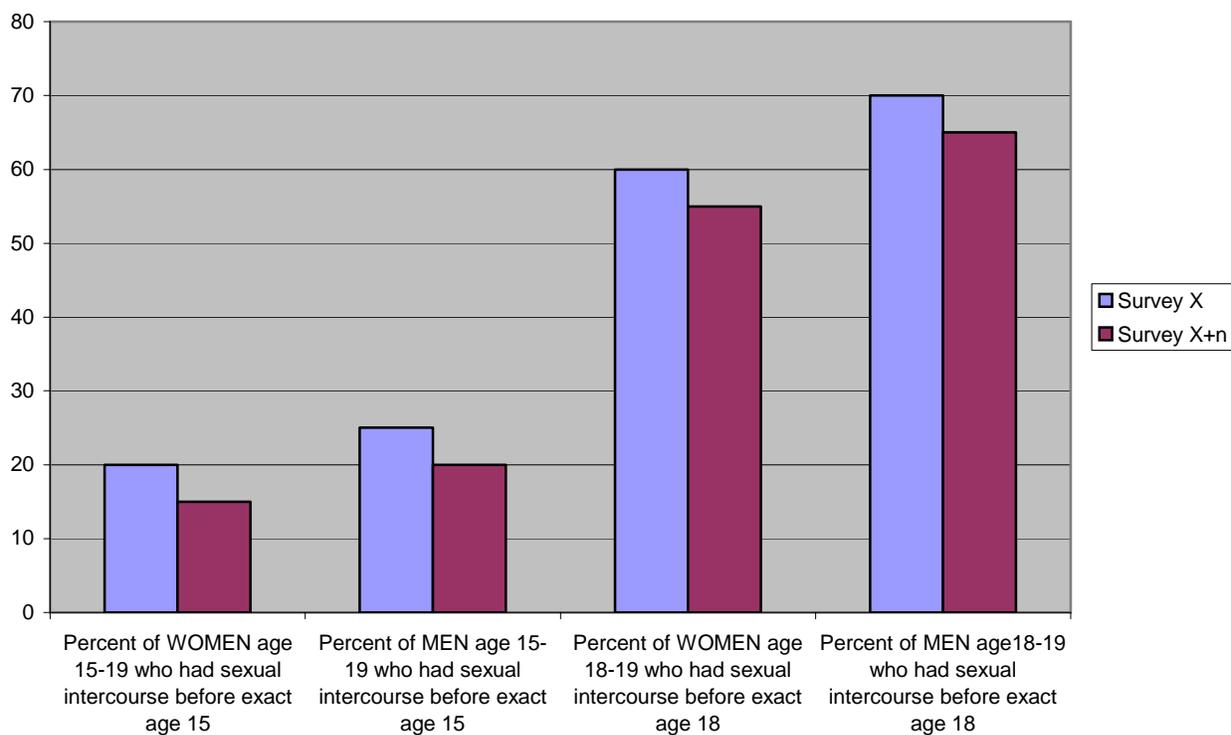


Table 13.17 Condom use at first sexual intercourse among youth

7.3 AIS

Among young women and young men age 15-24 who have ever had sexual intercourse, percentage who used a condom the first time they had sexual intercourse, by background characteristics, [country, year]

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19				
15-17				
18-19				
20-24				
20-22				
23-24				
Marital status				
Never married				
Ever married				
Knows condom source¹				
Yes				
No				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-24				

¹ For this table, the following responses are not considered a source for condoms: friends, family members and home

Table 13.17 pertains to condom use at first sexual intercourse among the population age 15-24.

Data columns 1 and 3 correspond to UNAIDS *Young People's Sexual Behavior* Indicator 6, "Condom use at first sex."

Table 13.18 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

7.4 AIS

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, [country, year]

Background characteristic	Never-married women age 15-24					Never-married men age 15-24				
	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married women	Among women who had sexual intercourse in the past 12 months:		Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married men	Among men who had sexual intercourse in the past 12 months:	
				Percentage who used a condom at last sexual inter-course	Number of women				Percentage who used a condom at last sexual inter-course	Number of men
Age										
15-19										
15-17										
18-19										
20-24										
20-22										
23-24										
Knows condom source¹										
Yes										
No										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Education										
No education										
Primary										
Secondary										
More than secondary										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total 15-24										

¹ For this table, the following responses are not considered a source for condoms: friends, family members and home

Table 13.18 pertains to premarital sexual intercourse and condom use among the population age 15-24.

The following indicators are presented in Table 13.18:

- 1) Data columns 1 and 6 correspond to President’s Emergency Plan for AIDS Relief *Prevention Indicator 2*, “Percent of never-married young men and women age 15-24 who have never had sex.”
- 2) Data columns 2 and 7 correspond to President’s Emergency Plan for AIDS Relief *Prevention Indicator 3*, “Percent of never-married women and men age 15-24 who had sex in the last 12 months.
- 3) Data columns 2 and 7 correspond to UNAIDS *Young People’s Sexual Behavior Indicator 2*, “Young people having premarital sex in last year.”
- 4) Data columns 4 and 9 correspond to UNAIDS *Young People’s Sexual Behavior Indicator 3*, “Young people using a condom during premarital sex.”

Table 13.19.1 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Women					7.5.1 AIS
Among young women age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, [country, year]					
Background characteristic	Among women age 15-24 who had sexual intercourse in the past 12 months:		Among women age 15-24 who had higher-risk intercourse in the past 12 months:		
	Percentage who had higher-risk intercourse in the past 12 months ¹	Number of women	Percentage who reported using a condom at last higher-risk intercourse ¹	Number of women	
Age					
15-19					
15-17					
18-19					
20-24					
20-22					
23-24					
Marital status					
Never married					
Ever-married					
Knows condom source²					
Yes					
No					
Residence					
Urban					
Rural					
Region					
Region 1					
Region 2					
Region 3					
Region 4					
Education					
No education					
Primary					
Secondary					
More than secondary					
Wealth quintile					
Lowest					
Second					
Middle					
Fourth					
Highest					
Total 15-24					
¹ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent					
² For this table, the following responses are not considered a source for condoms: friends, family members and home					

Tables 13.19.1 and 13.19.2 pertain to higher-risk sexual intercourse and condom use among the population age 15-24.

Column 3 of Tables 13.19.1 and 13.19.2 corresponds to Youth Guide *Behavioral* Indicator 17, “Condom use among young people who had higher risk sex in the past year” and UNAIDS *Young People’s Sexual Behavior* Indicator 5, “Young people using a condom at last higher-risk sex”.

Table 13.19.2 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Men

7.5.2 AIS

Among young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, [country, year]

Background characteristic	Among men age 15-24 who had sexual intercourse in the past 12 months:		Among men age 15-24 who had higher-risk intercourse in the past 12 months:	
	Percentage who had higher-risk intercourse in the past 12 months ¹	Number of men	Percentage who reported using a condom at last higher-risk intercourse ¹	Number of men
Age				
15-19				
15-17				
18-19				
20-24				
20-22				
23-24				
Marital status				
Never married				
Ever-married				
Knows condom source²				
Yes				
No				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-24				

¹ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

² For this table, the following responses are not considered a source for condoms: friends, family members and home

The following table is for production of Figure 13.6 and it should not be shown in the report.

Abstinence, Being faithful and condom use (ABC) among young women and men (Working table for Figure 13.6)														
	Denominator:				Numerator:									
Part 1	All young people aged 15-24				Those who have never had sex									
Part 2	All young people aged 15-24				Those who have had sex but not in the last 12 months									
Part 3	All young people aged 15-24				Those who had sex with only one partner in the last 12 months and who used a condom the last time									
Part 4	All young people aged 15-24				Those who had sex with only one partner in the last 12 months and who did not use a condom the last time									
Part 5	All young people aged 15-24				Those who had sex with more than one partner in the last 12 months and who used a condom the last time									
Part 6	All young people aged 15-24				Those who had sex with more than one partner in the last 12 months and who did not use a condom the last time									
		Women						Men						
		15-19		20-24		15-24		15-19		20-24		15-24		
		1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	
Never		45	50	8	13	26.5	31.5	45	50	8	13	26.5	31.5	
Sex not last year		5	5	8	10	6.5	7.5	5	5	8	10	6.5	7.5	
Only 1 partner & condom		5	6	9	10	7	8	5	6	9	10	7	8	
Only 1 partner & no condom		39	34	69	65	54	49.5	39	34	69	65	54	49.5	
>1 partner & condom		1	2	1	0	1	1	1	2	1	0	1	1	
>1 partner & no condom		5	3	5	2	5	2.5	5	3	5	2	5	2.5	

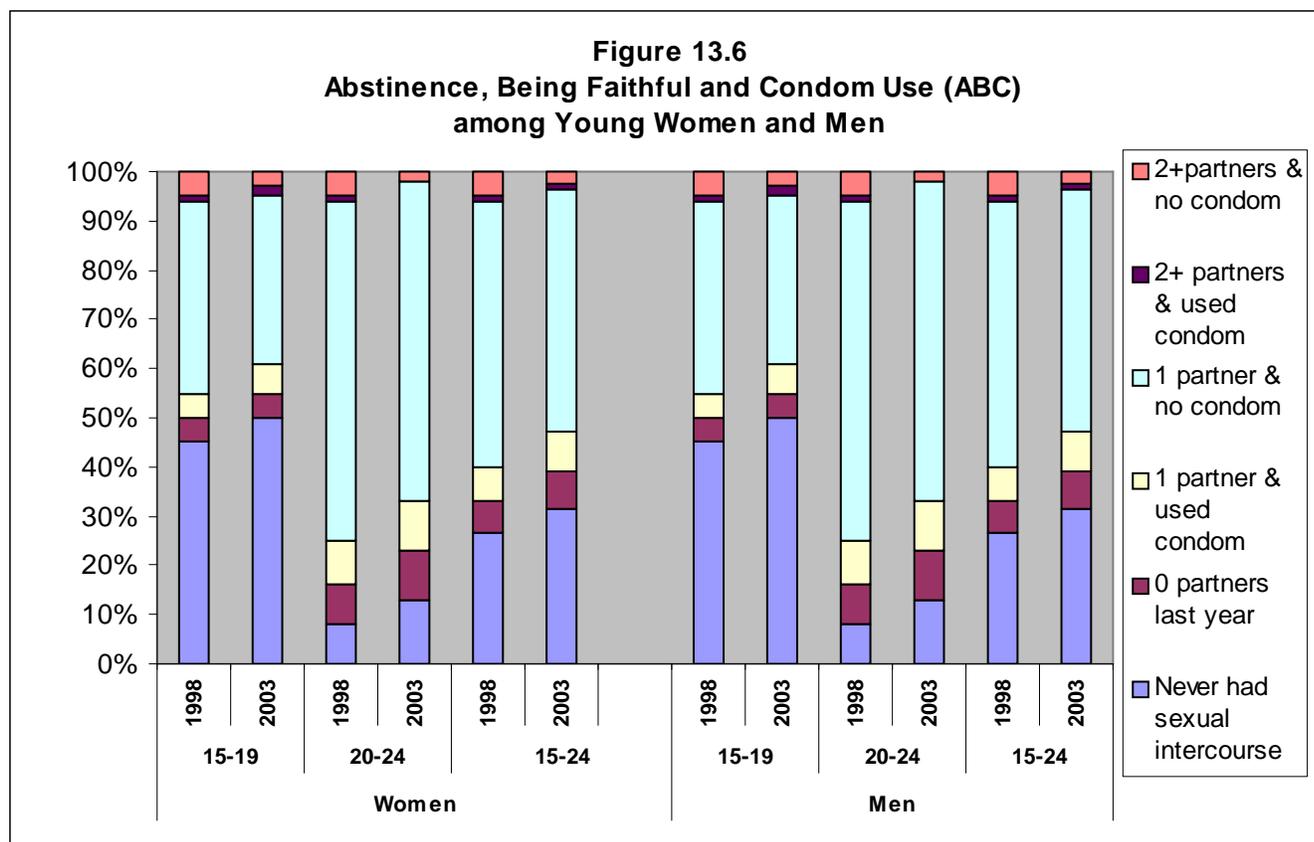


Table 13.20 Age-mixing in sexual relationships among women age 15-19	7.6 AIS	
Percentage of women age 15-19 who had higher-risk sexual intercourse in the last 12 months with a man who was 10 or more years older than themselves, by background characteristics, and percentage of women age 15-24 who had higher-risk sexual intercourse in the last 12 months with a man who was 10 or more years older than themselves [country, year]		
Background characteristic	Percentage of women who had higher-risk intercourse with a man 10+ years older ¹	Number of women who had higher-risk intercourse in the last 12 months ¹
<p>Age 15-17 18-19</p> <p>Marital status Never married Ever-married</p> <p>Knows condom source² Yes No</p> <p>Residence Urban Rural</p> <p>Region Region 1 Region 2 Region 3 Region 4</p> <p>Education No education Primary Secondary More than secondary</p> <p>Wealth quintile Lowest Second Middle Fourth Highest</p> <p>Total 15-19</p> <p>Total 15-24</p>		
<p>¹Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent ²For this table, the following responses are not considered a source for condoms: friends, family members and home</p>		

Table 13.20 pertains to age-mixing in sexual relations among women 15-19.

Column 1 in Table 13.20 corresponds to UNAIDS *Young People's Sexual Behavior* Indicator 7 “Age-mixing in sexual relationships.”

The Youth Guide *Behavioral* Indicator 20 “Age-mixing in sexual partnerships among young women” is calculated on women 15-24 and includes all partners (higher-risk and non-higher-risk partners) who are older by 10 or more years.

Table 13.21 Drunkenness during sexual intercourse among youth

7.7 AIS

Among all young women and young men age 15-24, the percentage who had sexual intercourse in the past 12 months while being drunk and percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk, by background characteristics, [country, year]

Background characteristic	Women age 15-24			Men age 15-24		
	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of women	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of men
Age						
15-19						
15-17						
18-19						
20-24						
20-22						
23-24						
Marital status						
Never married						
Ever-married						
Knows condom source¹						
Yes						
No						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-24						

¹ For this table, the following responses are not considered a source for condoms: friends, family members and home

Table 13.21 pertains to drunkenness during sexual intercourse among the population age 15-24.

Columns 1 and 4 partially correspond to Youth Guide *Behavioral* Indicator 22, “Sex among young people while they are intoxicated.” It differs from the indicator because people under the influence of drugs are not included.

It also corresponds to UNAIDS *Young People’s Sexual Behavior* Indicator 9 “Sex among young people while they are intoxicated.”

Table 13.22 Recent HIV tests among youth

7.8 AIS

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, [country, year]

Background characteristic	Among women age 15-24 who have had sexual intercourse in the past 12 months:		Among men age 15-24 who have had sexual intercourse in the past 12 months:	
	Percentage who have been tested for HIV and received results in the past 12 months	Number of women	Percentage who have been tested for HIV and received results in the past 12 months	Number of men
Age				
15-19				
15-17				
18-19				
20-24				
20-22				
23-24				
Marital status				
Never married				
Ever-married				
Knows condom source¹				
Yes				
No				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-24				

¹ For this table, the following responses are not considered a source for condoms: friends, family members and home

Table 13.22 pertains to HIV testing among the population age 15-24 that had sexual intercourse in the 12 months preceding the survey.

