

Sierra Leone



Demographic and
Health Survey

2008



SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY 2008

Statistics Sierra Leone
Ministry of Health and Sanitation
Freetown, Sierra Leone

ICF Macro
Calverton, Maryland USA

July 2009



World Bank



World Health
Organization



UNHCR
The UN Refugee Agency

This report presents the findings of the 2008 Sierra Leone Demographic and Health Survey (SLDHS) carried out by Statistics Sierra Leone (SSL) in collaboration with the Ministry of Health and Sanitation (MOHS). The Government of Sierra Leone provided financial assistance in terms of funding and in-kind contributions of government staff time, office space, and logistical support. Additional funding for the survey was provided by the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF), the Department for International Development (DFID), and The World Bank. Logistical support was also received from the United Nations High Commission for Refugees (UNHCR), the World Health Organization (WHO), and the World Food Programme (WFP). ICF Macro, an ICF International Company, provided technical assistance and medical supplies and equipment for the survey through the MEASURE DHS programme, which is funded by USAID and designed to assist developing countries to collect data on fertility, family planning, and maternal and child health. The UNFPA Country Support Team provided backstopping support. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the donor organizations.

Additional information about the survey may be obtained from Statistics Sierra Leone, A.J. Momoh Street, Tower Hill, PMB 595, Freetown, Sierra Leone; Telephone +232-22-223287/ +232-76-609989; Fax +232-22-223897; Email: statistics@statistics.sl / info@statistics.sl

Information about the DHS programme may be obtained from MEASURE DHS, ICF Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 1-301-572-0200; Fax: 1-301-572-0999; Email: reports@macrointernational.com; Internet: www.measuredhs.com.

Suggested citation:

Statistics Sierra Leone (SSL) and ICF Macro. 2009. *Sierra Leone Demographic and Health Survey 2008*. Calverton, Maryland, USA: Statistics Sierra Leone (SSL) and ICF Macro.

CONTENTS

TABLES AND FIGURES	ix
ACKNOWLEDGEMENTS	xvii
FOREWORD	xix
PREFACE	xxi
SUMMARY OF FINDINGS	xxiii
CONTRIBUTORS TO THE SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY	xxix
MILLENNIUM DEVELOPMENT GOAL INDICATORS	xxxii
MAP OF SIERRA LEONE	xxxiii
CHAPTER 1 INTRODUCTION	
1.1 Geography.....	1
1.2 History.....	1
1.3 Economy	2
1.4 Population.....	3
1.5 Population and Family Planning Policies and Programmes	3
1.6 Health Policies and Programmes.....	4
1.7 Objectives and Organization of the 2008 SLDHS	6
1.8 Sample Design.....	6
1.9 Questionnaires	7
1.10 Anaemia and HIV Testing	8
1.10.1 Haemoglobin Testing.....	8
1.10.2 HIV Testing.....	8
1.11 Training of Field Staff	9
1.12 Main Fieldwork (Data Collection)	10
1.13 Data Processing	10
1.14 Response Rates.....	10
CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS	
2.1 Introduction	13
2.2 Household Population by Age, Sex and Residence	13
2.2.1 Household Composition	14
2.2.2 Children’s Living Arrangement and Orphanhood	15
2.3 School Attendance by Survivorship of Parents and by Orphanhood Status	17
2.4 Education of the Household Population.....	18
2.5 School Attendance Ratios	21
2.6 Grade Repetition and Drop-out Rate	22
2.7 Household Drinking Water	23
2.8 Sanitation Facilities	25
2.9 Other Household Characteristics	26
2.10 Household Durable Goods	28
2.11 Wealth Quintiles	28
2.12 Birth Registration	29
2.13 Child Labour	29

CHAPTER 3	CHARACTERISTICS OF RESPONDENTS	
3.1	Background Characteristics of Survey Respondents	33
3.2	Educational Attainment.....	34
3.3	Literacy.....	36
3.4	Access to Mass Media	38
3.5	Employment	39
3.6	Occupation	42
3.7	Earnings, Employers, and Continuity of Employment.....	44
3.8	Health Insurance	45
3.9	Knowledge and Attitudes Concerning Tuberculosis	45
3.10	Smoking	47
CHAPTER 4	FERTILITY LEVELS, TRENDS, AND DIFFERENTIALS	
4.1	Current Fertility	51
4.2	Fertility Differentials.....	53
4.3	Fertility Trends.....	55
4.4	Children Ever Born and Children Surviving	56
4.5	Birth Intervals	57
4.6	Age at First Birth	58
4.7	Adolescent Fertility and Motherhood	59
CHAPTER 5	FAMILY PLANNING	
5.1	Knowledge of Contraceptive Methods	63
5.2	Ever Use of Contraception	65
5.3	Current Use of Contraceptive Methods.....	67
5.4	Differentials in Contraceptive Use by Background Characteristics	69
5.5	Number of Children at First Use of Contraception	70
5.6	Knowledge of the Fertile Period.....	72
5.7	Source of Contraception	72
5.8	Informed Choice	73
5.9	Future Use of Contraception.....	74
5.10	Reasons for Not Intending to Use Contraception	75
5.11	Preferred Method for Future Use	76
5.12	Exposure to Family Planning Messages.....	76
5.13	Contact of Non-users with Family Planning Providers.....	78
5.14	Husband/Partner's Knowledge of Women's Contraceptive Use.....	79
5.15	Men's Attitudes Towards Contraception	80
CHAPTER 6	PROXIMATE DETERMINANTS OF FERTILITY	
6.1	Current Marital Status	83
6.2	Polygyny	84
6.3	Age at First Marriage	86
6.4	Age at First Sexual Intercourse	88
6.5	Recent Sexual Activity.....	90
6.6	Postpartum Amenorrhoea, Abstinence, and Insusceptibility	93
6.7	Menopause	94

CHAPTER 7	FERTILITY PREFERENCES	
7.1	Desire for More Children	95
7.2	Desire to Limit Childbearing by Background Characteristics	97
7.3	Need for Family Planning Services	98
7.4	Ideal Family Size	100
7.5	Mean Ideal Number of Children by Background Characteristics.....	101
7.6	Fertility Planning Status	102
7.7	Wanted Fertility Rates.....	102
CHAPTER 8	INFANT AND CHILD MORTALITY	
8.1	Definition, Methodology, and Data Quality	105
8.2	Levels and Trends	106
8.3	Differentials in Infant and Child Mortality	107
	8.3.1 Socioeconomic Differentials in Infant and Child Mortality.....	107
	8.3.2 Demographic Differentials in Infant and Child Mortality	109
8.4	Perinatal Mortality	110
8.5	High-Risk Fertility Behaviour	112
CHAPTER 9	MATERNAL HEALTH	
9.1	Antenatal Care.....	115
9.2	Number and Timing of Antenatal Care Visits.....	117
9.3	Components of Antenatal Care	117
9.4	Tetanus Toxoid Injections	119
9.5	Place of Delivery	120
9.6	Assistance during Delivery	121
9.7	Postnatal Care	123
9.8	Problems in Accessing Health Care	126
CHAPTER 10	CHILD HEALTH	
10.1	Child's Size at Birth.....	129
10.2	Vaccination Coverage	130
10.3	Trends in Vaccination Coverage.....	133
10.4	Acute Respiratory Infection	134
10.5	Fever	135
10.6	Diarrhoeal Disease	137
10.7	Knowledge of ORS Packets.....	141
10.8	Stool Disposal.....	141
CHAPTER 11	NUTRITION OF CHILDREN AND ADULTS	
11.1	Nutritional Status of Children.....	143
	11.1.1 Measurement of Nutritional Status among Young Children	143
	11.1.2 Results of Data Collection	144
	11.1.3 Levels of Malnutrition	147
11.2	Initiation of Breastfeeding	148
11.3	Breastfeeding Status by Age	150
11.4	Duration and Frequency of Breastfeeding.....	152