Data columns 1 and 3 correspond to the Youth Guide *Behavioral Indicator 23* "Testing behaviour among young people."

ⁱ “UNAIDS/07.12E / JC1318E”. 2007. Monitoring the Declaration of Commitment on HIV/AIDS : guidelines on construction of core indicators : 2008 reporting. UNAIDS, Geneva. p. 21.

CHAPTER 14

HIV PREVALENCE

This chapter is for surveys where HIV testing has been performed and is primarily based on respondents who received the test. The first two tables report the response rate of testing by background characteristics. It is important to highlight any large differentials in response, which may hint at biases in the estimation of HIV prevalence. If large differentials are present, further tabulations should be made to confirm that the HIV prevalence rates are unbiased or to correct for bias. The remaining tables in the chapter present the HIV prevalence rates by social, economic, demographic, and behavioral characteristics of the tested respondents. Separate tables are also presented for persons aged 15 to 24 years, according to circumcision of men and to ascertain concordance in HIV status among couples.

Four tables to be included in Appendix A (A.3-A.6) with the coverage rates for HIV testing must be produced and analyzed at the same time substantive results are presented in the prevalence chapter.

Table 14.1 Coverage of HIV testing by residence and region

Percent distribution of women age 15-49 and men age 15-54[59] eligible for HIV testing by testing status, according to residence and region (unweighted), [country, year]

Background characteristic	Testing status								Total	Number
	DBS tested ¹		Refused to provide blood		Absent at the time of blood collection		Other/missing ²			
	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed		
WOMEN 15-49										
Residence										
Urban									100.0	
Rural									100.0	
Region									100.0	
Region 1									100.0	
Region 2									100.0	
Region 3									100.0	
Region 4									100.0	
Total									100.0	
MEN 15-54[59]										
Residence										
Urban									100.0	
Rural									100.0	
Region									100.0	
Region 1									100.0	
Region 2									100.0	
Region 3									100.0	
Region 4									100.0	
Total									100.0	
TOTAL (WOMEN 15-49 and MEN 15-54[59])										
Residence										
Urban									100.0	
Rural									100.0	
Region									100.0	
Region 1									100.0	
Region 2									100.0	
Region 3									100.0	
Region 4									100.0	
Total									100.0	
¹ Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.										
² Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) ther lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.										

Table 14.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-54[59] eligible for HIV testing by testing status, according to selected background characteristics (unweighted), [country, year]

Background characteristic	Testing status								Total	Number	
	DBS tested ¹		Refused to provide blood		Absent at the time of blood collection		Other/missing ²				
	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed			
WOMEN 15-49											
Age											
15-19										100.0	
20-24										100.0	
25-29										100.0	
30-34										100.0	
35-39										100.0	
40-44										100.0	
45-49										100.0	
Education											
None										100.0	
Primary										100.0	
Secondary										100.0	
More than secondary										100.0	
Wealth quintile											
Lowest										100.0	
Second										100.0	
Middle										100.0	
Fourth										100.0	
Highest										100.0	
Total										100.0	
MEN 15-54[59]											
Age											
15-19										100.0	
20-24										100.0	
25-29										100.0	
30-34										100.0	
35-39										100.0	
40-44										100.0	
45-49										100.0	
50-54[59]										100.0	
Education											
None										100.0	
Primary										100.0	
Secondary										100.0	
More than secondary										100.0	
Wealth quintile											
Lowest										100.0	
Second										100.0	
Middle										100.0	
Fourth										100.0	
Highest										100.0	
Total										100.0	

¹ Includes all Dried Blood Samples (IDBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

WORKING TABLE Outcome of the lab work				
		Column 1	Column 2	Col. 3=Col. 1/Col.2
		Number of all DBS HIV-1 positive	Number of all DBS with a test result	Prevalence
Row 1	De facto population with interview			
Row 2	De facto population WITHOUT interview			
Row 3	NON DE FACTO population			
Row 4	Total population with a test result	= Row 1+Row 2+Row3	= Row 1+Row 2+Row3	

All DBS samples collected in the field are tested in the lab. However, calculation of prevalence excludes several categories of population: 1) the de facto population WITHOUT an interview (row 2) and 2) the NON DE FACTO population (row 3). The purpose of this table is to assess the potential impact on the prevalence level of excluding these categories. For this purpose, prevalence in Row 1 (“De facto population with interview”, i.e. the population subsequently used to estimate the prevalence) should be compared with the prevalence in Row 4.

Columns 1 (Number of HIV-1 positive) and 3 (Prevalence) include cases that are HIV-1 positive AND both HIV-1 and HIV-2 positive. Cases that are ONLY HIV-2 positive are not included in the prevalence estimate.

Table 14.3 HIV prevalence by age

Among the de facto women age 15-49 and men age 15-54[59] who were interviewed and tested, the percentage HIV-1 positive, by age, [country, year]

Age	Women				Men				Total			
	Percent- age HIV-1 positive	Percent- age HIV-2 positive	Percent- age HIV-1 or HIV-2 positive	Number	Percent- age HIV-1 positive	Percent- age HIV-2 positive	Percent- age HIV-1 or HIV-2 positive	Number	Percent- age HIV-1 positive	Percent Age HIV-2 positive	Percent- age HIV-1 or HIV-2 positive	Number
15-19												
20-24												
25-29												
30-34												
35-39												
40-44												
45-49												
50-54[59]	na	na	na	na					na	na	na	na
Total age 15-49												
Total age 15-54[59]	na	na	na	na					na	na	na	na
na = Not applicable												

For each major category of respondents (Women, Men, and Total), the first column (Percentage HIV-1 positive) includes cases that are HIV-1 positive AND both HIV-1 and HIV-2 positive. This is the indicator of prevalence to be used in the DHS (or AIS) reports. The column “Percentage HIV-2 positive” includes cases that are ONLY HIV-2 positive.

If men 50+ are interviewed, they are included in this table. All subsequent tables (excluding Table 14.11 and 14.12) are based on women and men age 15-49. In countries where only men age 15-49 are tested, the lines for “50-54[59]” and for “Total men age 15-54[59]” should be omitted.

In countries where HIV-2 is low or was not measured, the corresponding columns are omitted. In countries where only men 15-49 are tested and where HIV-2 is low or not measured, Table 14.3 may be combined with Table 14.4.

WORKING TABLE Detailed results of the testing algorithm																		
Total number of DBS with a test result and with an interview (de facto population)																		
ELISA 1	N HIV+									N HIV-								
ELISA 2	N HIV+	N HIV-							N HIV-	N HIV+								
Repeat ELISA 1		N HIV+	N HIV-	N HIV+			N HIV-				N HIV-	N HIV+	N HIV-			N HIV+		
Repeat ELISA 1		N HIV+	N HIV-	N HIV-			N HIV+				N HIV-	N HIV+	N HIV+			N HIV-		
Western Blot				N HIV+	N HIV-	N HIV?	N HIV+	N HIV-	N HIV?				N HIV-	N HIV+	N HIV?	N HIV-	N HIV+	N HIV?

This table should be adapted to correspond to the country algorithm. The table is based on the total number of Dried Blood Samples (DBS) with a test result and with an interview (de facto population), i.e. the denominator used to calculate the prevalence.

Table 14.4 HIV prevalence by socioeconomic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socioeconomic characteristics, [country, year]

Background characteristic	Women		Men		Total	
	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
Ethnicity						

Religion						

No religion						
Employment (last 12 months)						
Not employed						
Employed						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
None						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]	na	na			na	na
Total 15-54[59]	na	na			na	na

na = not applicable

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

The footnote should be deleted in countries where HIV-2 is not measured.

Categories for “Ethnicity” and “Religion” are to be determined by the response categories of the survey.

Table 14.5 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, [country, year]

Demographic characteristic	Women		Men		Total	
	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
Marital status						
Never married						
Ever had sexual intercourse						
Never had sexual intercourse						
Married/living together						
Divorced or separated						
Widowed						
Type of union						
In polygynous union						
Not in polygynous union						
Not currently in union						
Times slept away from home in last 12 months						
None						
1-2						
3-4						
5+						
Time away in last 12 months						
Away for more than 1 month						
Away only for less than 1 month						
Not away						
Currently pregnant						
Pregnant			na	na	na	na
Not pregnant or not sure			na	na	na	na
ANC for last birth in last 3 years						
ANC provided by the public sector			na	na	na	na
ANC provided by other than the public sector			na	na	na	na
No ANC/no birth in last 3 years			na	na	na	na
Male circumcision						
Circumcised	na	na			na	na
Not circumcised	na	na			na	na
Total 15-49						
50-54[59]	na	na			na	na
Total 15-54[59]	na	na			na	na

na = Not applicable

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

‘Type of union’ to be included only in countries where polygamy is practiced.

The footnote should be deleted in countries where HIV-2 is not measured.

The percentage HIV positive for pregnant women corresponds to UNAIDS Health and Social Impact Indicator 1 “HIV prevalence among pregnant women.”

Table 14.6 HIV prevalence by sexual behavior

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behavior characteristics, [country, year]

Sexual behavior characteristic	Women		Men		Total	
	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
Age at first sexual intercourse						
<16						
16-17						
18-19						
20+						
Higher-risk intercourse in last 12 months²						
Had higher- risk intercourse						
Had sexual intercourse, not higher risk						
No sexual intercourse in last 12 months						
Number of sexual partners in last 12 months						
0						
1						
2						
3+						
Number of higher-risk partners in last 12 months³						
0						
1						
2						
3						
Condom use						
Ever used a condom						
Never used a condom						
Condom use at last sexual intercourse in last 12 months						
Used condom						
Did not use condom						
No sexual intercourse in last 12 months						
Condom use at last higher-risk intercourse in last 12 months²						
Used condom						
Did not use condom						
No higher risk intercourse/no intercourse in the last 12 months						
Number of lifetime partners						
1						
2						
3-4						
5-9						
10+						
Paid for sexual intercourse in last 12 months⁴						
Yes	na	na			na	na
Used condom	na	na			na	na
Did not use condom	na	na			na	na
No/no sexual intercourse in last 12 months	na	na			na	na
Total 15-49						
50-54[59]	na	na			na	na
Total 15-54[59]	na	na			na	na

na = Not applicable

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

² Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

³ A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the last 12 months

⁴ Includes men who report having a prostitute for at least one of their last three sexual partners in the last 12 months

Categories for the variable 'Number of lifetime partners' should be defined on a country-specific basis after reviewing the frequency distribution of this variable; however, categories 1 and 2 must be maintained.

Footnote 1 should be deleted in countries where HIV-2 is not measured.

Table 14.7 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, [country, year]

Background characteristic	Women		Men		Total	
	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
Age						
15-19						
15-17						
18-19						
20-24						
20-22						
23-24						
Marital status						
Never married						
Ever had sex						
Never had sex						
Married/living together						
Widowed/divorced/separated						
Currently pregnant						
Pregnant			na	na	na	na
Not pregnant or not sure			na	na	na	na
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
None						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-24						

na = Not applicable

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

The footnote should be deleted in countries where HIV-2 is not measured.

Old Table 14.7 has been divided in two tables (14.7 and 14.8). Table 14.7 is based on all young people, while Table 14.8 is based on young people who have ever had sex.

Table 14.8 HIV prevalence among young people by sexual behavior

Percentage HIV positive among women and men age 15-24 who ever have ever had sex and were tested for HIV, by sexual behavior, [country, year]

Sexual behavior characteristic	Women		Men		Total	
	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
Relative age of first sexual partner						
10+ years older			na	na	na	na
<10 years older/same age/ younger/DK			na	na	na	na
Higher-risk intercourse in last 12 months²						
Had higher-risk intercourse						
Had intercourse, not higher risk						
No sexual intercourse in last 12 months						
Number of sexual partners in last 12 months						
0						
1						
2+						
Number of higher-risk partners in last 12 months³						
0						
1						
2+						
Condom use						
Ever used a condom						
Never used a condom						
Condom use at first sex						
Used a condom						
Did not use a condom						
Condom use at last sex in last 12 months						
Used condom at last sex						
Did not use condom						
No sexual intercourse in last 12 months						
Total 15-24						

na = Not applicable

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

² Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

³ A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the last 12 months

The footnote should be deleted in countries where HIV-2 is not measured.

Table 14.8 is based on young people who have ever had sex. The sexual behavior characteristics are the same as in earlier version of Table 14.7, however, the order of the characteristics has been changed.

Table 14.9 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who have ever had sex and were tested for HIV, by whether had an STI in the past 12 months and by prior testing for HIV, [country, year]

Characteristic	Women		Men		Total	
	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms			na	na	na	na
No STI, no symptoms			na	na	na	na
Prior HIV testing						
Ever tested						
Received results						
Did not receive results						
Never tested						
Total 15-49						

na = Not applicable

¹HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

The footnote should be deleted in countries where HIV-2 is not measured.

Table 14.10 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 who tested HIV positive and who tested HIV negative by HIV testing status prior to the survey, [country, year]

HIV testing prior to the survey	Women		Men		Total	
	HIV positive ¹	HIV negative	HIV positive ¹	HIV negative	HIV positive ¹	HIV negative
Previously tested						
Received result of last test						
Did not receive result of last test						
Not previously tested						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number						

¹HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

The footnote should be deleted in countries where HIV-2 is not measured.

Table 14.11 HIV prevalence by male circumcision

Among men age 15-49 who were tested for HIV, the percentage HIV positive by whether circumcised, according to background characteristics, [country, year]

Background characteristic	Circumcised		Uncircumcised	
	Percentage HIV positive ¹	Number of men	Percentage HIV positive ¹	Number of men
Age				
15-19				
20-24				
25-29				
30-34				
35-39				
40-44				
45-49				
Ethnicity				

Religion				

No religion				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
None				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-49				
50-54[59]				
Total 15-54[59]				

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

Prevalence of circumcision—which is based on all men interviewed rather than those tested for HIV—appears in Chapter 13 of the DHS tabulation plan (Table 13.12). Table 14.11 should only appear in the survey report if the unweighted number in the categories circumcised and uncircumcised men are both sufficient (i.e., > 200 each).

Categories for “Ethnicity” and “Religion” are to be determined by the response categories of the survey. The footnote should be deleted in countries where HIV-2 is not measured.

Table 14.12 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by the HIV status, according to background characteristics, [country, year]

Background characteristic	Both HIV positive ¹	Man HIV positive, woman HIV negative ¹	Woman HIV positive, man HIV negative ¹	Both HIV negative ¹	Total	Number
Woman's age						
15-19					100.0	
20-29					100.0	
30-39					100.0	
40-49					100.0	
Man's age						
15-19					100.0	
20-29					100.0	
30-39					100.0	
40-49					100.0	
50-54 [50-59]					100.0	
Age difference between partners						
Woman older					100.0	
Same age/man older by 0-4					100.0	
Man older by 5-9 years					100.0	
Man older by 10-14 years					100.0	
Man older by 15+ years					100.0	
Type of union						
Monogamous					100.0	
Polygynous					100.0	
Residence						
Urban					100.0	
Rural					100.0	
Region						
Region 1					100.0	
Region 2					100.0	
Region 3					100.0	
Region 4					100.0	
Woman's education						
None					100.0	
Primary					100.0	
Secondary					100.0	
More than secondary					100.0	
Man's education						
None					100.0	
Primary					100.0	
Secondary					100.0	
More than secondary					100.0	
Wealth quintile						
Lowest					100.0	
Second					100.0	
Middle					100.0	
Fourth					100.0	
Highest					100.0	
Total couples					100.0	

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners.