11.5	Types of Complementary Foods.....	154
11.6	Infant and Young Child Feeding (IYCF) Practices	156
11.7	Anaemia in Children.....	158
11.8	Iodization of Household Salt.....	160
11.9	Micronutrient Intake among Children	161
11.10	Nutritional Status of Women	164
11.11	Foods Consumed by Mothers	165
11.12	Micronutrient Intake among Mothers.....	167
11.13	Anaemia in Adults	169
CHAPTER 12	MALARIA	
12.1	Mosquito Nets	171
12.1.1	Ownership of Mosquito Nets.....	171
12.1.2	Use of Mosquito Nets by Children	173
12.1.3	Use of Mosquito Nets by Women.....	174
12.2	Intermittent Preventive Treatment of Malaria in Pregnancy	176
12.2.1	Malaria Prophylaxis during Pregnancy.....	176
12.2.2	Prevalence and Management of Childhood Malaria.....	178
CHAPTER 13	HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR	
13.1	HIV/AIDS Knowledge, Transmission, and Prevention Methods.....	183
13.1.1	Awareness of HIV/AIDS	183
13.1.2	Knowledge of HIV/AIDS Transmission and Prevention Methods....	185
13.1.3	Rejection of Misconceptions about HIV/AIDS	187
13.2	Knowledge of Prevention of Mother-to-Child Transmission of HIV.....	189
13.3	Stigma Associated with AIDS and Attitudes Related to HIV/AIDS	190
13.4	Attitudes towards Negotiating Safer Sex	193
13.5	Attitudes towards Condom Education for Youth.....	194
13.6	Higher-risk Sex	196
13.6.1	Multiple Partners and Condom Use	196
13.6.2	Transactional Sex.....	200
13.7	Coverage of HIV Counselling and Testing	200
13.7.1	HIV Testing during Antenatal Care	203
13.8	Male Circumcision.....	204
13.9	Self-reporting of Sexually Transmitted Infections	204
13.10	Prevalence of Medical Injections.....	206
13.11	HIV/AIDS-Related Knowledge and Sexual Behaviour among Youth.....	208
13.11.1	HIV/AIDS-Related Knowledge among Young Adults.....	208
13.11.2	Knowledge of Condom Sources among Young Adults	209
13.11.3	Trends in Age at First Sex.....	209
13.11.4	Condom Use at First Sex.....	211
13.11.5	Abstinence and Premarital Sex.....	212
13.11.6	Higher-risk Sex and Condom Use among Young Adults	213
13.11.7	Cross-generational Sexual Partners.....	215
13.11.8	Drunkness during Sexual Intercourse among Young Adults.....	216
13.11.9	Voluntary HIV Counselling and Testing among Young Adults	217

CHAPTER 14	HIV PREVALENCE AND ASSOCIATED FACTORS	
14.1	Coverage of HIV Testing	220
14.1.1	Coverage by Sex, Residence, and Region.....	220
14.1.2	Coverage by Socio-demographic Characteristics	221
14.2	HIV Prevalence.....	223
14.2.1	HIV Prevalence by Age	223
14.2.2	HIV Prevalence by Socio-economic Characteristics.....	223
14.2.3	HIV Prevalence by Demographic Characteristics.....	224
14.2.4	HIV Prevalence by Sexual Behaviour Indicators	226
14.3	HIV Prevalence by Other Characteristics Related to HIV Risk.....	228
14.4	HIV Prevalence among Youth	229
14.5	HIV Prevalence among Couples.....	232
14.6	Measuring the HIV Burden in Sierra Leone	232
CHAPTER 15	WOMEN’S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES	
15.1	Employment and Form of Earnings.....	235
15.2	Use of Earnings.....	236
15.3	Woman’s Participation in Decision-making.....	239
15.4	Attitudes toward Wife Beating	243
15.5	Attitudes toward Refusing Sex with Husband	246
15.6	Women’s Empowerment Indicators	250
15.7	Current Use of Contraception by Women’s Status	252
15.8	Reproductive Health Care by Women’s Status.....	253
CHAPTER 16	FEMALE CIRCUMCISION	
16.1	Knowledge and Prevalence of Female Circumcision.....	255
16.2	Flesh Removal and Infibulation	256
16.3	Age at Circumcision.....	256
16.4	Person Performing Circumcision	258
16.5	Circumcision of Daughters.....	258
16.6	Perceived Benefits of Undergoing Female Circumcision.....	261
16.7	Attitudes toward Female Circumcision.....	264
CHAPTER 17	ADULT AND MATERNAL MORTALITY	
17.1	Introduction	267
17.2	Data Collection.....	267
17.3	Data Quality	268
17.4	Direct Estimates of Adult Mortality.....	270
17.5	Direct Estimates of Maternal Mortality	271
REFERENCES		273
APPENDIX A	SAMPLE DESIGN	275
APPENDIX B	ESTIMATES OF SAMPLING ERRORS	283

APPENDIX C DATA QUALITY TABLES 293

**APPENDIX D PERSONS INVOLVED IN THE 2008 SIERRA LEONE
DEMOGRAPHIC AND HEALTH SURVEY..... 305**

APPENDIX E QUESTIONNAIRES 311

TABLES AND FIGURES

CHAPTER 1 INTRODUCTION

Table 1.1	Results of the household and individual interviews	10
-----------	--	----

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

Table 2.1	Household population by age, sex, and residence	13
Table 2.2	Household composition.....	15
Table 2.3	Children’s living arrangements and orphanhood	16
Table 2.4	School attendance by survivorship of parents and by orphanhood status.....	17
Table 2.5.1	Educational attainment of the female household population.....	19
Table 2.5.2	Educational attainment of the male household population.....	20
Table 2.6	School attendance ratios.....	22
Table 2.7	Grade repetition and dropout rates.....	23
Table 2.8	Household drinking water	25
Table 2.9	Household sanitation facilities.....	26
Table 2.10	Household characteristics	27
Table 2.11	Household durable goods.....	28
Table 2.12	Wealth quintiles	29
Table 2.13	Birth registration of children under age five.....	29
Table 2.14	Child labour	30
Figure 2.1	Population Pyramid	14
Figure 2.2	Age-specific Attendance Rates for the de facto Population Age 5-24.....	21

CHAPTER 3 CHARACTERISTICS OF RESPONDENTS

Table 3.1	Background characteristics of respondents.....	34
Table 3.2.1	Educational attainment: Women	35
Table 3.2.2	Educational attainment: Men.....	36
Table 3.3.1	Literacy: Women.....	37
Table 3.3.2	Literacy: Men	37
Table 3.4.1	Exposure to mass media: Women.....	38
Table 3.4.2	Exposure to mass media: Men	39
Table 3.5.1	Employment status: Women.....	40
Table 3.5.2	Employment status: Men	42
Table 3.6.1	Occupation: Women.....	43
Table 3.6.2	Occupation: Men	44
Table 3.7	Type of employment: Women.....	45
Table 3.8.1	Knowledge and attitudes concerning tuberculosis: Women	46
Table 3.8.2	Knowledge and attitudes concerning tuberculosis: Men	47
Table 3.9.1	Use of tobacco: Women.....	48
Table 3.9.2	Use of tobacco: Men	49
Figure 3.1	Women’s Employment Status in the Past 12 Months.....	41

CHAPTER 4 FERTILITY LEVELS, TRENDS, AND DIFFERENTIALS

Table 4.1	Current fertility	52
Table 4.2	Fertility by background characteristics.....	54
Table 4.3	Trends in age-specific fertility rates	55
Table 4.4	Children ever born and living.....	56
Table 4.5	Birth intervals.....	57
Table 4.6	Age at first birth	58
Table 4.7	Median age at first birth	59
Table 4.8	Teenage pregnancy and motherhood	60
Figure 4.1	Age-specific Fertility Rates by Urban-Rural Residence	53
Figure 4.2	Total Fertility Rate by Background Characteristics	54
Figure 4.3	Percentage of Adolescent Women Who Have Begun Childbearing by Background Characteristics.....	60

CHAPTER 5 FAMILY PLANNING

Table 5.1	Knowledge of contraceptive methods	64
Table 5.2	Knowledge of contraceptive methods by background characteristics.....	65
Table 5.3.1	Ever use of contraception: Women.....	66
Table 5.3.2	Ever use of contraception: Men	67
Table 5.4	Current use of contraception by age	68
Table 5.5	Current use of contraception by background characteristics.....	70
Table 5.6	Number of children at first use of contraception	71
Table 5.7	Knowledge of fertile period.....	72
Table 5.8	Source of modern contraception methods	73
Table 5.9	Informed choice	74
Table 5.10	Future use of contraception	75
Table 5.11	Reason for not intending to use contraception in the future	75
Table 5.12	Preferred method of contraception for future use	76
Table 5.13	Exposure to family planning messages.....	77
Table 5.14	Contact of non-users with family planning providers	79
Table 5.15	Husband/partner's knowledge of women's use of contraception.....	80
Table 5.16	Male attitudes towards contraceptive use.....	81
Figure 5.1	Current Use of Contraception among Currently Married Women Age 15-49	69
Figure 5.2	Contraceptive Use among Currently Married Women by Residence, Level of Education, and Wealth Quintile	71
Figure 5.3	Exposure to Specific Family Planning Messages.....	78