¹ HIV positive refers only to individuals infected with HIV-1, including those infected with both HIV-1 and HIV-2. Individuals infected with HIV-2 only are not counted as HIV positive when calculating the numerator of the percentages.

Couples include women 15-49 and men 15-54[59]. The text referring to this table should explain how couples are defined, especially in the case of polygynous unions. The footnote should be deleted in countries where HIV-2 is not measured.

CHAPTER 15

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

This chapter shows information on indicators of women's empowerment, develops three empowerment indices, and relates those indices to select demographic and health outcomes.

The DHS Woman's Questionnaire collects data on the general background characteristics of female respondents (e.g., age, education, wealth quintile and employment status) and also data more specific to women's empowerment such as receipt of cash earnings, the magnitude of a woman's earnings relative to those of her husband, control over the use of a her own earnings and those of her husband. The chapter tabulates these indicators of woman's empowerment according to the general background characteristics of female respondents.

The Woman's Questionnaire also collects data on a woman's participation in household decision making, on the circumstances under which she feels that a woman is justified in refusing to have sexual intercourse with her husband, and on her attitude toward wife beating. Three separate indices of empowerment are developed based on the number of household decisions in which the respondent participates, her opinion on the number of reasons that justify wife beating, and her opinion on the number of circumstances for which a woman is justified in refusing to have sexual intercourse with her husband. The ranking of women on these three indices is then related to selected demographic and health outcomes including contraceptive use, ideal family size and unmet need for contraception as well as the receipt of health care services during pregnancy, at delivery and in the postnatal period. In addition, survivorship of children is tabulated by the ranking of their mothers on the indices.

Table 15.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the last 12 months and the percent distribution of currently married women and men employed in the last 12 months by type of earnings, according to age, [country, year]

Age	Among currently married respondents:		Percent distribution of currently married respondents employed in last 12 months, by type of earnings						Total	Number of respondents
	Percentage employed	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Missing/don't know			
WOMEN										
15-19									100.0	
20-24									100.0	
25-29									100.0	
30-34									100.0	
35-39									100.0	
40-44									100.0	
45-49									100.0	
Total									100.0	
MEN										
15-19									100.0	
20-24									100.0	
25-29									100.0	
30-34									100.0	
35-39									100.0	
40-44									100.0	
45-49									100.0	
Total 15-49									100.0	
50-54[59]									100.0	
Total 15-54[59]									100.0	

The table shows the percent of currently married women and men who were employed at any time during the 12 months preceding the survey and the percent distribution of those employed in the 12 months preceding the survey by the type of earnings they received (cash, in-kind, or both).

Table 15.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, [country, year]

Background characteristic	Person who decides how wife's cash earnings are used:				Total	Wife's cash earnings compared with husband's cash earnings:					Total	Number of women	
	Mainly wife	Wife and husband jointly	Mainly Husband	Other		More	Less	About the same	Husband has no earnings	Don't know			
Age													
15-19					100.0						100.0		
20-24					100.0						100.0		
25-29					100.0						100.0		
30-34					100.0						100.0		
35-39					100.0						100.0		
40-44					100.0						100.0		
45-49					100.0						100.0		
Number of living children													
0					100.0						100.0		
1-2					100.0						100.0		
3-4					100.0						100.0		
5+					100.0						100.0		
Residence													
Urban					100.0						100.0		
Rural					100.0						100.0		
Region													
Region 1					100.0						100.0		
Region 2					100.0						100.0		
Region 3					100.0						100.0		
Region 4					100.0						100.0		
Education													
No education					100.0						100.0		
Primary					100.0						100.0		
Secondary					100.0						100.0		
More than secondary					100.0						100.0		
Wealth quintile													
Lowest					100.0						100.0		
Second					100.0						100.0		
Middle					100.0						100.0		
Fourth					100.0						100.0		
Highest					100.0						100.0		
Total					100.0						100.0		

Employed women who earned cash for their work were asked the relative magnitude of their earnings in comparison to their husband's earnings. In addition, they were asked who the main decision maker is with regard to the use of their earnings. This information has implications for the empowerment of women. It is expected that employment and earnings are more likely to empower women if women themselves control their own earnings and perceive their earnings as significant relative to those of their husband.

Table 15.2.1 shows, for currently married women who had cash earnings in the past 12 months, their control over their own earnings and their perception of the magnitude of their earnings relative to those of their husband.

In previous DHS, both married and unmarried women were asked who controls respondent's cash earnings. Now only married women are asked about cash earnings (Q820-Q822).

Table 15.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, according to background characteristics, [country, year]

Background characteristic	Men						Women					
	Person who decides how husband's cash earnings are used:					Number of men	Person who decides how husband's cash earnings are used:					Number of women
	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total		Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	
Age												
15-19					100.0						100.0	
20-24					100.0						100.0	
25-29					100.0						100.0	
30-34					100.0						100.0	
35-39					100.0						100.0	
40-44					100.0						100.0	
45-49					100.0						100.0	
Number of living children												
0					100.0						100.0	
1-2					100.0						100.0	
3-4					100.0						100.0	
5+					100.0						100.0	
Residence												
Urban												
Rural					100.0						100.0	
					100.0						100.0	
Region												
Region 1												
Region 2					100.0						100.0	
Region 3					100.0						100.0	
Region 4					100.0						100.0	
					100.0						100.0	
Education												
No education												
Primary					100.0						100.0	
Secondary					100.0						100.0	
More than secondary					100.0						100.0	
					100.0						100.0	
Wealth quintile												
Lowest					100.0						100.0	
Second					100.0						100.0	
Middle					100.0						100.0	
Fourth					100.0						100.0	
Highest					100.0						100.0	
Total 15-49					100.0						100.0	
50-54[59]					100.0		na	na	na	na	na	
Total 15-54[59]					100.0		na	na	na	na	na	

na = Not applicable

Table 15.3 Women's control over her own earnings and over those of her husband

Percent distributions of currently married women age 15-49 with cash earnings in the last 12 months by person who decides how the wife's cash earnings are used and of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, [country, year]

Women's earnings relative to husband's earnings	Person who decides how the wife's cash earnings are used:					Number of women	Person who decides how husband's cash earnings are used					Number of women
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total		Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	
More than husband					100.0						100.0	
Less than husband					100.0						100.0	
Same as husband					100.0						100.0	
Husband has no cash earnings or did not work					100.0	na	na	na	na	na	na	
Woman worked but has no cash earnings	na	na	na	na	na						100.0	
Woman did not work					100.0						100.0	

na =not applicable
¹Includes cases where a woman does not know whether she earned more or less than her husband

This table shows, for currently married women who earned cash in the past 12 months, the person who decides how their cash earnings are used and for currently married women whose husbands earn cash, the person who decides how their husband's cash earnings are used according to the relative magnitude of the earnings of women and their husband. In particular, it shows whether the person who decides how women's own earnings are used and the person who decides how her husband's earnings are used are each affected and vary by whether the woman works and by the magnitude of women's earnings relative to those of her husband.

In previous DHS, both married and not married women were asked who controls respondent's cash earnings. In DHS-5 only married women are asked.

Table 15.4.1 Women's participation in decision making

Percent distribution of currently married women age 15-49 by person who usually makes decisions about four kinds of issues, [country, year]

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Total	Number of women
Own health care						100.0	
Major household purchases						100.0	
Purchases for daily household needs						100.0	
Visits to her family or relatives						100.0	

In order to assess women's decision making autonomy, information was collected on women's participation in four different types of decisions: on the respondent's own health care, on making large household purchases, on making household purchases for daily needs, and on visits to family friends or relatives. The table shows the percent distribution of women according to the person in the household who usually makes decisions concerning these matters. The ability of women to make decisions that affect the circumstances of their own lives is an essential aspect of empowerment.

In previous DHS, both married and not married women were asked about participation in decision making (Q719). Currently, only currently married women are asked about decision making (Q823).

Table 15.4.2 Women's participation in decision making according to men

Percent distribution of currently married men 15-49 by person who they think should have a greater say in making decisions about five kinds of issues, [country, year]

Decision	Wife	Wife and husband equally	Husband	Don't know/depends	Total	Number of men
Major household purchases					100.0	
Purchases for daily household needs					100.0	
Visits to wife's family or relatives					100.0	
What to do with the money the wife earns					100.0	
How many children to have					100.0	

Table 15.5.1 Women's participation in decision making by background characteristics

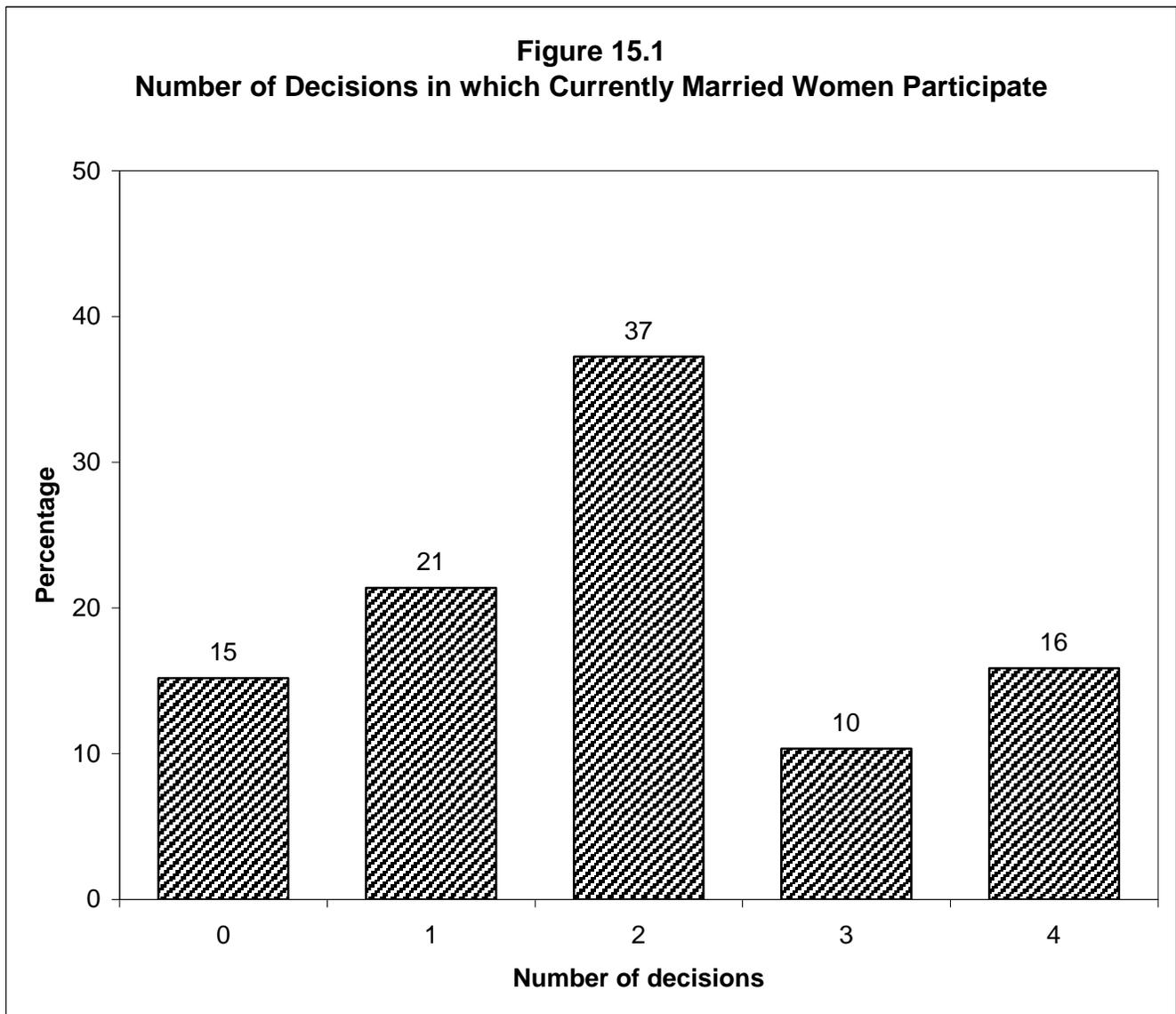
Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, [country, year]

Background characteristic	Specific decisions				Percentage who participate in all four decisions	Percentage who participate in none of the four decisions	Number of women
	Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives			
Age							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
Employment (last 12 months)							
Not employed							
Employed for cash							
Employed, not for cash							
Number of living children							
0							
1-2							
3-4							
5+							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							

The table shows how participation in household decision making varies by background characteristics. Women are considered to participate in a decision if they alone or jointly with their husband have the final say in that decision.

Only currently married women are asked about decision making (Q823).

Figure 15.1
Number of Decisions in which Currently Married Women Participate



Women may have a say in some and not in other decisions. To assess a woman's overall decision-making autonomy, the decisions in which she participates (i.e., she alone has the final say or does so jointly with her husband) are added together. The total number of decisions a woman participates in is one simple measure of her empowerment. Figure 15.1 gives the percentage of currently married women according to the number of decisions in which they participate.

Table 15.5.2 Men's attitude toward wives' participation in decision making

Percentage of currently married men age 15-49 who think a wife should have the greater say alone or equal say with her husband on five specific kinds of decisions, by background characteristics, [country, year]

Background characteristic	Specific decision					All five decisions	None of the five decisions	Number of men
	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	What to do with the money the wife earns	How many children to have			
Age								
15-19								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
Employment (last 12 months)								
Not employed								
Employed for cash								
Employed, not for cash								
Number of living children								
0								
1-2								
3-4								
5+								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Education								
No education								
Primary								
Secondary								
More than secondary								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total 15-49								
50-54[59]								
Total 15-54[59]								

Table 15.6.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, [country, year]

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of women
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
Employment (last 12 months)							
Not employed							
Employed for cash							
Employed, not for cash							
Number of living children							
0							
1-2							
3-4							
5+							
Marital status							
Never married							
Married or living together							
Divorced/separated/widowed							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							

The table shows women’s attitudes toward wife beating in five specific circumstances. Women who believe that a husband is justified in hitting or beating his wife for any of the specified reasons may believe themselves to be low in status both absolutely and relative to men. Such a perception could act as a barrier to accessing health care for themselves and their children, could affect their attitude toward contraceptive use and impact their general well being.

Table 15.6.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, [country, year]

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of men
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
Employment (last 12 months)							
Not employed							
Employed for cash							
Employed, not for cash							
Number of living children							
0							
1-2							
3-4							
5+							
Marital status							
Never married							
Married or living together							
Divorced/separated/widowed							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Education							
No education							
Primary							
Secondary							
More than secondary							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total 15-49							
50-54[59]							
Total 15-54[59]							

Table 15.7.1 Attitude toward refusing sexual intercourse with husband: Women

Percentage of all women age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, [country, year]

Background characteristic	Wife is justified in refusing intercourse with her husband if she:			Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of women
	Knows husband has a sexually transmitted disease	Knows husband has intercourse with other women	Is tired or not in the mood			
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Employment (last 12 months)						
Not employed						
Employed for cash						
Employed, not for cash						
Marital status						
Never married						
Married or living together						
Divorced/separated/widowed						
Number of living children						
0						
1-2						
3-4						
5+						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total						

The extent of control women have over when they have sexual intercourse has important implications for demographic and health outcomes. It is also an indicator of women’s empowerment because it measures women’s degree of acceptance of norms in certain societies that socialize women into believing that a woman does not have the right to refuse to have sexual intercourse with her husband for any reason.

DHS surveys include a question on whether the respondent thinks that a wife is justified in refusing to have sexual intercourse with her husband under three circumstances: she knows her husband has a sexually transmitted disease (STD); she knows her husband has sexual intercourse with other women; and when she is tired or not in the mood. These three circumstances for which women’s opinions are sought have been chosen because they are effective in combining issues of women’s rights and consequences for women’s health. Table 15.7 shows the percentages of women who say that a wife

is justified in refusing to have sexual intercourse with her husband for these reasons according to background characteristics.

Table 15.7.2 Attitude toward refusing sexual intercourse with husband: Men

Percentage of all men age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, [country, year]

Background characteristic	Wife is justified in refusing intercourse with her husband if she:			Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of men
	Knows husband has a sexually transmitted disease	Knows husband has intercourse with other women	Is tired or not in the mood			
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Employment (last 12 months)						
Not employed						
Employed for cash						
Employed, not for cash						
Marital status						
Never married						
Married or living together						
Divorced/separated/widowed						
Number of living children						
0						
1-2						
3-4						
5+						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]						
Total 15-54[59]						

Table 15.7.3 Men's attitude towards a husband's rights when his wife refuses to have sexual intercourse

Percentage of men age 15-49 who consider that a husband has the right to certain behaviors when a woman refuses to have sex with him when he wants her to, by background characteristics, [country, year]

Background characteristic	When a woman refuses to have sex with her husband, he has the right to:			Percentage who agree with all of the specified behaviors	Percentage who agree with none of the specified behaviors	Number of men
	Get angry and reprimand her	Refuse her financial support	Use force to have sex			
Age						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
Employment (last 12 months)						
Not employed						
Employed for cash						
Employed, not for cash						
Marital status						
Never married						
Married or living together						
Divorced/separated/widowed						
Number of living children						
0						
1-2						
3-4						
5+						
Residence						
Urban						
Rural						
Region						
Region 1						
Region 2						
Region 3						
Region 4						
Education						
No education						
Primary						
Secondary						
More than secondary						
Wealth quintile						
Lowest						
Second						
Middle						
Fourth						
Highest						
Total 15-49						
50-54[59]						
Total 15-54[59]						

Table 15.8 Indicators of women's empowerment					
Percentage of women age 15-49 who participate in all decision making, percentage who disagree with all of the reasons justifying wife-beating, and percentage who agree with all the reasons for refusing sexual intercourse with husband, by value on each of the indicators of women's empowerment, [country, year]					
Empowerment indicator	Currently married women		Percentage who disagree with all the reasons justifying wife-beating	Percentage who agree with all the reasons for refusing sexual intercourse with husband	Number of women
	Percentage who participate in all decision making ¹	Number of women			
Number of decisions in which women participate¹					
0	na	na			
1-2	na	na			
3-4	na	na			
Number of reasons for which wife beating is justified²					
0			na		
1-2			na		
3-4			na		
5			na		
Number of reasons given for refusing to have sexual intercourse with husband³					
0				na	
1-2				na	
3				na	

¹ Restricted to currently married women. See Table 15.5.1 for the list of decisions.

² See Table 15.6.1 for the list of reasons

³ See Table 15.7.1 for the list of reasons

The three sets of empowerment indicators, namely women's participation in making household decisions, their attitude toward refusing sexual intercourse with their husband, and their attitude toward wife beating can be summarized into three separate indices. The first index shows the number of decisions (see Table 15.5.1 for the list of decisions) in which women participate alone or jointly with their husband. This index ranges in value from 0 to 4 and is positively related to women's empowerment. It reflects the degree of decision-making control that women are able to exercise in areas that affect their own lives and environments.

The second indicator, which ranges in value from 0 to 5, is the total number of reasons (see Table 15.7 for the list of reasons) for which the respondent feels that a husband is justified in beating his wife. A lower score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem and a higher status of women.

The final indicator, which ranges in value from 0 to 3, is the number of circumstances (see Table 15.6 for the list of the circumstances) in which the respondent feels that a woman is justified in refusing sexual intercourse with her husband. This indicator reflects perceptions of sexual roles and women's rights over their bodies and relates positively to women's sense of self and empowerment.

Table 15.8 shows how these three indicators relate to each other. In general, the expectation is that women who participate in making household decisions are also more likely to have gender-egalitarian beliefs.

Table 15.9 Current use of contraception by women's status										
Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, [country, year]										
Empowerment indicator	Modern methods								Total	Number of women
	Any method	Any modern method	Female sterilization	Male sterilization	Temporary modern female methods ¹	Male condom	Any traditional method	Not currently using		
Number of decisions in which women participate²										
0										100.0
1-2										100.0
3-4										100.0
Number of reasons for which wife beating is justified³										
0										100.0
1-2										100.0
3-4										100.0
5										100.0
Number of reasons given for refusing to have sexual intercourse with husband⁴										
0										100.0
1-2										100.0
3										100.0
Total										100.0

Note: If more than one method is used, only the most effective method is considered in this tabulation.
¹ Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly and lactational amenorrhea method
² See Table 15.5.1 for the list of decisions.
³ See Table 15.6.1 for the list of reasons
⁴ See Table 15.7.1 for the list of reasons

A woman's ability to control her fertility and the contraceptive method she chooses are likely to be affected by her status, self-image, and sense of empowerment. A woman who feels that she is unable to control other aspects of her life may be less likely to feel she can make and carry out decisions on her fertility. She may also feel the need to choose methods that are less likely to be evident or which do not depend on her husband's cooperation.

Table 15.10 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, [country, year]

Empowerment indicator	Mean ideal number of children ¹	Number of women	Percentage of currently married women with an unmet need for family planning ²			Number of Currently married women
			For spacing	For limiting	Total	
Number of decisions in which women participate³						
0						
1-2						
3-4						
Number of reasons for which wife beating is justified⁴						
0						
1-2						
3-4						
5						
Number of reasons given for refusing to have sexual intercourse with husband⁵						
0						
1-2						
3						
Total						

¹ Mean excludes respondents who gave non-numeric responses.

² See Table 7.3.1 for the definition of unmet need for family planning

³ Restricted to currently married women. See Table 15.5.1 for the list of decisions.

⁴ See Table 15.6.1 for the list of reasons

⁵ See Table 15.7.1 for the list of reasons

The number of decisions in which a woman has the final say is indicative of women's empowerment and reflects the degree of decision-making control women are able to exercise in areas that affect their lives. The indicator "Number of reasons for which wife beating is justified" has an inverse association with a woman's greater sense of entitlement, self-esteem, and status and therefore her level of empowerment. The number of reasons a wife can refuse to have sexual intercourse with her husband reflects perceptions of sexual roles and of women's rights over their bodies and also indicates women's sense of self and empowerment.

An increase in women's status and empowerment is recognized as important for efforts to reduce fertility through at least two main pathways: 1) desired family size decreases as women become more empowered and 2) empowerment increases a woman's ability to meet family-size goals through the effective use of contraception. The table shows how women's ideal family size and their unmet need for family planning vary by the three indicators of women's empowerment—number of decisions in which the respondent has the final say, number of reasons for which the respondent feels a husband is justified in beating his wife, and number of reasons for which a woman can refuse to have sexual intercourse with her husband.

Table 15.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, [country, year]

Empowerment indicator	Received antenatal care from health personnel	Received delivery assistance from health personnel	Received postnatal care from health personnel within the first two days since delivery ¹	Number of women with a child born in the last five years
Number of decisions in which women participate²				
0				
1-2				
3-4				
Number of reasons for which wife beating is justified³				
0				
1-2				
3-4				
5				
Number of reasons given for refusing to have sexual intercourse with husband⁴				
0				
1-2				
3				
Total				

Note: 'Health personnel' includes doctor, nurse, midwife, or auxiliary nurse or auxiliary midwife.
¹ Includes deliveries in a health facility and not in a health facility.
² Restricted to currently married women. See Table 15.5.1 for the list of decisions.
³ See Table 15.6.1 for the list of reasons
⁴ See Table 15.7.1 for the list of reasons

This table examines whether women's use of antenatal, delivery and postnatal care services from health workers varies by their level of empowerment as measured by the three indicators of empowerment. In societies where health care is widespread, women's empowerment may not affect their access to reproductive health services; in other societies, however, increased empowerment of women is likely to increase in their ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood.

Table 15.12 Early childhood mortality rates by indicators of women's empowerment			
Infant, child, and under-five mortality rates for the 10-year period preceding the survey, by indicators of women's empowerment, [country, year]			
Empowerment indicator	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
Number of decisions in which women participate¹			
0			
1-2			
3-4			
Number of reasons for which wife beating is justified²			
0			
1-2			
3-4			
5			
Number of reasons given for refusing to have sexual intercourse with husband³			
0			
1-2			
3			
Total			
¹ Restricted to currently married women. See Table 15.5.1 for the list of decisions.			
³ See Table 15.6.1 for the list of reasons			
² See Table 15.7.1 for the list of reasons			

The ability to access information, take decisions, and act effectively in their own interest or in the interests of those who depend on them are essential aspects of empowerment of women. It follows that if women, who are the primary caretakers of children, are empowered, the health and survival of their children would be enhanced. In fact, mother's empowerment fits into the Mosley-Chen framework on child survival as an intervening individual-level variable that affects child survival through proximate determinants. This table shows information on the impact on infant and child mortality of women's empowerment, as measured by three specific indicators—participation in household decision making, agreement with reasons for justifying wife beating, and circumstances that justify a wife to refuse to have sexual intercourse with her husband.

CHAPTER 16

ORPHANS AND VULNERABLE CHILDREN CARE & SUPPORT

This chapter is used in countries where the questionnaires include the questions from the Orphans and Vulnerable Children's (OVC) Care and Support module. The tables are based on multi-organization agreements and internationally accepted indicators and should only be modified where necessary to take into account insufficient numbers of cases for presenting results. Additional background characteristics may be added, however.

Table 16.1 Children's living arrangements and orphanhood

Percent distribution of de jure children under 18 years of age by living arrangements and survival status of parents, and the percentage of children not living with a biological parent, according to background characteristics, [country, year]

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent			Missing information on father or mother	Total	Percentage not living with a biological parent	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive				
Age												
0-4										100.0		
<2										100.0		
2-4										100.0		
5-9										100.0		
10-14										100.0		
15-17										100.0		
Sex												
Male										100.0		
Female										100.0		
Residence												
Urban										100.0		
Rural										100.0		
Region												
Region 1										100.0		
Region 2										100.0		
Region 3										100.0		
Region 4										100.0		
Wealth quintile												
Lowest										100.0		
Second										100.0		
Middle										100.0		
Fourth										100.0		
Highest										100.0		
Total <15										100.0		
Total <18										100.0		

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

This table gives information relevant to children's living arrangements and orphanhood for children under 18 years of age. In the text it is also important to discuss the percentage of children with only one parent dead, since this is sometimes used to assess the orphanhood situation.

When Chapter 16 is not included in the survey report, Table 2.3 in Chapter 2 should be included in the report.

Table 16. 2 Orphans and vulnerable children (OVC)

Percentage of de jure children under age 18 years who are orphans or made vulnerable due to illness among adult household members, according to background characteristics, [country, year]

Background characteristic	Orphan children	Percentage of children who:		Vulnerable children	OVC children	Number of children
	Percentage of children with one or both parents dead	Have a very sick parent for at least 3 months in the past 12 months ¹	Live in a household where at least 1 adult has been very sick for at least 3 months in the past 12 months ²	Live in a household where at least 1 adult died in the past 12 months and had been very sick for at least 3 months before he/she died ²	Percentage of children who have a very sick parent OR live in a household where an adult has been very sick OR died in the past 12 months	
Age						
	0-4					
	<2					
	2-4					
	5-9					
	10-14					
	15-17					
Sex						
	Male					
	Female					
Residence						
	Urban					
	Rural					
Region						
	Region 1					
	Region 2					
	Region 3					
	Region 4					
Wealth quintile						
	Lowest					
	Second					
	Middle					
	Fourth					
	Highest					
	Total <15					
	Total <18					

Note: Table is based only on children who usually live in the household. Very sick means person was too sick to work or do normal activities.

¹Whether or not lives in same household as child

²Persons age 18 to 59 years

The percentage with one or both parents dead (first column) corresponds to:

1) UNICEF-OVC *Raising Awareness to Create a Supportive Environment* Core Indicator 9 "Percentage of children who are orphans".

2) UNAIDS *Health and Social Impact* Indicator 4 "Prevalence of Orphanhood".

Data column 5 corresponds to UNICEF-OVC *Raising Awareness to Create a Supportive Environment* Core Indicator 10 "Percentage of children who are vulnerable".

Table 16.3 School attendance by survivorship of parents and OVC status

For de jure children 10-14 years of age, the percentage attending school by parental survival and by OVC status and the ratios of the percentages attending, by parental survival and OVC status, according to background characteristics, [country, year]

Background characteristic	Percentage attending school by survivorship of parents					Percentage attending school by OVC status				
	Both parents deceased	Both parents alive and living with at least one parent			Ratio ¹	OVC		Non OVC		Ratio ²
		Number	Number	Number		Percent-age	Number	Percent-age	Number	
Sex										
Male										
Female										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total										

Note: Table is based only on children who usually live in the household.

¹ Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with a parent

² Ratio of the percentage for OVC to the percentage for non OVC

Data columns 1 and 3 correspond to: UNGASS *Knowledge and Behaviour* Indicator 12 "Current school attendance among orphans and among non-orphans, aged 10-14".

Data column 5 corresponds to the following indicators:

1) UNICEF-OVC *Ensuring Access to Essential Services* Core Indicator 6 "Orphan school attendance ratio"

2) UNAIDS *Health and Social Impact* Indicator 5 "Ratio of orphans to non-orphans who are in school".

Table 16. 4 Possession of basic material needs by orphans and vulnerable children

Among de jure children age 5-17 years, the percentage possessing three minimum basic material needs, the percentage of OVC and non-OVC who possess all three basic material needs, and the ratio of the percentage for OVC to the percentage for non OVC, according to background characteristics, [country, year]

Background characteristic	Among children 5-17 years of age percentage possessing:				Number of children	Percentage possessing all three basic needs by OVC status				Ratio ²
	Shoes	Two sets of clothes	Blanket	All three basic needs ¹		OVC		Non OVC		
						Percent-age	Number	Percent-age	Number	
Age										
5-9										
10-14										
15-17										
Sex										
Male										
Female										
Residence										
Urban										
Rural										
Region										
Region 1										
Region 2										
Region 3										
Region 4										
Wealth quintile										
Lowest										
Second										
Middle										
Fourth										
Highest										
Total										

Note: Table is based only on children who usually live in the household.