CHAPTER 6 PROXIMATE DETERMINANTS OF FERTILITY

Table 6.1	Current marital status.....	84
Table 6.2.1	Number of women's co-wives	85
Table 6.2.2	Number of men's wives	85
Table 6.3	Age at first marriage	86
Table 6.4.1	Median age at first marriage: Women	87
Table 6.4.2	Median age at first marriage: Men	88
Table 6.5	Age at first sexual intercourse.....	89
Table 6.6.1	Median age at first intercourse: Women	89

Table 6.6.2	Median age at first intercourse: Men.....	90
Table 6.7.1	Recent sexual activity: Women.....	91
Table 6.7.2	Recent sexual activity: Men.....	92
Table 6.8	Postpartum amenorrhoea, abstinence and insusceptibility.....	93
Table 6.9	Median duration of amenorrhoea, postpartum abstinence and postpartum insusceptibility.....	94
Table 6.10	Menopause.....	94
 CHAPTER 7 FERTILITY PREFERENCES		
Table 7.1	Fertility preferences by number of living children.....	96
Table 7.2.1	Desire to limit childbearing: Women.....	97
Table 7.2.2	Desire to limit childbearing: Men.....	97
Table 7.3	Unmet need and demand for family planning among currently married women.....	99
Table 7.4	Ideal number of children.....	100
Table 7.5	Mean ideal number of children.....	101
Table 7.6	Fertility planning status.....	102
Table 7.7	Wanted fertility rates.....	103
Figure 7.1	Fertility Preferences among Married Women.....	96
 CHAPTER 8 INFANT AND CHILD MORTALITY		
Table 8.1	Early childhood mortality rates.....	106
Table 8.2	Early childhood mortality rates by background characteristics.....	108
Table 8.3	Early childhood mortality rates by demographic characteristics.....	110
Table 8.4	Perinatal mortality.....	111
Table 8.5	High-risk fertility behaviour.....	113
Figure 8.1	Trends in Infant and Under-five Mortality in the 15 Years Preceding the Survey.....	107
Figure 8.2	Under-five Mortality by Mother's Background Characteristics.....	109
 CHAPTER 9 MATERNAL HEALTH		
Table 9.1	Antenatal care.....	116
Table 9.2	Number of antenatal care visits and timing of first visit.....	117
Table 9.3	Components of antenatal care.....	118
Table 9.4	Tetanus toxoid injections.....	120
Table 9.5	Place of delivery.....	121
Table 9.6	Assistance during delivery.....	122
Table 9.7	Timing of first postnatal check-up.....	124
Table 9.8	Type of provider of first postnatal check-up.....	125
Table 9.9	Problems in accessing health care.....	126
Figure 9.1	Assistance of Skilled Provider during Childbirth.....	123

CHAPTER 10 CHILD HEALTH

Table 10.1	Child's weight and size at birth	130
Table 10.2	Vaccinations by source of information	131
Table 10.3	Vaccinations by background characteristics.....	133
Table 10.4	Vaccinations in first year of life.....	134
Table 10.5	Prevalence and treatment of symptoms of ARI	135
Table 10.6	Prevalence and treatment of fever	136
Table 10.7	Prevalence of diarrhoea	137
Table 10.8	Diarrhoea treatment	139
Table 10.9	Feeding practices during diarrhoea	140
Table 10.10	Knowledge of ORS packets.....	141
Table 10.11	Disposal of children's stools	142
Figure 10.1	Vaccination Coverage among Children Age 12-23 Months.....	132
Figure 10.2	Vaccination Coverage during the First Year of Life among Children Age 12-23 Months.....	132

CHAPTER 11 NUTRITION OF CHILDREN AND ADULTS

Table 11.1	Nutritional status of children	145
Table 11.2	Initial breastfeeding	149
Table 11.3	Breastfeeding status by age	151
Table 11.4	Median duration and frequency of breastfeeding.....	153
Table 11.5	Foods and liquids consumed by children in the day and night preceding the interview	155
Table 11.6	Infant and young child feeding (IYCF) practices.....	157
Table 11.7	Prevalence of anaemia in children	160
Table 11.8	Presence of iodized salt in household	161
Table 11.9	Micronutrient intake among children	163
Table 11.10	Nutritional status of women	164
Table 11.11	Foods consumed by mothers in the day and night preceding the interview..	166
Table 11.12	Micronutrient intake among mothers	168
Table 11.13.1	Prevalence of anaemia in women	169
Table 11.13.2	Prevalence of anaemia in men.....	170
Figure 11.1	Nutritional Status of Children by Age	147
Figure 11.2	Types of Prolactal Liquids Received by Last-born Children in the Five Years Preceding the Survey.....	150
Figure 11.3	Infant Feeding Practices	152
Figure 11.4	Infant and Young Child Feeding (IYCF) Practices	158

CHAPTER 12 MALARIA

Table 12.1	Ownership of mosquito nets.....	172
Table 12.2	Use of mosquito nets by children.....	173
Table 12.3.1	Use of mosquito nets by women.....	175
Table 12.3.2	Use of mosquito nets by pregnant women	176
Table 12.4	Prophylactic use of anti-malarial drugs and use of Intermittent Preventive Treatment (IPT) by women during pregnancy	177
Table 12.5	Prevalence and prompt treatment of fever	179
Table 12.6	Type and timing of anti-malarial drugs	180
Table 12.7	Availability at home of anti-malarial drugs received by children with fever ...	181

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

Table 13.1	Knowledge of AIDS.....	184
Table 13.2	Knowledge of HIV prevention methods	186
Table 13.3.1	Comprehensive knowledge about AIDS: Women	187
Table 13.3.2	Comprehensive knowledge about AIDS: Men.....	188
Table 13.4	Knowledge of prevention of mother-to-child transmission of HIV.....	190
Table 13.5.1	Accepting attitudes towards those living with HIV/AIDS: Women	192
Table 13.5.2	Accepting attitudes towards those living with HIV/AIDS: Men.....	193
Table 13.6	Attitudes toward negotiating safer sexual relations with husband.....	194
Table 13.7	Adult support of education about condom use to prevent AIDS.....	195
Table 13.8.1	Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women	197
Table 13.8.2	Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men.....	199
Table 13.9	Payment for sexual intercourse: Men	200
Table 13.10.1	Coverage of prior HIV testing: Women	201
Table 13.10.2	Coverage of prior HIV testing: Men	202
Table 13.11	Pregnant women counselled and tested for HIV.....	203
Table 13.12	Male circumcision	204
Table 13.13	Self-reported prevalence of sexually transmitted infections (STIs) and STIs symptoms.....	205
Table 13.14	Prevalence of medical injections.....	207
Table 13.15	Comprehensive knowledge about AIDS and knowledge of a source for condoms among youth	209
Table 13.16	Age at first sexual intercourse among youth	210
Table 13.17	Condom use at first sexual intercourse among youth.....	211
Table 13.18	Premarital sexual intercourse and condom use during premarital sexual intercourse among youth	212
Table 13.19.1	Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Women	213
Table 13.19.2	Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Men	214
Table 13.20	Age-mixing in sexual relationships among women age 15-19.....	216
Table 13.21	Drunkenness during sexual intercourse among youth.....	217
Table 13.22	Recent HIV tests among youth	218
Figure 13.1	Women and Men Age 15-49 Who Sought Advice or Treatment for STIs.....	206
Figure 13.2	Facility Where Last Medical Injection Was Received.....	208
Figure 13.3	Abstinence, Being Faithful, and Condom Use (ABC) among Young Women and Men	215