¹ Shoes, two sets of clothing, a blanket

² Ratio of the percentage for OVC to the percentage for non OVC

Data column 10 corresponds to UNICEF-OVC *Strengthening the Capacity of Families to Protect and Care for Children* Core Indicator 1 "Basic Material Needs".

Table 16.5 Orphans not living with siblings		
Among de jure orphans under age 18 years who have one or more siblings under age 18 years, the percentage who do not live with all their siblings under age 18, by background characteristics [country, year]		
Background characteristic	Percentage of orphans not living with all siblings	Number of orphans with one or more siblings
Age		
0-4		
5-9		
10-14		
15-17		
Sex		
Male		
Female		
Orphanhood status		
Maternal orphan		
Paternal orphan		
Both parents deceased		
Number of living siblings under age 18 years		
1		
2-3		
3-4		
6+		
Residence		
Urban		
Rural		
Region		
Region 1		
Region 2		
Region 3		
Region 4		
Wealth quintile		
Lowest		
Second		
Middle		
Fourth		
Highest		
Total		

Note: Table is based only on children who usually live in the household

Data column 1 corresponds to UNICEF-OVC *Mobilizing and Strengthening Community-based Responses* Indicator A5 "Orphans living with siblings".

Table 16.6 Underweight orphans and vulnerable children

Percentage of de jure children under age five years who are underweight, total and by OVC status, according to background characteristics [country, year]

Background characteristic	Percentage of children under 5 who are underweight ¹	Number of children	Underweight by OVC status				Ratio ²
			OVC		Non OVC		
			Percentage underweight ¹	Number of OVC	Percentage underweight ¹	Number of non OVC	
Age							
<1 year							
1-2 years							
3-4 years							
Sex							
Male							
Female							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total							

Note: Table is based only on children who usually live in the household and who also slept in household the night preceding the interview.

¹ Two or more standard deviations below mean on the WHO Child Growth Standards for weight for age

² Ratio of the percentage for OVC to the percentage for non OVC

Last column corresponds to UNICEF-OVC *Strengthening the Capacity of Families to Protect and Care for Children* Core Indicator 2 "Malnutrition/Underweight prevalence".

Table 16.7 Sexual intercourse before age 15 of orphans and vulnerable children

Percentage of de jure children age 15-17 who had sexual intercourse before exact age 15, total and by OVC status, and ratio of the percentage for OVC to the percentage for non OVC, by sex, [country, year]

OVC status	Women		Men	
	Percentage who had sexual intercourse before exact age 15	Number of Women	Percentage who had sexual intercourse before exact age 15	Number of men
OVC				
Non OVC				
Total				
Ratio ¹		Na		na

Note: Table is based only on children who usually live in the household and who also slept in household the night preceding the interview.
na = Not applicable
¹Ratio of the percentage for OVC to the percentage for non-OVC

Row 4 corresponds to UNICEF-OVC *Strengthening the Capacity of Families to Protect and Care for Children* Core Indicator 3 "Sex before age 15"

Table 16.8 Succession planning

Percentage of de facto women and men age 15-49 who are the primary caregivers of children under age 18 years, and among the primary caregivers, the percentage who have made arrangements for someone else to care for the children in the event of their own inability to do so due to illness or death, by selected background characteristics, [country, year]

Background characteristic	Percentage of women and men who are primary caregivers	Number of women and men age 15-49	Percentage of caregivers who have made succession arrangements	Number of primary caregivers
Age				
15-19				
20-29				
30-39				
40-49				
Sex				
Women				
Men				
Education				
No education				
Primary				
Secondary				
More than secondary				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total 15-49				
Note: Table is based only on women and men who slept in household the night preceding the interview.				

Data column 3 corresponds to UNICEF-OVC *Strengthening the Capacity of Families to Protect and Care for Children* Indicator A4 "Succession Planning".

Table 16.9 Widows dispossessed of property				
Percentage of de facto women age 15-49 who have been widowed, and the percentage of widowed women who have been dispossessed of property, by selected background characteristics, [country, year]				
Background characteristic	Percentage of ever-widowed women	Number of women	Among ever-widowed women:	
			Percentage who were dispossessed of property ¹	Number of women
Age				
15-19				
20-29				
30-39				
40-49				
Marital status				
Married				
Widowed				
Age of youngest child				
< 18 years				
18+ years				
Residence				
Urban				
Rural				
Region				
Region 1				
Region 2				
Region 3				
Region 4				
Education				
No education				
Primary				
Secondary				
More than secondary				
Wealth quintile				
Lowest				
Second				
Middle				
Fourth				
Highest				
Total				
Note: Table is based only on women and men who slept in household the night preceding the interview.				
¹ Dispossessed of property indicates that none of late husband's assets went to the respondent				

Data column 3 corresponds to UNICEF-OVC *Ensuring that Governments Protect the Most Vulnerable Children* Indicator A6 "Property Dispossession".

Table 16.10 External support for very sick persons

Percentage of de jure women and men age 18-59 who have been either very sick or who died within the last 12 months after being very sick whose households received certain free basic external support to care for them within the last year, by background characteristics, [country, year]

Background characteristic	Percentage of very sick persons whose households received:						Number of persons
	Medical support at least once a month during illness	Emotional support in the last 30 days ¹	Social/material support in the last 30 days ²	At least one type of support in the last 30 days	All three types of support in the last 30 days	None of the types of support	
Age							
18-29							
30-39							
40-49							
50-59							
Sex							
Male							
Female							
Residence							
Urban							
Rural							
Region							
Region 1							
Region 2							
Region 3							
Region 4							
Wealth quintile							
Lowest							
Second							
Middle							
Fourth							
Highest							
Total 15-59							

Note: Table is based only on women and men who usually live in the household and who were very sick (unable to work or do normal activities) in the last 12 months or who died in the last 12 months and were very sick at least 3 of the 12 months before death. Support refers to the past 30 days for living persons and in the 30 days preceding death for deceased persons.

¹ Support such as companionship, counseling from a trained counselor or spiritual support for which there was no payment

² Support such as help with household work, training for a caregiver, legal services, clothing, food or financial support for which there was no payment

Column 4 corresponds to the following indicators:

- 1) PEPFAR *Care, Support, and/or Treatment* Indicator 4 "Percent of adults age 18-59 who have been chronically ill for 3 or more months during the past 12 months, including those ill for 3 or more months before death, whose households have received, free of user charges, basic external support in caring for the chronically ill person".
- 2) CARE & SUPPORT Core Indicator 9 "External support for chronically ill persons".
- 3) UNAIDS *Care and Support* Indicator 4 "Households receiving help in caring for chronically ill adults".

Table 16.11 External support for orphans and vulnerable children

Percentage of orphans and vulnerable children under age 18 years whose household received certain free basic external support to care for the child in the last 12 months, by background characteristics, [country, year]

Background characteristic	Percentage of orphans and vulnerable children whose household received:							Number of OVC children
	Medical support in the last 12 months ¹	Emotional support in the last 3 months ²	Social/material support in the last 3 months ³	School-related assistance in the last 12 months ⁴	At least one type of support ⁵	All types of support ⁵	None of the types of support	
Age of child in years								
0-4				na				
5-9								
10-14								
15-17								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Region								
Region 1								
Region 2								
Region 3								
Region 4								
Wealth quintile								
Lowest								
Second								
Middle								
Fourth								
Highest								
Total								

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

na = Not applicable

¹ Medical care, supplies or medicine

² Companionship, counseling from a trained counselor, or spiritual support for which there was no payment

³ Help with household work, training for a caregiver, legal services, clothing, food, or financial support for which there was no payment

⁴ Allowance, free admission, books, or supplies for which there as no payment. Percentage calculated for ages 5-17 years.

⁵ Four types of support for those age 5-17, three types of support (i.e. excluding school support) received by those age 0-4

Data column 5 corresponds to the following indicators:

1) UNICEF-OVC *Mobilizing and Strengthening Community-based Responses* Core Indicator 5 "External support for OVC".

2) UNGASS *National Programmes* Indicator 10 "Percentage of orphaned and vulnerable children aged 0-17 whose households received free basic external support in caring for the child".

Data column 6 corresponds to the following indicators:

1) PEPFAR *Orphan and Vulnerable Children (OVC)* Indicator 1 "Percentage of OVC under 18 living in households whose household received, free of user charge, basic external support in caring for the child".

2) CARE & SUPPORT Core Indicator 10 "External support for OVC".

Data column 6 partially corresponds to UNAIDS *Care and Support* Indicator 5 "Households receiving help with orphan care".

APPENDIX A

SURVEY DESIGN

A.1 Sample Design and Implementation

The major features of sample design should be described in this section. These include: target sample size; choice of domains; sampling stages; stratification; degree of clustering; and the relationship of design decisions to the nature of the sample frame. For a more complete description of the material to be covered in the sample design description, refer to the DHS Sampling Manual, DHS-III Basic Documentation Number 6.

Sample implementation refers to any cartographic and listing work that was needed to update, improve, or generate the ultimate sample lists of households or individuals.

A.2 Fieldwork and Data Analysis

This section should include a description of recruitment and training of interviewers, transport used, the composition of interviewing teams, quality control procedures, and various practical problems encountered. Response rates for domains and/or major regions should be presented. Tables A.1 and A.2 shows how response rates should be presented. An account should also be given of the data processing procedures.

A.3 Characteristics of the Sample

This section covers how representative the achieved sample is of the population and the interrelationships among key explanatory variables. The evaluation of how representative the achieved sample is of the population can be made by comparison with other sources of information. The age, residential, and educational characteristics of the sample are probably the most important aspects to discuss with regard to representation.

Table A.1 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), [country and year]

Result	Residence		Region				Total
	Urban	Rural	Region 1	Region 2	Region 3	Region 4	
Selected households							
Completed (C)							
Household present but no competent respondent at home (HP)							
Postponed (P)							
Refused (R)							
Dwelling not found (DNF)							
Household absent (HA)							
Dwelling vacant/address not a dwelling (DV)							
Dwelling destroyed (DD)							
Other (O)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households							
Household response rate (HRR) ¹							
Eligible women							
Completed (EWC)							
Not at home (EWNH)							
Postponed (EWP)							
Refused (EWR)							
Partly completed (EWPC)							
Incapacitated (EWI)							
Other (EWO)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women							
Eligible women response rate (EWRR) ²							
Overall women response rate (OWRR) ³							

¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

² The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC)

³ The overall women response rate (OWRR) is calculated as:

$$OWRR = HRR * EWRR/100$$

Table A.2 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible man and overall man response rates, according to urban-rural residence and region (unweighted), [country and year]

Result	Residence		Region				Total
	Urban	Rural	Region 1	Region 2	Region 3	Region 4	
Selected households							
Completed (C)							
Household present but no competent respondent at home (HP)							
Postponed (P)							
Refused (R)							
Dwelling not found (DNF)							
Household absent (HA)							
Dwelling vacant/address nota dwelling (DV)							
Dwelling destroyed (DD)							
Other (O)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households							
Household response rate (HRR) ¹							
Eligible men							
Completed (EMC)							
Not at home (EMNH)							
Postponed (EMP)							
Refused (EMR)							
Partly completed (EMPC)							
Incapacitated (EMI)							
Other (EMO)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men							
Eligible men response rate (EMRR) ²							
Overall men response rate (OMRR) ³							

¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

² The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC)

³ The overall men response rate (OMRR) is calculated as:

$$OMRR = HRR * EMRR/100$$

Table A.3 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), [country and year]

Characteristic	HIV test status			Total	Number of women
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection Other/missing ²		
Marital status					
Never married				100.0	
Ever had sex				100.0	
Never had sex				100.0	
Married/living together				100.0	
Divorced/separated				100.0	
Widowed				100.0	
Type of union					
In polygynous union				100.0	
Not in polygynous union				100.0	
Not currently in union				100.0	
Ever had sexual intercourse					
Yes				100.0	
No				100.0	
Currently pregnant					
Pregnant				100.0	
Not pregnant/not sure				100.0	
Times slept away from home in the past 12 months					
None				100.0	
1-2				100.0	
3-5				100.0	
5+				100.0	
Time away in last 12 months					
Away more than 1 month				100.0	
Away less than 1 month				100.0	
Not away				100.0	
Ethnicity					
----				100.0	
----				100.0	
----				100.0	
Religion					
----				100.0	
----				100.0	
----				100.0	
No religion				100.0	
Total 15-49				100.0	

¹ Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

As is the case with the survey response rates in Tables A.1 and A.2, Tables A.3-A.6 on coverage of HIV testing present (when applicable) unweighted data.

Categories for “Ethnicity” and “Religion” are to be determined by the response categories of the survey.

Table A.4 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men age 15-54 [59] by HIV testing status, according to social and demographic characteristics (unweighted), [country and year]

Characteristic	HIV test status			Total	Number of men
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection Other/missing ²		
Marital status					
Never married				100.0	
Ever had sex				100.0	
Never had sex				100.0	
Married/living together				100.0	
Divorced/separated				100.0	
Widowed				100.0	
Type of union					
In polygynous union				100.0	
Monogynous union				100.0	
Not currently in union				100.0	
Ever had sexual intercourse					
Yes				100.0	
No				100.0	
Circumcision status					
Circumcised				100.0	
Not circumcised				100.0	
Times slept away from home in the past 12 months					
None				100.0	
1-2				100.0	
3-5				100.0	
5+				100.0	
Time away in last 12 months					
Away more than 1 month				100.0	
Away less than 1 month				100.0	
Not away				100.0	
Ethnicity					
----				100.0	
----				100.0	
----				100.0	
Religion					
----				100.0	
----				100.0	
----				100.0	
No religion				100.0	
Total 15-54[59]				100.0	

¹ Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Categories for “Ethnicity” and “Religion” are to be determined by the response categories of the survey.

Table A.5 Coverage of HIV testing by sexual behavior characteristics: Women

Percent distribution of interviewed women who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), [country and year]

Sexual behavior characteristic	HIV test status			Total	Number of women
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection		
Age at first sexual intercourse					
< 16				100.0	
16-17				100.0	
18-19				100.0	
20+				100.0	
Higher-risk sexual intercourse in last 12 months³					
Had higher risk intercourse				100.0	
Had sexual intercourse, not higher risk intercourse				100.0	
No sexual intercourse in last 12 months				100.0	
Number of sexual partners in last 12 months					
0				100.0	
1				100.0	
2+				100.0	
Number of higher-risk partners in last 12 months⁴					
0				100.0	
1				100.0	
2+				100.0	
Any condom use					
Used condom at any time				100.0	
Never used condom				100.0	
Condom use at last sexual intercourse in last 12 months					
Used condom				100.0	
Did not use condom at last sex in last 12 months				100.0	
No sexual intercourse in last 12 months				100.0	
Number of sexual partners in lifetime					
1				100.0	
2				100.0	
3-4				100.0	
5-9				100.0	
10+				100.0	
Prior HIV testing					
Ever tested, got result				100.0	
Ever tested, did not get result				100.0	
Never tested				100.0	
Condom use at last higher-risk intercourse in last 12 months³					
Used condom				100.0	
Did not use condom				100.0	
No sexual intercourse in last 12 months				100.0	
Condom use at first sexual intercourse⁵					
Used condom				100.0	
Did not use condom				100.0	
Total 15-49				100.0	

¹ Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

³ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

⁴ A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the last 12 months

⁵ Refers to those age 15-24 only

Number of lifetime partner to be defined based on the frequency distribution; however, categories 1 and 2 must be maintained.