CHAPTER 14 HIV PREVALENCE AND ASSOCIATED FACTORS

Table 14.1	Coverage of HIV testing by residence and region	221
Table 14.2	Coverage of HIV testing by selected background characteristics	222
Table 14.3	HIV prevalence by age.....	223
Table 14.4	HIV prevalence by socio-economic characteristics	224
Table 14.5	HIV prevalence by demographic characteristics	225
Table 14.6	HIV prevalence by sexual behaviour	227
Table 14.7	HIV prevalence by selected characteristics	228
Table 14.8	Prior HIV testing by current HIV status.....	229
Table 14.9	HIV prevalence among young people by background characteristics.....	230
Table 14.10	HIV prevalence among young people by sexual behaviour	231
Table 14.11	HIV prevalence among couples	233

CHAPTER 15 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

Table 15.1	Employment and cash earnings of currently married women.....	236
Table 15.2.1	Control over women's cash earnings and relative magnitude of women's earnings: Women	237
Table 15.2.2	Control over men's cash earnings.....	238
Table 15.3	Women's control over her own earnings and over those of her husband.....	239
Table 15.4.1	Women's participation in decision-making	240
Table 15.4.2	Women's participation in decision-making according to men	240
Table 15.5.1	Women's participation in decision-making	241
Table 15.5.2	Men's attitudes towards wives' participation in decision-making.....	243
Table 15.6.1	Attitude toward wife beating: Women	245
Table 15.6.2	Attitude toward wife beating: Men	246
Table 15.7.1	Attitudes towards a wife refusing to have sexual intercourse with husband: Women	247
Table 15.7.2	Attitudes towards a wife refusing to have sexual intercourse with husband: Men	248
Table 15.7.3	Men's attitudes towards a husband's rights when his wife refuses to have sexual intercourse.....	250
Table 15.8	Indicators of women's empowerment.....	252
Table 15.9	Current use of contraception by women's empowerment.....	253
Table 15.10	Reproductive health care by women's empowerment.....	254
Figure 15.1	Number of Household Decisions in Which Currently Married Women Participate	242

CHAPTER 16 FEMALE CIRCUMCISION

Table 16.1	Knowledge and prevalence of female circumcision	256
Table 16.2	Age at circumcision	257
Table 16.3	Person performing circumcision.....	258
Table 16.4	Practice of female circumcision among respondent's daughters	259
Table 16.5	Type of female circumcision among daughters.....	260
Table 16.6	Daughter's age at circumcision	261
Table 16.7	Perceived benefits of undergoing female circumcision	262
Table 16.8	Beliefs about female circumcision	264
Table 16.9	Attitudes toward female circumcision	265

CHAPTER 17 ADULT AND MATERNAL MORTALITY

Table 17.1	Data on siblings	268
Table 17.2	Indicators on data quality	269
Table 17.3	Estimates of age-specific female and male adult mortality	270
Table 17.4	Maternal mortality	272
Figure 17.1	Female Mortality Rates for the Period 2001-2008 and Model Life Table Rates, by Age Group.....	271
Figure 17.2	Male Mortality Rates for the Period 2001-2008 and Model Life Table Rates, by Age Group.....	271

APPENDIX A SAMPLE DESIGN

Table A.1	Distribution of Enumeration Areas (EAs) by domain and local council, and by urban-rural specification	276
Table A.2	Distribution of the household population by domain and local council, and by urban-rural specification	276
Table A.3	Distribution of households by domain and local council, and by urban-rural specification	277
Table A.4	Sample allocation of Enumeration Areas (EAs) and households by domain and local council, and by urban-rural specification	278
Table A.5	Expected number of completed interviews for women and men by domain and local council, and by urban-rural specification	279
Table A.6	Sample implementation: Women	281
Table A.7	Sample implementation: Men	282

APPENDIX B ESTIMATES OF SAMPLING ERRORS

Table B.1	List of selected variables for sampling errors, Sierra Leone 2008.....	285
Table B.2	Sampling errors: Total sample, SLDHS 2008.....	286
Table B.3	Sampling errors: Urban sample, SLDHS 2008.....	287
Table B.4	Sampling errors: Rural sample, SLDHS 2008.....	288
Table B.5	Sampling errors: Eastern sample, SLDHS 2008.....	289
Table B.6	Sampling errors: Northern sample, SLDHS 2008.....	290
Table B.7	Sampling errors: Southern sample, SLDHS 2008.....	291
Table B.8	Sampling errors: Western sample, SLDHS 2008.....	292

APPENDIX C DATA QUALITY TABLES

Table C.1	Household age distribution.....	293
Table C.2.1	Age distribution of eligible and interviewed women.....	294
Table C.2.2	Age distribution of eligible and interviewed men	294
Table C.3	Completeness of reporting.....	295
Table C.4	Births by calendar year	296
Table C.5	Reporting of age at death in days.....	296
Table C.6	Reporting of age at death in months	297
Table C.7	Nutritional status of children by NCHS/CDC/WHO International Reference Population	298
Table C.8	Coverage of HIV testing by social and demographic characteristics: Women	300
Table C.9	Coverage of HIV testing by social and demographic characteristics: Men	301
Table C.10	Coverage of HIV testing by sexual behaviour characteristics: Women	302
Table C.11	Coverage of HIV testing by sexual behaviour characteristics: Men.....	303

ACKNOWLEDGEMENTS

The 2008 Sierra Leone Demographic and Health Survey (SLDHS) represents the continued efforts in Sierra Leone to obtain reliable and accurate data on fertility behaviour, contraceptive practice, and other reproductive health issues. The survey results are critical and timely as additional information is provided relating to child survival and knowledge regarding HIV/AIDS. Such wealth of information will no doubt be tremendously useful in charting future directions for the population and health programmes including monitoring, evaluation, and research.

The 2008 SLDHS overwhelmingly received active support from a large number of institutions and individuals who were instrumental in the implementation and its overall success. The support and active involvement of the officials of the Ministry of Health and Sanitation are greatly acknowledged.

As a result of the adequate funding provided by the Sierra Leone Government, UNFPA, UNDP, DFID, UNICEF, USAID and The World Bank, logistical support by WHO, WFP, and UNHCR, and technical support by ICF Macro, a huge success was recorded and achieved.

I wish to acknowledge with much gratitude the tremendous support received from the Senior Management and staff of Statistics Sierra Leone, and in particular the Demographic and Social Statistics Division, Geographic Information System Division and the Data Processing Division. The unflinching support and leadership role provided by the resident SLDHS Consultant, during the implementation period of the survey, is worth mentioning. All the field staffs who were engaged in data collection, and all the data processing staff, and coordinators, worked tirelessly and their efforts are hereby acknowledged.

Sincere thanks are extended to the 2008 SLDHS Technical and Steering Committees, whose technical and policy guidance, respectively, made possible the successful implementation of the entire process.

Finally, my appreciation goes to all the households, men and women who were selected and who responded very well during the survey. Without their participation and support, this project would have been a failure. Their cooperation is therefore greatly appreciated.

Samura Kamara (Ph.D.)
Minister of Finance and Economic Development
Ministerial Building
Freetown

FOREWORD

It is generally acknowledged that meaningful development for any Nation can be achieved only when the Statistical information needed for the formulation of polices is readily available and properly documented.

Statistics Sierra Leone (SSL), being the agency charged with the responsibility of demographic data collection and analysis has been relentless in the efforts to obtain reliable and up-to-date data for the country.

The Demographic and Health Survey (DHS) is an internationally acknowledged survey designed to obtain information on health issues that affect the management and development of the population. Although the objectives of the 2008 Sierra Leone Demographic and Health Survey (SLDHS) focus on the specific issues and trends that are peculiar to the Sierra Leone situation, the survey was designed in conformity with international standards.

The 2008 SLDHS, which is the first DHS conducted in Sierra Leone, is specifically aimed at obtaining and providing information on general fertility and fertility preferences, use and knowledge of family planning methods, maternal and childhood health, maternal and childhood mortality, breast feeding practices, nutrition, HIV/AIDS and other health issues.

Although the 2008 SLDHS estimates the national total fertility rate (TFR), at 5.1 children which is still relatively high compared to the desired targets, the reported increase in the knowledge of other health issues among the population offers a ray of hope.