Table A.6 Coverage of HIV testing by sexual behavior characteristics: Men

Percent distribution of interviewed men who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), [country and year]

Sexual behavior characteristic	HIV test status			Total	Number of men
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection		
Age at first sexual intercourse					
< 16					100.0
16-17					100.0
18-19					100.0
20+					100.0
Higher-risk sexual intercourse in last 12 months³					
Had higher-risk intercourse					100.0
Had sexual intercourse, not higher-risk intercourse					100.0
No sexual intercourse in last 12 months					100.0
Number of sexual partners in last 12 months					
0					100.0
1					100.0
2+					100.0
Number of higher-risk partners in last 12 months⁴					
0					100.0
1					100.0
2+					100.0
Condom use					
Ever used a condom					100.0
Never used a condom					100.0
Condom use at last sexual intercourse in last 12 months					
Used condom					100.0
Did not use condom at last sex in last 12 months					100.0
No sexual intercourse in last 12 months					100.0
Paid for sexual intercourse in last 12 months⁵					
Yes					100.0
Used condom					100.0
Did not use condom					100.0
No/no sexual intercourse in last 12 months					100.0
Number of sexual partners in lifetime					
1					100.0
2					100.0
3-4					100.0
5-9					100.0
10+					100.0
Prior HIV test status					
Ever tested					100.0
Received results					100.0
Did not receive results					100.0
Never tested					100.0
Condom use at last higher-risk intercourse in last 12 months⁴					
Used condom					100.0
Did not use condom					100.0
No sexual intercourse in last 12 months					100.0
Condom use at first sexual intercourse⁶					
Used condom					100.0
Did not use condom					100.0
Total 15-54[59]					100.0

¹ Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

³ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

⁴ A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the last 12 months

⁵ Includes men who report having a prostitute for at least one of their last three sexual partners in the last 12 months

⁶ Refers to those age 15-24 only

Number of lifetime partner to be defined based on the frequency distribution; however, categories 1 and 2 must be maintained.

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

B.1 Introduction

The main objective of a DHS survey is to provide estimates of a number of basic demographic and health variables through interviews with a scientifically selected probability sample chosen from a well-defined population, usually women of reproductive age (i.e., 15-49) and sometimes men 15-54[59]. The estimates for these variables are subject to errors, which can be divided into two types: sampling errors and nonsampling errors.

Sampling error is the error that results from taking a sample of the covered population through a particular sample design. Nonsampling errors are systematic errors that would be present even if the entire population were covered (e.g., response errors, coding and data entry errors, etc.).

For the total sampled population and for large subgroups of the sampled population, the DHS sample is generally sufficiently large to provide reliable estimates of many statistics. For estimates pertaining to the total population and large population subgroups, the sampling error is typically smaller and less important than nonsampling error. However, for small population subgroups, sampling error can be quite large and can be important in providing an objective measure of reliability of a statistical estimate.

B.2 Format for Reporting Sampling Error

In the published report of the survey results, sampling errors for selected variables are presented in a tabular format. The sampling error tables include (see Table B.2.1):

Variable name;	
R:	Value of the estimate
SE:	Sampling error of the estimate
N:	Unweighted number of cases on which the estimate is based
WN:	Weighted number of cases
DEFT:	Design effect value represents the loss of precision that results from using cluster sampling rather than simple random sampling
SE/R:	Relative standard error, i.e., ratio of the sampling error to the value of the estimate
R-2SE:	Lower limit of the 95 percent confidence interval (never < 0.000 for a proportion).
R+2SE:	Upper limit of the 95 percent confidence interval (never >1.000 for a proportion).

B.3 Population Groups for Reporting Sampling Error

It is not necessary to compute sampling errors for all possible subgroups of the population. However, in DHS surveys, it is recommended that sampling errors be calculated separately only for urban and rural areas and each geographic sample domain (typically, administrative regions of the country).

B.4 Variables for Reporting Sampling Error

The choice of variables for which sampling error are presented depends on the priority given to specific variables. However, it is recommended that sampling errors be presented for at least the variables listed in Tables B.1.1 (women sample) and B.1.2 (men sample).

Table B.1.1 List of selected variables for sampling errors for the women sample, [country, year]

Variable	Estimate	Base Population
Urban	Proportion	All women
Literate	Proportion	All women
No education	Proportion	All women
Secondary education	Proportion	All women
Net attendance ratio	Ratio	Children 7-12 years
Never married	Proportion	All women
Currently married	Proportion	All women
Married before age 20	Proportion	Women age 20-49
Had sexual intercourse before age 18	Proportion	All women
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	Women age 40-49
Total fertility rate (3 years)	Rate	All women
Know any contraceptive method	Proportion	Currently married women
Ever used any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	Proportion	Currently married women
Currently using female sterilization	Proportion	Currently married women
Currently using periodic abstinence	Proportion	Currently married women
Used public sector source	Proportion	Current users of modern methods
Want no more children	Proportion	Currently married women
Want to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	All women
Perinatal mortality (0-4 years)	Ratio	Number of pregnancies of 7+ months
Neonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Post-neonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality (5-9 years)	Rate	Children exposed to the risk of mortality
Infant mortality (10-14 years)	Rate	Children exposed to the risk of mortality
Child mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Under-five mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Mothers received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before survey
Mothers received medical assistance at delivery	Proportion	Births occurring 1-59 months before interview
Having diarrhea in two weeks before survey	Proportion	Children age 0-59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhea in two weeks before interview
Vaccination card seen	Proportion	Children age 12-23 months
Received BCG	Proportion	Children age 12-23 months
Received DPT (3 doses)	Proportion	Children age 12-23 months
Received Polio (3 doses)	Proportion	Children age 12-23 months
Received measles	Proportion	Children age 12-23 months
Height-for-age (-2SD)	Proportion	Children age 0-59 months
Weight-for-height (-2SD)	Proportion	Children age 0-59 months
Weight-for-age (-2SD)	Proportion	Children age 0-59 months
Anemia in children	Proportion	Children age 6-59 months
Anemia in women	Proportion	All women
Body Mass Index (BMI) <18.5	Proportion	All women
Had 2+ sexual partners in past 12 months	Proportion	All women
Had higher-risk intercourse in past 12 months	Proportion	All women who had sexual intercourse in past 12 months
Condom use at last higher-risk intercourse	Proportion	All women who had higher-risk intercourse in past 12 months
Condom use at last higher-risk intercourse (youth)	Proportion	All women 15-24 who had higher-risk intercourse in past 12 months
Abstinence among youth (never had intercourse)	Proportion	Women 15-24
Sexually active in past 12 months among never-married youth	Proportion	Women 15-24
Had an injection in past 12 months	Proportion	All women
Had HIV test and received results in past 12 months	Proportion	All women
Accepting attitudes towards people with HIV	Proportion	All women who have heard of HIV/AIDS
HIV prevalence among all women 15-49	Proportion	All interviewed women with Dried Blood Sample (DBS) tested at the lab
HIV prevalence among pregnant women 15-49	Proportion	All interviewed pregnant women 15-49 with DBS tested at the lab
HIV prevalence among young women 15-24	Proportion	All interviewed women 15-24 with DBS tested at the lab
HIV prevalence all respondents	Proportion	All interviewed women and men with DBS tested at the lab

For the net attendance ratio for children, the age span should be modified according to country.

Unless otherwise noted ‘all women’ and ‘currently married women’ in Table B.1.1 refer to women age 15-49.

In countries where only currently married women are asked about current pregnancy, the base population for the proportion currently pregnant should be currently married women instead of all women. Sampling errors by urban and rural domains are shown for the period 0-9 years before the survey for the neonatal, postneonatal, infant, and child mortality rates.

Table B.1.2 List of selected variables for sampling errors for the men sample, [country, year]		
Variable	Estimate	Base Population
Urban	Proportion	All men
Literate	Proportion	All men
No education	Proportion	All men
Secondary education	Proportion	All men
Never married	Proportion	All men
Currently married	Proportion	All men
Married before age 20	Proportion	Men age 20-54[59]
Had sexual intercourse before age 18	Proportion	All men
Children ever born	Mean	All men
Know any contraceptive method	Proportion	Currently married men
Ever used any contraceptive method	Proportion	Currently married men
Want no more children	Proportion	Currently married men
Want to delay birth at least 2 years	Proportion	Currently married men
Ideal family size	Mean	All men
Had 2+ sexual partners in past 12 months	Proportion	All men
Had higher-risk intercourse in past 12 months	Proportion	All men who had sexual intercourse in past 12 months
Condom use at last higher-risk intercourse	Proportion	All men who had higher-risk intercourse in past 12 months
Condom use at last higher-risk intercourse (youth)	Proportion	All men 15-24 who had higher-risk intercourse in past 12 months
Abstinence among youth (never had intercourse)	Proportion	Men 15-24
Sexually active in past 12 months among never-married youth	Proportion	Men 15-24
Paid for sexual intercourse in past 12 months	Proportion	All men
Had an injection in past 12 months	Proportion	All men
Had HIV test and received results in past 12 months	Proportion	All men
Accepting attitudes towards people with HIV	Proportion	All men who have heard of HIV/AIDS
HIV prevalence among all men 15-49	Proportion	All interviewed men with Dried Blood Sample (DBS) tested at the lab
HIV prevalence among all men 15-54[59]	Proportion	All interviewed men 15-54[15-59] with DBS tested at the lab
HIV prevalence among young men 15-24	Proportion	All interviewed men 15-24 with DBS tested at the lab

Unless otherwise noted ‘all men’ and ‘currently married men’ refer to men 15-49.

Table B.2.1 in the next page shows the statistics calculated for the selected variables: the standard error, the number of weighted and unweighted cases, the design effect, the relative error, and the confidence intervals.

A similar table is used to present the corresponding sampling errors for other sample domains selected for the sample for women. A similar table but with the shorter list of variables included in Table B.1.2 will be used for the men’s sample, if any.

Table B.2.1 Sampling errors for the **total** sample for women. [country, year]

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Rela- tive error (SE/R)	Confidence intervals	
			Un- weighted (N)	Weight- ed (WN)			Value- 2SE (R-2SE)	Value+ 2SE (R+2SE)
Urban								
Literate								
No education								
Secondary education								
Net attendance ratio								
Never married								
Currently married								
Married before age 20								
Had sexual intercourse before age 18								
Currently pregnant								
Children ever born								
Children surviving								
Children ever born to women age 40-49								
Total fertility rate (3 years)								
Know any contraceptive method								
Ever used any contraceptive method								
Currently using any contraceptive method								
Currently using pill								
Currently using IUD								
Currently using female sterilization								
Currently using periodic abstinence								
Used public sector source								
Want no more children								
Want to delay birth at least 2 years								
Ideal family size								
Perinatal mortality (0-4 years)								
Neonatal mortality (0-4 years)								
Post-neonatal mortality (0-4 years)								
Infant mortality (0-4 years)								
Infant mortality (5-9 years)								
Infant mortality (10-14 years)								
Child mortality (0-4 years)								
Under-five mortality (0-4 years)								
Mothers received tetanus injection for last birth								
Mothers received medical assistance at delivery								
Having diarrhea in two weeks before survey								
Treated with oral rehydration salts (ORS)								
Taken to a health provider								
Vaccination card seen								
Received BCG								
Received DPT (3 doses)								
Received Polio (3 doses)								
Received measles								
Height-for-age (-2SD)								
Weight-for-height (-2SD)								
Weight-for-age (-2SD)								
Anemia in children								
Anemia in women								
Body Mass Index (BMI) <18.5								
Had 2+ sexual partners in past 12 months								
Had higher-risk intercourse in past 12 months								
Condom use at last higher-risk intercourse								
Condom use at last higher-risk intercourse (youth)								
Abstinence among youth (never had intercourse)								
Sexually active in past 12 months among never-married youth								
Had an injection in past 12 months								
Had HIV test and received results in past 12 months								
Accepting attitudes towards people with HIV								
HIV prevalence among all women 15-49								
HIV prevalence among pregnant women 15-49								
HIV prevalence among young women 15-24								

B.5 Program for Sampling Error Calculations

Sampling errors are computed using the ISSA computer package, developed by ORC Macro. This program takes into consideration the actual structure of the sample, in particular that the sample design may be stratified, multistaged, and clustered.

The program calculates sampling errors for values that can be represented as ratio-type estimates and for complex statistics such as the total fertility rate, infant mortality rate, etc. The program uses the Taylor expansion for ratio estimates of the form $r=y/x$, where y represents the total sample value of variable Y and x represents the total number of cases in the group or subgroups under consideration. The program then makes use of the formula

$$var(r) = \frac{1-f}{x^2} \sum_{h=1}^H \left[\frac{m_h}{m_h-1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

where

$$z_{hi} = y_{hi} - rx_{hi}$$

$$z_h = y_h - rx_h$$

H = number of strata

m_h = number of clusters selected in stratum h

Estimates of the sampling error for complex statistics can be made using the program's options for balanced repeated replications and Jackknife techniques.

In most DHS surveys, primary sampling units (PSUs) are selected systematically (either with equal or proportional probability), resulting in implicit stratification with one PSU per stratum. With this selection procedure, the sampling error calculation will follow the "collapsed strata" technique (i.e., grouping in pairs of PSUs). For those calculations, it is necessary to assign a serial number to each selected PSU in the order of selection.

Also, the program requires that none of the strata or PSUs cuts across the defined domains (e.g., no stratum or PSU can be defined partially in the urban domain and partially in the rural domain).

APPENDIX C

DATA QUALITY TABLES

Three types of tables are included in this appendix to examine the quality of the data collected in the DHS:

- Table C.1 contains the single-year age distribution of the de facto household population by sex. The purpose of Table C.1 is to examine the age structure obtained in the [year, survey] for evidence of heaping, especially ages ending in 0 and 5, and to examine the age limits of eligibility for interview, comparing women with men.
- Tables C.2.1 and C.2.2 contain the age distribution of the eligible respondents. The purpose of these tables is to detect both displacement of respondents out of the eligible age range and differential response rates by age.
- Table C.3 on completeness of reporting of basic indicators. The purpose of this table is to examine the amount of missing information for certain key indicators. High levels of missing data may indicate that the non-missing data are biased or of poor quality.
- Table C.4 shows the distribution of births by calendar years. The purpose of Table C.4 is to examine the impact of omission of births in the five years preceding the survey and the transference of births out of the dates of eligibility for the health, calendar and anthropometry sections of the questionnaire. If large amounts of omission are suspected, then care should be used in interpreting current fertility and mortality levels and trends. Both omission and transference are indicative of poor fieldwork and the quality of the data from other parts of the questionnaire may be affected.
- Table C.5 contains information on the reporting of age at death in days and Table C.6 on the reporting of age at death in months. The purposes of these tables are to examine the possible omission of neonatal and early neonatal deaths and to examine the effects of age at death heaping.
- Table C.7 contains nutritional status indicators for children under five years of age, based on the NCHS/CDC/WHO reference population and can be used for comparisons where the newer WHO Child Growth Standards have not been used.