The 2008 SLDHS was funded by the Sierra Leone government, UNFPA, UNDP, UNICEF, DFID, The World Bank, USAID, while UNHCR, WFP, and WHO provided logistical support, and ICF Macro and the UNFPA Country Support Team provided technical backstopping. The Ministry of Health and Sanitation and other stakeholders also assisted in various ways to ensure the overall success of the project. The efforts of all these organizations are deeply appreciated by the Ministry of Health and Sanitation of Sierra Leone. It is hoped that users at all levels will find the report useful.

Honorable Mr. Sheiku Tejan Koroma
Ministry of Health and Sanitation of Sierra Leone
Freetown

PREFACE

One of the mandates of Statistics Sierra Leone (SSL) is to collect, collate, process, analyse, publish and disseminate population census and survey data at all levels. Statistics Sierra Leone has the additional mandate of being the focal point for policy formulation and coordination of population activities in the country. By this mandate, Statistics Sierra Leone occupies the leadership position in the population sector and the major provider of information on the Sierra Leone population. The successful conduct of the 2008 Sierra Leone Demographic and Health Survey (SLDHS) and the production of this report, within a reasonably short time frame, undoubtedly underscores Statistics Sierra Leone's leadership role.

The compilation of the report has been borne out of the need to meet the yearnings of policy makers, programme implementers, and researchers, who require timely data for their day-to-day operations.

The report contains detailed information on the demographic, health, and social indicators that will enable us measure progress in the Sierra Leone Society.

I commend the following for funding the survey:

1. Government of Sierra Leone
2. UNFPA
3. UNDP
4. UNICEF
5. USAID
6. DFID
7. The World Bank

The following provided logistical support to the survey: UNHCR, WFP, and WHO.

It is my sincere hope that the end users will thoroughly acquaint themselves with this report and take advantage of the findings for their developmental aspirations.

Professor Lawrence Kamara
Statistician General
Statistics Sierra Leone
Freetown

SUMMARY OF FINDINGS

The 2008 Sierra Leone Demographic and Health Survey (SLDHS) is the first DHS survey to be held in Sierra Leone. Teams visited 353 sample points across Sierra Leone and collected data from a nationally representative sample of 7,374 women age 15-49 and 3,280 men age 15-59. The primary purpose of the 2008 SLDHS is to provide policy-makers and planners with detailed information on fertility, family planning, childhood mortality, maternal and child health, female circumcision, maternal mortality, nutrition, knowledge of HIV/AIDS and other sexually transmitted infections, and HIV prevalence rates.

FERTILITY

Survey results indicate that there has been little or no decline in the total fertility rate over the past two decades, from 5.7 children per woman in 1980-85 to 5.1 children per woman for the three years preceding the 2008 SLDHS (approximately 2004-07). Fertility is lower in urban areas than in rural areas (3.8 and 5.8 children per woman, respectively). Regional variations in fertility are marked, ranging from 3.4 births per woman in the Western Region (where the capital, Freetown, is located) to almost six births per woman in the Northern and Eastern regions. Women with no education give birth to almost twice as many children as women who have been to secondary school (5.8 births, compared with 3.1 births). Fertility is also closely associated with household wealth, ranging from 3.2 births among women in the highest wealth quintile to 6.3 births among women in the lowest wealth quintile, a difference of more than three births.

Research has demonstrated that children born too close to a previous birth are at increased risk of dying. In Sierra Leone, only 18 percent of births occur within 24 months of a previous birth. The interval between births is relatively long; the median interval is 36 months.

Childbearing begins early in Sierra Leone. The median age at first birth is 19.3 years for women age 25-49. Thirty-four percent of girls age 15-19 have begun childbearing: more than

one-quarter have already had a child and 6 percent are pregnant with their first child.

Marriage and sexual behaviour patterns are important determinants of fertility levels. Almost three-fourths of women age 15-49 are currently married—65 percent are formally married and 10 percent are living together with a man. The proportion of men age 15-49 who are married (55 percent) is lower than the proportion of women who are married, probably because men tend to marry later than women. Thirty-seven percent of married women in Sierra Leone are in polygynous unions.

The median age at first marriage is 17.0 years for women age 25-49, compared with 24.5 years for men the same age. Women who are currently in their early 20s have a slightly higher median age at first marriage than older women, indicating that younger women may be marrying at later ages than women did in the past.

Women and men generally do not wait until marriage to initiate sexual activity. The median age at first intercourse is 16.1 years among women and 18.7 years among men age 25-49. Urban women, those living in the Western Region, better educated women and those in the highest wealth quintile tend to wait longer to initiate sexual activity. Among men, the median age at first sexual intercourse is similar across all sub-groups.

There is a considerable desire among Sierra Leonean women to control the number and timing of their births. Thirty percent of married women do not want any more children or are sterilized, and another 25 percent would like to wait at least two years before their next child. On average, Sierra Leonean women would like to have five children (5.0); this number is slightly less than the current fertility rate of 5.1 children per woman, and one child more than the four children suggested in the National Population Policy. Sixteen percent of recent births were mistimed (wanted later) and 10 percent were not wanted at all. These results indicate that there is a need for additional family planning services, especially those concerned with spacing births.

FAMILY PLANNING

The vast majority of Sierra Leonean women and men know of at least one method of contraception. Contraceptive pills and injectables are known to about 60 percent of currently married women and 49 percent of married men. Male condoms are known to 58 percent of married women and 80 percent of men. A higher proportion of respondents reported knowing a modern method of family planning than a traditional method.

About one in five (21 percent) currently married women has used a contraceptive method at some time—19 percent have used a modern method and 6 percent have used a traditional method. However, only about one in twelve currently married women (8 percent) is currently using a contraceptive method. Modern methods account for almost all contraceptive use, with 7 percent of married women reporting use of a modern method, compared with only 1 percent using a traditional method. Injectables and the pill are the most widely used methods (3 and 2 percent of married women, respectively), followed by LAM and male condoms (less than 1 percent each).

Current use of contraception is slightly higher among all women (10 percent) than among currently married women (8 percent). This is because contraceptive use is much higher among sexually active unmarried women (34 percent), who are included in the all women category.

Married women in urban areas are more likely to use contraception (16 percent) than those in rural areas (5 percent). Use increases with educational attainment, from 6 percent among married women with no education to 22 percent among those who have attended secondary school. Use of contraception also rises as wealth status increases, from 4 percent among married women in the lowest wealth quintile to 20 percent among those in the highest wealth quintile.

Half of women using modern contraceptive methods obtain their methods from the public sector, primarily from government health centres (18 percent), government family planning clinics (15 percent), and government hospitals (14 percent). More than one-third (39 percent) of women use the private medical sector to obtain

their contraceptive methods; 26 percent of users get their methods from pharmacies. Eight percent of women using a modern method obtain their method from a private hospital or clinic, and 6 percent get their method from other sources, mostly from friends or relatives.

Twenty-eight percent of currently married women who are not using contraception say they intend to use family planning in the future, 48 percent do not intend to use a family planning method, and 23 percent are unsure. The most common reasons for not intending to use a contraceptive method are opposition to the use of family planning by respondents or their husband/partner (each mentioned by 14 percent), desire for more children, lack of knowledge of methods, and fear of side effects (11 percent each).

There continues to be considerable scope for increased use of family planning in Sierra Leone. Overall, 36 percent of married women in Sierra Leone have an unmet need for family planning, most of which is due to a desire for spacing births (21 percent) rather than a need for limiting births (15 percent).

CHILD HEALTH

Examination of levels of infant and child mortality is essential for assessing population and health policies and programmes. Infant and child mortality rates are also used as indices reflecting levels of poverty and deprivation in a population. The 2008 survey data show that over the past 15 years, infant and under-five mortality have decreased by 26 percent. Still, one in seven Sierra Leonean children dies before reaching age five. For the most recent five-year period before the survey (approximately calendar years 2003 to 2008), the infant mortality rate was 89 deaths per 1,000 live births and the under-five mortality rate was 140 deaths per 1,000 live births. The neonatal mortality rate was 36 deaths per 1,000 live births and the post-neonatal mortality rate was 53 deaths per 1,000 live births. The child mortality rate was 56 deaths per 1,000 children surviving to age one year.

Mortality rates at all ages of childhood show a strong relationship with the length of the preceding birth interval. Under-five mortality is three times higher among children born less than two years after a preceding sibling (252 deaths

per 1,000 births) than among children born four or more years after a previous child (deaths 81 per 1,000 births).

Only 40 percent of Sierra Leonean children age 12-23 months are fully immunized, i.e., received BCG and measles vaccinations, and three doses each of DPT and polio vaccines. Looking at coverage for specific vaccines, 82 percent of children received the BCG vaccination, 77 percent received the first dose of DPT vaccine, and 76 percent received the first dose of polio vaccine (Polio 1). Coverage declines for subsequent vaccinations, with only 60 percent of children receiving the recommended three doses of DPT vaccine, and 50 percent receiving all three doses of polio vaccine. Only 60 percent of children received the measles vaccination. Sixteen percent of children have received no vaccinations at all.

Seven percent of children under five years were reported to have had a cough with short, rapid breathing—not just a blocked or runny nose—in the two weeks preceding the survey. Almost five in ten children (46 percent) with these symptoms were taken to a health facility or provider for treatment. Children who were less likely to be taken for treatment were those age 24-35 months, children living in the Eastern Region, children whose mothers have little or no education, and children in the poorest households (lowest wealth quintile).

Fever is a symptom of malaria and other acute infections in children. Twenty-five percent of children under age five were reported to have had a fever in the two weeks before the survey. About four in ten children with fever were taken to a health facility or provider for treatment, and three in ten children with fever were given anti-malarial drugs.

Almost half of children who were ill with diarrhoea in the two weeks preceding the survey were taken to a health facility or provider (47 percent). Mothers reported that almost nine in ten (86 percent) children with diarrhoea were treated with some form of oral rehydration therapy (ORT) or increased fluids, and over two-thirds were given a solution prepared from a packet of oral rehydration salts (68 percent).

MATERNAL HEALTH

Almost nine in ten mothers (87 percent) in Sierra Leone receive antenatal care from a health professional (doctor, nurse, midwife, or MCH aid). Only 5 percent of mothers receive antenatal care from a traditional midwife or a community health worker; 7 percent of mothers do not receive any antenatal care.

In Sierra Leone, over half of mothers have four or more antenatal care (ANC) visits, about 20 percent have one to three ANC visits, and only 7 percent have no antenatal care at all. The survey shows that not all women in Sierra Leone receive antenatal care services early in pregnancy. Only 30 percent of mothers obtain antenatal care in the first three months of pregnancy, 41 percent make their first visit in the fourth or fifth month, and 17 percent have their first visit in the sixth or seventh month. Only 1 percent of women have their first ANC visit in their eighth month of pregnancy or later.

Neonatal tetanus is a leading cause of neonatal death in developing countries where a high proportion of deliveries occur at home or in places where hygienic conditions may be poor. Tetanus toxoid (TT) vaccinations are given to pregnant women to prevent neonatal tetanus. The survey results show that, for the most recent live birth in the five years preceding the survey, most women (75 percent) in Sierra Leone received two or more tetanus injections during pregnancy and 79 percent of births are protected against neonatal tetanus.

One-third (34 percent) of women age 15-49 with a live birth in the two years preceding the survey received some type of anti-malarial medicine during their last pregnancy. However, in the vast majority of cases, the practice was not in accordance with national policy, i.e., only 20 percent of women reported taking SP/Fansidar—the recommended drug for intermittent preventive treatment of malaria during pregnancy in Sierra Leone—at least once during their pregnancy.

Increasing the proportion of babies delivered in health facilities is an important factor in reducing health risks to both mother and child. SLDHS data show that the majority of births in Sierra Leone (72 percent) are delivered at home; only 25 percent are delivered in health facilities, mostly public sector facilities. Less than half (42

percent) of births in Sierra Leone are delivered with the help of a health professional (i.e., doctor, nurse/midwife, or MCH aid), while 45 percent are delivered by a traditional birth attendant. About one in eleven births are attended by relatives (9 percent) and 1 percent of all births occur without any type of assistance.

Postnatal care coverage is low in Sierra Leone: only 38 percent of mothers receive postnatal care within 4 hours of delivery, 20 percent receive care within two days after delivery, and 5 percent receive care 3-41 days after delivery. About one-third of mothers (33 percent) do not get any postnatal care.

The maternal mortality ratio estimated from SLDHS data for the seven-year period preceding the survey is 857 maternal deaths per 100,000 births.

BREASTFEEDING AND NUTRITION

Poor nutritional status is one of the most important health and welfare problems facing Sierra Leone today and particularly afflicts women and children. The data show that 36 percent of children under five are stunted (too short for their age) and 10 percent of children under five are wasted (too thin for their height). Overall, 21 percent of children are underweight, which may reflect stunting, wasting, or both. For women, at the national level 11 percent of women are considered to be thin (body mass index <18.5); however, only 4 percent of women are considered severely thin. At the other end of a spectrum, 20 percent of women age 15-49 are considered to be overweight (body mass index 25.0-25.9) and 9 percent are considered obese (body mass index ≥30.0).

Poor breastfeeding and infant feeding practices can have adverse consequences for the health and nutritional status of children. Fortunately, breastfeeding in Sierra Leone is almost universal and generally of fairly long duration; 86 percent of newborns are breastfed within the first day after delivery. However, only 11 percent of infants under six months of age are exclusively breastfed, which is the recommended practice for children under six months. The median duration of any breastfeeding is 19.7 months in Sierra Leone, although the median duration of exclusive breastfeeding is extremely short—less than one month.

Infant and young child feeding (IYCF) practices include timely introduction of solid and semi-solid foods beginning at age six months, and thereafter increasing the amount and variety of foods and the frequency of feeding as the child gets older, while still maintaining frequent breastfeeding. Guidelines have been established with respect to IYCF practices for children age 6-23 months. Overall, only 23 percent of children are fed in accordance with IYCF practices.

Ensuring that children age 6-59 months receive enough vitamin A may be the single most effective child survival intervention. The survey results show that 26 percent of children age 6-59 months received a vitamin A supplement in the six months preceding the survey. Moreover, 75 percent of children age 6-35 months living with their mother consumed foods rich in vitamin A in the 24 hours preceding the survey, and 59 percent consumed foods rich in iron. With regard to iron supplements, only 20 percent of children age 6-59 months received an iron supplement in the seven days preceding the survey.

Determining anaemia levels among women and their children under five was one component of the SLDHS. As a result of the testing carried out during the survey it was found that 76 percent of children age 6-59 months have anaemia; 28 percent have mild anaemia, 44 percent have moderate anaemia, and about 4 percent have severe anaemia. Prevalence of anaemia in children decreases with increasing level of the mother's education and increasing household wealth status (wealth index). Urban children are somewhat less likely to be anaemic than rural children. Children in the Northern Region (79 percent) were the most likely to be anaemic.

Forty-five percent of women in Sierra Leone have some level of anaemia; the majority are mildly anaemic (34 percent), 11 percent are moderately anaemic, and about 1 percent were found to be severely anaemic. The prevalence of any anaemia in women varies by regions, with the lowest level in the Eastern and Southern regions (43 percent each) and the highest level in the Western Region (50 percent).

HIV/AIDS

The HIV/AIDS pandemic is one of the most serious health concerns in the world today because of its high case-fatality rate and the lack of a cure. Awareness of AIDS is relatively high

among Sierra Leonean adults age 15-49, with 69 percent of women and 83 percent of men saying that they have heard about AIDS. Nevertheless, only 14 percent of women and 25 percent of men are classified as having ‘comprehensive knowledge’ about AIDS, i.e., knowing that consistent use of condoms during sexual intercourse and having just one faithful, HIV-negative partner can reduce the chances of getting HIV/AIDS, knowing that a healthy-looking person can have HIV (the virus that causes AIDS), and knowing that HIV cannot be transmitted by sharing food/utensils with someone who has HIV/AIDS, or by mosquito bites.

Such a low level of knowledge about HIV/AIDS implies that a concerted effort is needed to address misconceptions about the transmission of HIV in Sierra Leone. Comprehensive knowledge is substantially lower among respondents with no education and those who live in the poorest households. Programmes could be targeted to populations in rural areas, and especially women in the Northern and Southern regions and men in the Eastern Region, where comprehensive knowledge is lowest. A composite indicator on stigma towards people who are HIV positive shows that only 5 percent of women and 15 percent of men age 15-49 expressed accepting attitudes towards persons living with HIV/AIDS.