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), [country, year]

Age	Males		Females		Age	Males		Females	
	Number	Percentage	Number	Percentage		Number	Percentage	Number	Percentage
0					37				
1					38				
2					39				
3					40				
4					41				
5					42				
6					43				
7					44				
8					45				
9					46				
10					47				
11					48				
12					49				
13					50				
14					51				
15					52				
16					53				
17					54				
18					55				
19					56				
20					57				
21					58				
22					59				
23					60				
24					61				
25					62				
26					63				
27					64				
28					65				
29					66				
30					67				
31					68				
32					69				
33					70+				
34					DK/missing				
35									
36					Total				

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before interview.

The purpose of Table C.1 is to examine the age structure for evidence of heaping, especially ages ending in 0 and 5, and to examine the age limits of eligibility for interview, comparing women with men.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, [country, year]

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14		na	Na	na
15-19				
20-24				
25-29				
30-34				
35-39				
40-44				
45-49				
50-54		na	na	na
15-49			100.0	

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire. na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-59 and interviewed men age 15-54; and percent distribution and percentage of eligible men who were interviewed (weighted), by five-year age groups, [country, year]

Age group	Household population of men age 10-59	Interviewed men age 15-54		Percentage of eligible men interviewed
		Number	Percentage	
10-14		na	na	na
15-19				
20-24				
25-29				
30-34				
35-39				
40-44				
45-49				
50-54				
55-59		na	na	na
15-54			100.0	

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the Household Questionnaire. na = Not applicable

The purpose of these tables is to detect both displacement of respondents out of the eligible age range and differential response rates by age. For ever-married samples, there should be an additional column (between the household population and the interviewed respondent columns) with the number of ever-married respondents age 10-54 (women) and 10-59 (men) tabulated from the Household Questionnaire. The household population should remain, but should refer to all de facto persons regardless of marital status.

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), [country and date]

Subject	Reference group	Percentage with missing information	Number of cases
Birth date Month only Month and year	Births in the 15 years preceding the survey		
Age at death	Deceased children born in the 15 years preceding the survey		
Age/date at first union ¹	Ever-married women age 15-49 and ever-married men 15-54		
Respondent's education	All women age 15-49 and all men 15-54		
Diarrhea in last 2 weeks	Living children age 0-59 months		
Anthropometry Height Weight Height or weight	Living children age 0-59 months (from the Household Questionnaire)		
Anemia Children Women	Living children age 6-59 months (from the Household Questionnaire) All women (from the Household Questionnaire)		

¹ Both year and age missing

The purpose of Table C.3 is to examine the amount of missing information for certain key indicators. High levels of missing data may indicate that the non-missing data are biased or of poor quality.

Table C.4 Births by calendar year

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), [country, year]

Calendar year ¹	Number of births			Percentage with complete birth date ¹			Sex ratio at birth ²			Calendar year ratio ³		
	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
0										na	na	na
1										na	na	na
2												
3												
4												
5												
6												
7												
8												
9												
0-4										na	na	na
5-9										na	na	na
10-14										na	na	na
15-19										na	na	na
20+										na	na	na
All										na	na	na

na = Not applicable

¹ Both year and month of birth given

² $(B_m/B_f) \times 100$, where B_m and B_f are the numbers of male and female births, respectively

³ $[2B_x / (B_{x-1} + B_{x+1})] \times 100$, where B_x is the number of births in calendar year x

The purpose of Table C.4 is to examine the impact of omission of births in the five years preceding the survey and the transference of births out of the dates of eligibility for the health, calendar and anthropometry sections of the questionnaire. The analyst may wish to graph these data to get a better visual appreciation of omission and transference. If large amounts of omission are suspected, then care should be used in interpreting current fertility and mortality levels and trends. Both omission and transference are indicative of poor fieldwork and the quality of the data from other parts of the questionnaire may be affected.

In the report, actual calendar years should be shown in the stub. For example, if fieldwork takes place in 2006, 0 becomes 2006, 1 becomes 2005, etc.

<u>Table C.5 Reporting of age at death in days</u>					
Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), [country, year]					
Age at death (days)	Number of years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1					
1					
2					
.					
.					
30					
Percentage early neonatal ¹					
¹ ≤ 6 days / ≤ 30 days					

<u>Table C.6 Reporting of age at death in months</u>					
Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey (weighted), [country, year]					
Age at death (months)	Number of years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 ^a					
1					
2					
.					
.					
23					
Percentage neonatal ¹					
^a Includes deaths under one month reported in days					
¹ Under one month/under one year					

The purposes of Tables C.5 and C.6 are to examine the possible omission of neonatal and early neonatal deaths; and the effects of age at death heaping.

Table C.7 Nutritional status of children by NCHS/CDC/ WHO International Reference Population

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population [country, year]

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percent-age below -3 SD	Percent-age below ₁ -2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below ₁ -2 SD	Percent-age above +2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below ₁ -2 SD	Percent-age above +2 SD	Mean Z-score (SD)	
Age in months												
<6												
6-8												
9-11												
12-17												
18-23												
24-35												
36-47												
48-59												
Sex												
Male												
Female												
Birth interval in months²												
First birth ³												
<24												
24-47												
48+												
Size at birth²												
Very small												
Small												
Average or larger												
Mother's interview status												
Interviewed												
Not interviewed, but in household												
Not interviewed, and not in the household ⁴												
Mother's nutritional status⁵												
Thin (BMI<18.5)												
Normal (BMI 18.5-24.9)												
Overweight/obese (BMI≥ 25)												
Residence												
Urban												
Rural												
Region												
Region 1												
Region 2												
Region 3												
Region 4												
Mother's education⁶												
No education												
Primary												
Secondary												
More than secondary												
Wealth quintile												
Lowest												
Second												
Middle												
Fourth												
Highest												
Total												

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population.

Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

¹Includes children who are below -3 standard deviations (SD) from the International Reference Population median

²Excludes children whose mothers were not interviewed

³First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

⁴Includes children whose mothers are deceased

⁵Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.

⁶For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Appendix Table C.7 is included to provide trend comparison with earlier DHS surveys and other data on children's nutritional status that was determined using the NCHS/CDC/WHO International Reference Standard. The results in this table should be similar to those in Table 11.1 except for children under six months of age, for whom lower levels of malnutrition are expected in this table.

In presenting the anthropometric results, the nutritional status of children in the survey population is compared with an international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control (CDC) and the World Health Organization (WHO). The data from the International Reference Population have been normalized to produce a distribution in which the mean coincides with the median.

APPENDIX D

INDICATORS

During the last decade there has been an increased effort to track the progress in the areas of health and sustainable development in the less developed regions of the world. A number of international agencies and organizations have developed indicators designed to aid in this process. This appendix present values for the indicators identified by the following international agencies and programs:

- Millennium Development Goal Indicators (MDG)
- UNICEF World Fit for Children Indicators (WFfC)
- Presidents' Emergency Plan for AIDS Relief (PEPFAR)
- United Nations General Assembly Special Session (UNGASS)
- Joint United Nations AIDS Program (UNAIDS)
- UNICEF Orphans and Vulnerable Children (UNICEF OVC)
- Youth Guide
- Care and Support

When specific indicators have been identified by more than one international agency, the indicator value is included in the indicator list for each agency. For example, the infant and under-five mortality rates are listed as indicators for Goal 4 of the MDG list and indicators 1 and 2 of the WFfC list.

To the extent possible, the values for the indicators listed for a given agency follow the definition for that indicator specified by the agency even if a similar statistic with a different definition appears in the main tables of this report. For example, WFfC indicator number 4 (Skilled attendant at delivery) is based on the last live birth to women in the two years preceding the survey even though a similar statistic "Births assisted by a skilled provider" appearing in the chapter on Reproductive Health (Table 9.6) is based on all births in the five years preceding the survey.

[Note to authors: Some surveys will not collect data pertaining to all of the indicators listed for each agency/program included in this appendix. It is the responsibility of the DHS country manager to work with the DHS data processing staff to determine which indicators are to be presented in a country report.]

Millennium Development Goal Indicators

Goal	Indicator	Value		
		Male	Female	Total
1. Eradicate extreme poverty and hunger	4. Prevalence of underweight children under five years of age			
2. Achieve universal primary education	6. Net enrolment ratio in primary education			
	7. Percentage of pupils starting grade 1 who reach grade 5			
	7b. Primary completion rate			
	8. Literacy rate of 15-24 year-olds			na
3. Promote gender equality and empower women	9. Ratio of girls to boys in primary, secondary and tertiary education	na	na	
	10. Ratio of literate women to men, 15-24 years old	na	na	
	11. Share of women in wage employment in the non-agricultural sector	na	na	
4. Reduce child mortality	13. Under-five mortality rate			
	14. Infant mortality rate			
	15. Percentage of 1 year-old children immunized against measles			
5. Improve maternal health	16. Maternal mortality ratio	na	na	
	17. Percentage of births attended by skilled health personnel	na	na	
6. Combat HIV/AIDS, malaria and other diseases	19. Percentage of current users of contraception who are using condoms			na
	19A. Condom use at last high-risk sex			na
	19B. Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS			na
	19C. Contraceptive prevalence rate	na		na
	20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years			
	22. Percentage of population in malaria-risk areas using effective malaria prevention and treatment measures	na	na	
	22A. Percentage of children under five sleeping under ITN			
	22B. Percentage of children under five who are appropriately treated			
7. Ensure environmental sustainability	29. Percentage of population using solid fuels			
	30. Percentage of population with sustainable access to an improved water source, urban and rural			
	31. Percentage of population with access to improved sanitation, urban and rural			
	32. Percentage of households with access to secure tenure		na	na

na = Not applicable

UNICEF WORLD FIT FOR CHILDREN INDICATORS

INDICATOR	DEFINITION	VALUE
Mortality		
1. Under-five mortality rate	1. Probability of dying by exact age 5 years (5 years preceding the survey)	
2. Infant mortality rate	2. Probability of dying by exact age 1 year (5 years preceding the survey)	
Environment		
11. Use of improved drinking water sources	11. Percent of household members living in households using improved sources of drinking water	
12. Use of improved sanitation facilities	12. Percent of household members using improved sanitation facilities	
13. Water treatment	13. Percent of household members using drinking water that has been treated	
14. Disposal of child's feces	14. Percent of youngest child less than 5 years of age whose last stool was disposed of safely	
24. Solid fuels	24. Percent of population residing in households that use solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy to cook	
Education and Literacy		
55. Net primary school attendance rate	55. Percent of children of primary-school age currently attending primary or secondary school	
56. Net secondary school attendance rate	56. Percent of children of secondary-school age currently attending secondary or tertiary school	
60. Adult literacy rate	60. Percent of women age 15-24 who are able to read a short simple statement about everyday life	
61. Gender Parity Index for primary education	61. Ratio of net proportion of girls in primary school to boys in primary school	
Gender Parity Index for secondary education	Ratio of net proportion of girls in secondary school to boys in secondary school	
62. Birth registration	62. Percent of children age 0-59 months whose births are reported as registered with civil authorities	
Marriage		
67. Marriage before age 15	67. Percent of women age 15-49 who were first married or in union by exact age 15	
Marriage before age 18	Percent of women age 20-49 who were first married or in union by exact age 18	
68. Women currently married or in union	68. Percent of women age 15-19 currently married or in union	
69. Spousal age difference; women 15-19	69. Percent of married women age 15-19 who are 10 or more years younger than their current spouse	
Spousal age difference; women 20-24	Percent of married women age 20-24 who are 10 or more years younger than their current spouse	
70. Polygyny	70. Percent of women age 15-49 in a polygynous union	
Reproductive health		
4. Skilled attendant at delivery	4. Percent of births in the 2 years preceding the survey attended by health personnel	
5. Institutional deliveries	5. Percent of births in the 2 years preceding the survey delivered in a health facility	
20. Antenatal care	20. Percent of mothers 15-49 who received antenatal care from health personnel ^{1, 2}	
44. Content of antenatal care	44. Percent of women who received all four antenatal care interventions ^{1, 3}	
21. Contraceptive prevalence	21. Percent of currently married or in union women age 15-49 who are using (or whose partner is using) a contraceptive method (modern or traditional method)	
Breastfeeding and child nutrition		
45. Timely initiation of breastfeeding	45. Percent of births that were put to the breast within one hour of birth ¹	
15. Exclusive breastfeeding rate	15. Percent of infants less than 6 months of age who are exclusively breastfed	
16. Continued breastfeeding rate	16. Percent of children age 12-15 months currently breastfeeding	
Continued breastfeeding rate	Percent of children age 20-23 months currently breastfeeding	
17. Timely complementary feeding rate	17. Percent of infants age 6-9 months who are breastfed and receive solid or semi-solid foods	
18. Frequency of complementary feeding	18. Percent of infants age 6-11 months who are breast fed and receive solid or semi-solid foods at least the minimum recommended number of times per day (2 times a day for 6-8 month olds, 3 times a day for 9-11 month olds)	
19. Adequately fed infants	19. Percent of infants 0-11 months who are appropriately fed: infants 0-5 months exclusively breastfed and infants 6-11 months who are breastfed and received solid or semi-solid foods the appropriate number of times (see indicator 18) yesterday	