Regarding condom use, only 7 percent of women who had more than one partner in the 12 months before the survey said they used a condom during the most recent sexual intercourse, far lower than the 15 percent reported by men. Among women who reported having higher-risk sexual intercourse in the past 12 months, only 7 percent used a condom at the last higher-risk sexual intercourse. For men, the comparable figure is three times higher—22 percent.

Overall, only about one-quarter of women age 15-49 years and one-third of men age 15-49 know where to get an HIV test. Even fewer have ever been tested; only 13 percent of women and 8 percent of men have ever had an HIV test, and only 4 percent of women and 3 percent of men have been tested and received their test results in the 12 months before the survey.

Several recent studies have shown that male circumcision may have a protective effect against transmission of HIV. The results of the 2008 SLDHS indicate that male circumcision is

widespread in Sierra Leone, with almost all men age 15-49 being circumcised (96 percent). This is seen for all age groups, residential areas, and levels of education.

One of the most important elements in the 2008 SLDHS was the inclusion of HIV testing for adults who were interviewed. Overall, HIV tests were conducted for 88 percent of the 3,954 eligible women age 15-49 and 85 percent of the 3,541 eligible men age 15-59 interviewed in every second household selected for the SLDHS.

The test results indicate that overall, 1.5 percent of Sierra Leonean adults age 15-49 are HIV positive. HIV prevalence is slightly higher among women (1.7 percent) than men (1.2 percent). There are few differentials in HIV prevalence by socio-economic, demographic, and sexual behaviour characteristics.

FEMALE CIRCUMCISION

The 2008 SLDHS collected data on the practice of female circumcision (or female genital cutting) in Sierra Leone. Awareness of the practice is universally high. Almost all (99 percent) of Sierra Leonean women and 96 percent of men age 15-49 have heard of the practice. The prevalence of female circumcision is high (91 percent). Most women (82 percent) reported that the cutting involves the removal of flesh. The most radical procedure, infibulation—when vagina is sewn closed during the circumcision—is reported by only 3 percent of women. The survey results indicate that almost all of the women were circumcised by traditional practitioners (95 percent); only a small proportion of circumcisions were performed by a trained health professional (0.3 percent).

Among Sierra Leonean adults age 15-49 who have heard of female circumcision, more men than women oppose the practice (41 and 26 percent, respectively), which is similar to patterns in other West African countries.

CONTRIBUTORS TO THE SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY

Professor Joseph A.L. Kamara	Statistician General, Statistics Sierra Leone
Mohamed K. Koroma	Deputy Statistician General, Statistics Sierra Leone
Moses L.J. Williams	Director of Demographic and Social Statistics
Andrew Bob Johnny	Director of Geographic Information System
Paul Sengeh	Monitoring and Evaluation Specialist - UNICEF
Dr. Edward Magbity	Monitoring and Evaluation Specialist - MOHS
Dr. Francis Smart	Programme Manager, RH and Family Planning Programme - MOHS
Dr. Duramani Conteh	Ag. Director, Hospitals and Laboratory Services - MOHS
Alhaji Vandy Sovula	National Professional Project Personnel, Data and Development - UNFPA
Mr. Samuel O. Weekes	Institute for Population Studies - USL
Mrs. Elizabeth Sam	Institute for Population Studies - USL
Samuel Ogunlade	SLDHS Consultant - UNFPA

Other Contributors to the SLDHS

Ade Renner	Health Economist - World Health Organization
James L. Kamara	Monitoring and Evaluation Office - National AIDS Secretariat
Gbogboto B. Musa	Senior Statistician - Statistics Sierra Leone
Sahr E. Yambasu	Senior Statistician - Statistics Sierra Leone
Sonnia Magba Bu-Buakei Jabbi	Senior Statistician - Statistics Sierra Leone
Ibrahim G. Kargbo	Statistician - Statistics Sierra Leone
Francis Tommy	Statistician - Statistics Sierra Leone
Peter Bangura	Statistician - Statistics Sierra Leone
Andrew Kamara	Statistician - Statistics Sierra Leone
Wogba Kamara	Statistician - Statistics Sierra Leone
Alusine Kamara	Statistician - Statistics Sierra Leone
Bridget Moseray (Mrs)	Statistician - Statistics Sierra Leone
Yeabu Tholley (Mrs)	Statistician - Statistics Sierra Leone
Mohamed Kamara	Statistician - Statistics Sierra Leone
Yalice Bangura (Mrs)	Statistician - Statistics Sierra Leone
Harriet Farmer (Mrs)	Asst. Statistician - Statistics Sierra Leone
Alimatu Musa (Ms)	Asst. Statistician - Statistics Sierra Leone

Millennium Development Goal Indicators

Goal	Indicator	Value (percent)		
		Male	Female	Total
1. Eradicate extreme poverty and hunger	4. Prevalence of underweight children under five years ¹	23.6	18.8	21.1
2. Achieve universal primary education	6. Net attendance ratio in primary education ²	60.6	62.9	61.7
	7. Percentage of pupils starting grade 1 who reach grade 5 ³	96.2	95.4	95.8
	7b. Primary completion rate ⁴	14.5	11.3	12.9
	8. Literacy rate for those age 15-24 years	69.6	43.5	na
3. Promote gender equality and empower women	9. Ratio of girls to boys in primary, secondary, and tertiary education ⁵	na	na	84.9
	10. Ratio of literate women to men age 15-24 years	na	na	62.5
	11. Share of women in wage employment in the non-agricultural sector ⁶	na	na	28.3
4. Reduce child mortality	13. Under-five mortality rate ⁷	na	na	140.0
	14. Infant mortality rate ⁷	na	na	56.0
	15. Percentage of children age one year immunized against measles ⁸	58.8	60.7	59.7
5. Improve maternal health	16. Maternal mortality ratio ⁹	na	na	857.0
	17. Percentage of births attended by skilled health personnel ¹⁰	na	na	42.4
6. Combat HIV/AIDS, malaria and other diseases	19. Percentage of current users of contraception using condoms ¹¹	49.3	7.5	na
	19A. Condom use at last higher-risk sex ¹²	22.4	9.6	na
	19B. Percentage of population age 15-24 years with comprehensive correct knowledge of HIV/AIDS ¹³	27.6	17.3	na
	19C. Contraceptive prevalence rate ¹⁴	na	8.2	na
	20. Ratio of school attendance of orphans to school attendance of non-orphans age 10-14 years ¹⁵	0.7	0.6	0.6
	22. Percentage of population in malaria-risk areas using effective malaria prevention and treatment measures ¹⁶	na	na	38.2
	22A. Percentage of children under five sleeping under ITN	25.5	26.0	25.8
	22B. Percentage of children under five with fever appropriately treated with antimalarial drugs	30.1	30.1	30.1
7. Ensure environmental sustainability	29. Percentage of population using solid fuels ¹⁷	Urban 98.9	Rural 99.7	Total 99.4
	30. Percentage of population with sustainable access to an improved water source, urban and rural ¹⁸	81.7	35.2	50.5
	31. Percentage of population with access to improved sanitation, urban and rural ¹⁹	26.1	6.6	13.0
	32. Percentage of households with access to secure tenure	na	na	na

na = Not applicable

¹ Based on children who slept in the household the night before the interview (de facto).

² Based on de facto population. Numerator is children age 6-11 currently attending school; denominator is children age 6-11 years.

³ Based on de facto population. This indicator is calculated using rates of promotion, dropout, and repetition for a given school year. The rates are used to project an estimate for the percentage of students attending grade 1 who are expected to reach grade 5, with or without repetition.

⁴ Based on de facto population. Numerator is children who completed grade 6 or higher; denominator is children age 11-13 years.

⁵ Based on de facto population age 6-24 years

⁶ Numerator is all women working in the non-agricultural sector who received payment in cash, or in cash and in kind; denominator is all women and all men with non-agricultural occupation.

⁷ Mortality rates refer to a 5-year period before the survey.

⁸ In Sierra Leone, the measles vaccinations are given at the age of 9 months. The values presented in the table are for children age 12-23 months who have been vaccinated at any time against measles.

⁹ Per 100,000 live births; calculated as maternal mortality rate divided by the general fertility rate (for the period 2001-2008)

¹⁰ Skilled health personnel includes: doctor, nurse, midwife, and MCH aid.