INDICATOR	DEFINITION	VALUE
6. Children underweight 7. Children stunted 8. Children wasted 9. Low birth weight infants 10. Infants weighed at birth	6. Percent of children less than 5 years of age moderately or severely underweight 7. Percent of children less than 5 years of age moderately or severely stunted 8. Percent of children less than 5 years of age moderately or severely wasted 9. Percent of births in the 2 years preceding the survey at low birth weight ^{1,4} 10. Percent of births in the 2 years preceding the survey who were weighed at birth ¹	
Vaccinations & vitamin supplementation		
25. Tuberculosis immunization coverage 26. Polio immunization coverage 27. DPT immunization coverage 28. Measles immunization coverage 29. Hepatitis B immunization coverage 31. Fully immunized children 32. Neonatal tetanus protection 41. Iodized salt consumption 42. Vitamin A supplement 43. Vitamin A supplement (postpartum mothers)	25. Percent of children age 12-23 months receiving BCG vaccine before 12 months of age 26. Percent of children age 12-23-months receiving OPV3 vaccine before 12 months of age 27. Percent of children age 12-23 months receiving DPT3 vaccine before 12 months of age 28. Percent of children age 12-23[35] months receiving measles vaccine before 12 months of age 29. Percent of children age 12-23 months immunized against hepatitis before 12 months of age 31. Percent of children age 12-23 months receiving all four vaccinations before 12 months of age 32. Percent of children age 0-11 months protected against neonatal tetanus through immunization of their mothers with two or more doses of TT within an appropriate interval prior to infant's birth ⁵ 41. Percent of households with salt testing at least 15 parts per million of iodine or iodate 42. Percent of children age 6-59 months receiving at least one high dose vitamin A supplement during the 6 months preceding the survey 43. Percent of women who received a high dose vitamin A supplement within 8 weeks after birth ¹	
Child health care		
22. Antibiotic treatment of suspected pneumonia 23. Care seeking for suspected pneumonia 33. ORT use 34. Home management of diarrhea 35. Received ORT or increased fluids, and continued feeding	22. Percent of children age 0-59 months with suspected pneumonia in the previous 2 weeks receiving antibiotics 23. Percent of children age 0-59 months with suspected pneumonia in the previous 2 weeks, taken to an appropriate health provider 33. Percent of children age 0-59 months with diarrhea in the previous 2 weeks who were given oral rehydration salts (from a packet or pre-package solution) or an appropriate homemade solution (ORT) 34. Percent of children age 0-59 months with diarrhea in the previous 2 weeks who were given more fluids than usual AND who continued feeding ⁶ 35. Percent of children age 0-59 months with diarrhea who were given [ORT or more fluids than usual] AND who continued feeding ⁶	
Malaria		
36. Insecticide treated bed nets (ITNs) 37. Under fives sleeping under an ITN bed net 38. Under fives sleeping under any bed net 39. Anti-malarial treatment (under fives) 40. Intermittent preventive malaria treatment (pregnant women)	36. Percent of households with at least one mosquito net; permanently treated or treated within 1 year 37. Percent of children age 0-59 months who slept under an ITN bed net the previous night 38. Percent of children age 0-59 months who slept under a bed net the previous night 39. Percent of children age 0-59 months reported to have fever in the previous 2 weeks who were treated with an appropriate anti-malarial within 24 hours of fever onset 40. Percent of women receiving appropriate intermittent medication to prevent malaria (defined as at least 2 doses of SP/Fansidar) during the last pregnancy leading to a live birth within the 2 years preceding the survey	

INDICATOR	DEFINITION	VALUE
<p>Orphans and Vulnerable children (OVC)⁷</p> <p>75. Prevalence of orphaned children</p> <p>76. Prevalence of vulnerable children</p> <p>77. Index of school attendance of children with both parents deceased</p> <p>78. Children's living arrangements</p> <p>79. Index of malnutrition among OVC children</p> <p>80. Index of early sex among OVC children due</p> <p>81. External support to OVC children</p>	<p>75. Percent of children less than age 18 with at least one deceased parent</p> <p>76. Percent of children less than age 18 classified as vulnerable</p> <p>77. Ratio of the proportion of children age 10-14 with both mother and father dead who are attending school to the proportion of children age 10-14 with both parents alive and who live with at least one parent who are attending school</p> <p>78. Percent of children less than age 18 not living with a biological parent</p> <p>79. Ratio of the proportion of orphans and vulnerable children less than age 5 who are moderately or severely wasted to the proportion of children less than age 5 not classified as orphans or vulnerable who are moderately or severely wasted</p> <p>80. Ratio of the proportion of orphans and vulnerable children age 15-17 who had sex before age 15 to the proportion of children not classified as orphans or vulnerable children age 15-17 who had sex before age 15</p> <p>81. Percent of orphans and vulnerable children less than age 18 whose households received free basic external support in caring for the child</p>	
<p>Youth and sexual practices</p> <p>82. Comprehensive knowledge about HIV prevention</p> <p>83. Condom use with non-regular partners</p> <p>84. Age at first sex</p> <p>85. Higher risk sex in the last year</p> <p>92. Age-mixing among sexual partners</p>	<p>82. Percent of women age 15-24 who correctly identify 2 ways of avoiding HIV infection and reject 3 common misconceptions about HIV/AIDS</p> <p>83. Percent of women age 15-24 reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the previous 12 months</p> <p>84. Percent of women age 15-24 who had sex before exact age 15</p> <p>85. Percent of sexually active women age 15-24 who had sex with a non-marital, non-cohabiting partner in the previous 12 months</p> <p>92. Percent of women age 15-24 who had sex in the past 12 months with a partner who was 10 or more years older than themselves</p>	
<p>HIV/AIDS</p> <p>86. Attitudes toward people with HIV/AIDS</p> <p>87. Knowledge of where to be tested for HIV</p> <p>88. Women who have been tested for HIV</p> <p>89. Knowledge of vertical MTC transmission</p> <p>90. PMTCT counseling coverage</p> <p>91. PMTCT testing coverage</p>	<p>86. Percent of women age 15-49 expressing discriminatory attitudes towards people with HIV/AIDS⁸</p> <p>87. Percent of women age 15-49 who state knowledge of a place to be tested for HIV</p> <p>88. Percent of women age 15-49 who report being tested for HIV</p> <p>89. Percent of women age 15-49 who correctly identify all 3 means of vertical MTC transmission of HIV</p> <p>90. Percent of women age 15-49 who gave birth in the 24 months preceding the survey reporting that they attended ANC and received counseling on HIV/AIDS</p> <p>91. Percent of women age 15-49 that gave birth in the previous 24 months who reported that they attended an ANC clinic and received the results of an HIV test</p>	

¹For the last birth in the two years preceding the survey

²Doctor, nurse, midwife, auxiliary nurse or auxiliary midwife

³Blood taken for blood test, blood pressure measured, urine specimen taken and weight measured

⁴For children without a reported birth weight, the proportion with low birth weight is assumed to be the same as the proportion with low birth weight in each birth size category among those who have a reported birth weight

⁵Children are considered protected if their mother received two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within ten years of the last live birth), or received five or more injections at any time prior to the last birth

⁶Continued feeding is defined as eating more, the same or somewhat less than usual during the diarrhea episode

⁷Orphans are defined as children less than 18 years of age with at least one deceased parent. Vulnerable children are children less than 18 years of age who have a chronically ill parent, who live in a household where an adult died in the past year, or who live in a household where an adult has been chronically ill in the past year.

⁸Based on expressing a discriminatory attitude in response to at least one of four questions

HIV/AIDS INDICATORS			
			Table in
			DHSV
	Women	Men	Tab Plan
President's Emergency Plan for AIDS Relief			
Prevention			
Indicator 1	Percentage of young people age 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission		13.15
Indicator 2	Percentage of never-married young people age 15-24 who have never had sex		13.18
Indicator 3	Percentage of never married women and men age 15-24 who had sex in the last 12 months		13.18
Indicator 4	Percentage of women and men age 15-49 who had sex with more than one partner in the last 12 months		13.8.1/13.8.2
Indicator 5	Percentage of women and men age 15-49 who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months		13.8.1/13.8.2
Indicator 6	NA		13.9
Indicator 8	Average number of medical injections per person per year		13.14
Indicator 9	Proportion of women and men age 15-49 reporting that the last health care injection was given with a syringe and needle set from a new, unopened package		13.14
Counseling and Testing			
Indicator 1	Percentage of women and men age 15-49 who have been tested for HIV in the past 12 months and received their test results the last time they were tested		13.10.1/13.10.2
Care and Treatment			
Indicator 4	Percentage of adults age 18-59 who have been chronically ill for 3 or more months during the past 12 months, including those ill for 3 or more months before death, whose households have received, free of user charges, basic external support in caring for the chronically ill person		16.10
Orphan and Vulnerable Children (OVC)			
Indicator 1	Percentage of OVC under 18 living in households whose household have received, free of user charge, basic external support in caring for the child		16.11
Policy and Systems Strengthening (Capacity Building)			
Indicator 2	Percentage of the general population with accepting attitudes toward persons living with HIV/AIDS		13.5.1/13.5.2
UNGASS			
National Programmes			
Indicator 7	Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results		13.10.1/13.10.2
Indicator 10	Percentage of orphaned and vulnerable children aged 0-17 whose households received free basic external support in caring for the child		16.11
Knowledge and Behavior			
Indicator 12	Current school attendance among orphans and among non-orphans aged 10-14		16.3
Indicator 13	Percentage of young women and men aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission		13.15
Indicator 15	Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15		13.16
Indicator 16	Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months		13.8.1/13.8.2
Indicator 17	Percentage of women and men aged 15-49 who had more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse		13.8.1/13.8.2

			Table in DHSV Tab Plan
	Women	Men	
UNAIDS			
<i>Stigma and Discrimination</i>			
Indicator 1 <input type="checkbox"/> Accepting attitudes toward those living with HIV ¹			13.5.1/13.5.2
<i>Knowledge</i>			
Indicator 1 <input type="checkbox"/> Knowledge of HIV prevention methods <input type="checkbox"/>			13.2
Indicator 2 <input type="checkbox"/> No incorrect beliefs about AIDS <input type="checkbox"/>			13.3.1/13.3.2
Indicator 5 <input type="checkbox"/> Knowledge of prevention of mother-to-child transmission of HIV <input type="checkbox"/>			13.4
<i>Voluntary Counseling and Testing</i>			
Indicator 1 <input type="checkbox"/> Population requesting an HIV test, receiving a test, and receiving test results ²			13.10.1/13.10.2
<i>Mother-to-Child Transmission</i>			
Indicator 1 <input type="checkbox"/> Pregnant women counseled and tested for HIV <input type="checkbox"/>		NA	13.11
<i>Sexual Negotiation and Attitudes</i>			
Indicator 1 <input type="checkbox"/> Women's ability to negotiate safe sex with husband <input type="checkbox"/>			13.6
<i>Sexual Behavior</i>			
Indicator 1 <input type="checkbox"/> Higher risk sex in the last year <input type="checkbox"/>			13.8.1/13.8.2
Indicator 2 <input type="checkbox"/> Condom use at higher risk sex <input type="checkbox"/>			13.8.1/13.8.2
Indicator 3 <input type="checkbox"/> Commercial sex in last year <input type="checkbox"/>	NA		13.9
Indicator 4 <input type="checkbox"/> Condom use at last commercial sex <input type="checkbox"/>	NA		13.9
<i>Young People's Sexual Behavior</i>			
Indicator 1 <input type="checkbox"/> Median age at first sex among young men and women <input type="checkbox"/>			6.6
Indicator 2 <input type="checkbox"/> Young people having premarital sex in last year <input type="checkbox"/>			13.18
Indicator 3 <input type="checkbox"/> Young people using a condom during premarital sex ³			13.18
Indicator 4 <input type="checkbox"/> Young people having multiple partners in last year ³			13.8.1/13.8.2
Indicator 5 <input type="checkbox"/> Young people using a condom at last higher-risk sex ³			13.19.1/13.19.2
Indicator 6 <input type="checkbox"/> Condom use at first sex <input type="checkbox"/>			13.17
Indicator 7 <input type="checkbox"/> Age-mixing in sexual relationships ⁴		NA	13.20
<i>STI Care and Prevention</i>			
Indicator 4 <input type="checkbox"/> Men and women seeking treatment for STIs ⁵			Figure 13.2
<i>Care and Support</i>			
Indicator 4 <input type="checkbox"/> Households receiving help in caring for chronically ill adults <input type="checkbox"/>			16.10
Indicator 5 <input type="checkbox"/> Households receiving help with orphan care <input type="checkbox"/>			16.11
<i>Health and Social Impact</i>			
Indicator 1 <input type="checkbox"/> HIV prevalence among pregnant women <input type="checkbox"/>			14.5
Indicator 4 <input type="checkbox"/> Prevalence of orphanhood <input type="checkbox"/>			2.3 or 16.1
Indicator 5 <input type="checkbox"/> Ratio of orphans to non-orphans who are in school <input type="checkbox"/>			16.3

			Table in DHSV Tab Plan
	Women	Men	
UNICEF-OVC			
<i>Strengthening the Capacity of Families to Protect and Care for Children</i>			
Indicator 1 <input type="checkbox"/> Basic Material Needs ¹			16.4
Indicator 3 <input type="checkbox"/> Sex before age 15 ²			16.7
Indicator A4 <input type="checkbox"/> Succession Planning ³			16.8
<i>Mobilizing and Strengthening Community-based Responses</i>			
Indicator 5 <input type="checkbox"/> External support for OVC ⁴			16.11
Indicator A5 <input type="checkbox"/> Orphans living with siblings ⁵			16.5
<i>Ensuring Access to Essential Services</i>			
Indicator 6 <input type="checkbox"/> Orphan school attendance ratio ⁶			16.3
Indicator 7 <input type="checkbox"/> Birth registration ⁷			2.12
<i>Ensuring that Governments Protect the Most Vulnerable Children</i>			
Indicator A6 <input type="checkbox"/> Property Dispossession ⁸		NA	16.9
<i>Raising Awareness to Create a Supportive Environment</i>			
Indicator 9 <input type="checkbox"/> Percentage of children who are orphans ⁹			2.3/16.1
Indicator 10 <input type="checkbox"/> Percentage of children who are vulnerable ¹⁰			16.2
Indicator A7 <input type="checkbox"/> Stigma and discrimination ¹¹			13.5.1/13.5.2
Youth Guide			
<i>Risk Factors and Protective Factors</i>			
Indicator 9 <input type="checkbox"/> Knowledge of HIV prevention among young people ¹²			13.15
Indicator 10 <input type="checkbox"/> Knowledge of a formal source of condoms among young people ¹³			13.15
<i>Determinants</i>			
Indicator 15 <input type="checkbox"/> Adult support of education about condom for prevention of HIV/AIDS among young people ¹⁴			13.7
<i>Behavioral</i>			
Indicator 16 <input type="checkbox"/> Sex before the age of 15 ¹⁵			13.16
Indicator 17 <input type="checkbox"/> Condom use among young people who had higher-risk sex in the past year ¹⁶			13.19.1/13.19.2
Indicator 20 <input type="checkbox"/> Age-mixing in sexual partnerships among young women ¹⁷		NA	13.20
Indicator 21 <input type="checkbox"/> Sex with commercial sex worker among young men ¹⁸	NA		13.9
Indicator 22 <input type="checkbox"/> Sex among young people while intoxicated ¹⁹			13.21
Indicator 23 <input type="checkbox"/> HIV Testing behavior among young people ²⁰			13.22
<i>Impact</i>			
Indicator 30 <input type="checkbox"/> Young people who have an STI ²¹			13.13
Care & Support			
Indicator 9 <input type="checkbox"/> External support for chronically ill persons ²²			16.10
Indicator 10 <input type="checkbox"/> External support for OVC ²³			16.11
¹ Includes all respondents in the denominator ² The <input type="checkbox"/> voluntary component of the indicator is not measured in the survey ³ The indicator is based on all young men and women age 15-24 ⁴ Youth 15-19 ⁵ Percentage who sought care at a service provider with personnel trained in STI care ⁶ The indicator is calculated for women 15-24 and includes all partners (higher-risk and non higher-risk partners) who are older by 10 or more years ⁷ The estimate presented here partially corresponds to the original indicator, which includes people under the influence of drugs ⁸ Partial since the Youth Guide definition specifies: <input type="checkbox"/> Young people with STIs that were detected during diagnostic testing ⁸			