¹¹ The number of women age 15-49 in marital or consensual unions who report they are using a condom to avoid pregnancy (regardless of whether they are also using additional methods) is divided by the total number of women age 15-49 in union who are practicing, or whose sexual partners are practicing, contraception. The indicator is not equivalent to condom use prevalence as a main method of contraception).

¹² Based on de facto population age 15-24. Higher-risk sex is sexual intercourse with a non-marital, non-cohabiting partner.

¹³ Respondents with "comprehensive correct knowledge" of AIDS are those who say that using a condom every time for sexual intercourse and having just one uninfected and faithful partner can reduce the chances of getting the AIDS virus, and furthermore say that a healthy-looking person can have the AIDS virus, and who reject the common misconception that HIV can be spread by mosquito bites and by sharing food with someone with AIDS.

¹⁴ Based on women age 15-49 in marital or consensual unions

¹⁵ Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with a parent. Note that these indicators do not take into account children who live outside of households, e.g., in institutions or on the street, because the SLDHS includes only households in its sample.

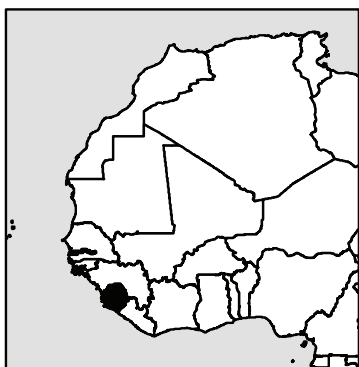
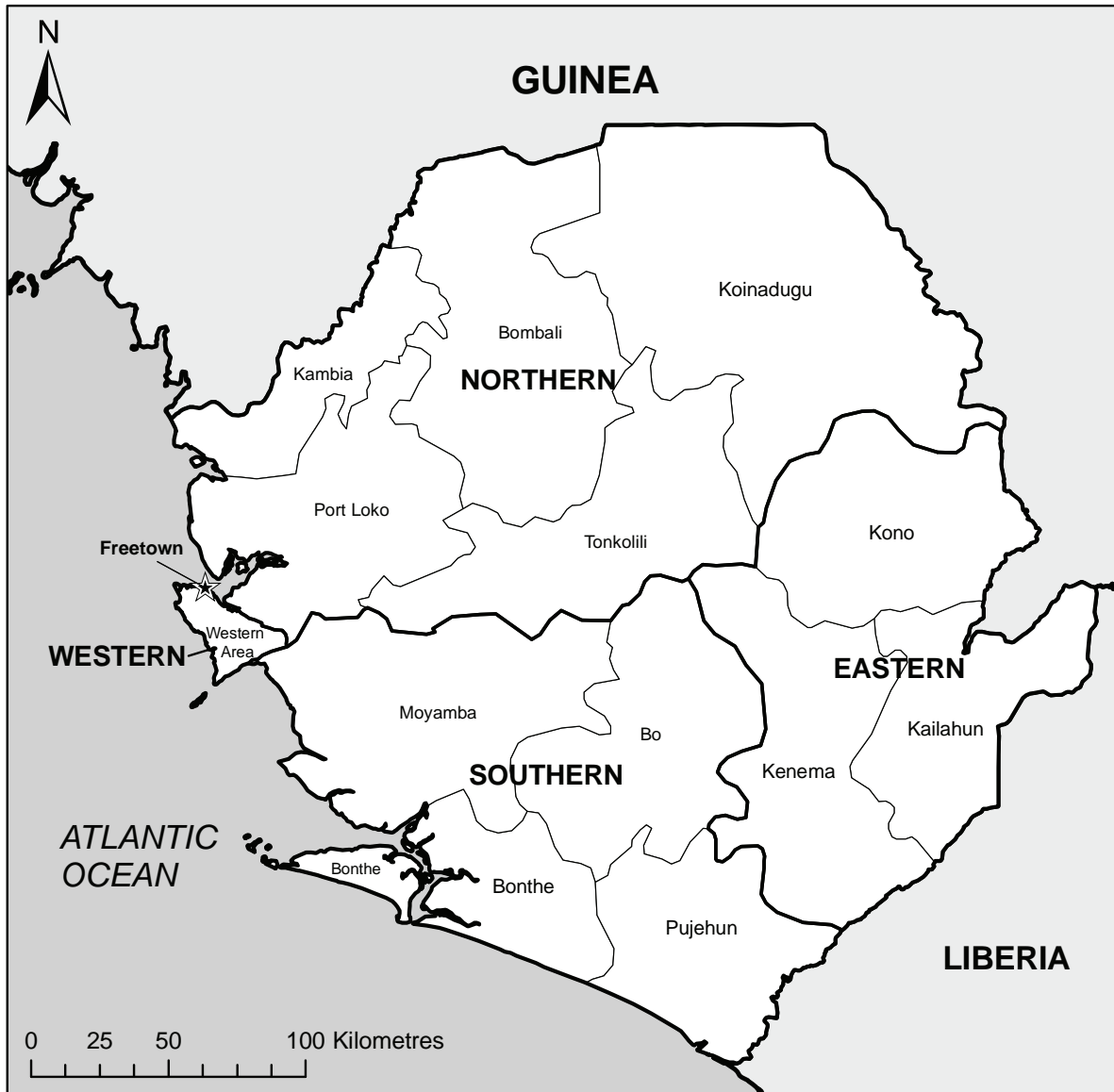
¹⁶ Based on de facto population with at least one insecticide-treated bednet (ITN)

¹⁷ Solid fuel includes: coal, charcoal, wood, straw, crops, animal dung and other.

¹⁸ Improved drinking water source includes: water from pipe/tap, from protected well, protected spring and rainwater.

¹⁹ Improved sanitary means of excreta disposal includes: flush toilet, improved pit latrine, and latrine with a slab.

SIERRA LEONE



INTRODUCTION

1.1 GEOGRAPHY

Sierra Leone is located on the west coast of Africa and covers an area of about 72,000 square kilometres (28,000 square miles). It extends from latitude 7 degrees north to 10 degrees north, and from longitude 10 degrees west to 14 degrees west. The Republic of Guinea borders it on the north and northeast, and the Republic of Liberia borders it on the east and southeast. On the west and southwest, the Atlantic Ocean extends approximately 340 kilometres (211 miles). Administratively, Sierra Leone is divided into 4 provinces. Each province is subdivided into districts, and each district is divided into chiefdoms. Overall, there are 14 districts and 149 chiefdoms. Among the 14 districts, there are 5 city councils and 14 district councils, including Freetown, the capital, for a total of 19 local councils (SSL, 2006).

Sierra Leone has four main physical regions: the Freetown Peninsula raised beaches and hills, the Coastal Plains, the Interior Lowlands, and the Interior Plateau. The Freetown peninsula consists of three roughly parallel ranges of highlands that are narrow but extend about 30km south of Freetown. The hills and mountains in these highlands rise impressively from 200 to 1000m above the low-lying narrow coastal area.

The Interior Lowlands region makes up about half of the country. Most of the area, which is largely swamp, is less than 150m above sea level. The Interior Plateau region makes up the eastern half of the country. It is the most extensive physical region and includes the greatest variety of land forms. It is 300 to 450m above sea level. The Interior Plateau is dissected by the main rivers flowing westward towards the sea. Rising above the general level of this region are a number of hills and mountains, including the Kambui, Nimini, and Gori hills and the Sula, Kangari, Loma, Tingi, and Wara Wara mountains.

Climate in Sierra Leone is determined mainly by the seasonal movements of two air masses: the north-easterly Continental Tropical Winds (commonly called North-East Trade Winds) and the south-westerly Maritime Tropical Winds (commonly called South-West Monsoon). The country experiences two main seasons: the dry season, which is between November and May, and the wet/raining season, which lasts from April/May to November.

The present distribution of vegetation in Sierra Leone has been influenced not only by factors of climate and soil, but also by man. At present the following vegetation communities can be distinguished: forest, savanna, grassland, and swamp.

The country has eight main river systems. The Great Scarcies, Little Scarcies, Rokel, Jong, Sewa, Wanjei, Moa, and Mano. The rivers typically flow from north east to south west, eventually reaching the Atlantic Ocean.

1.2 HISTORY

Sierra Leone's earliest known contact with Europe was in the fifteenth century during the Portuguese voyages of exploration. One such voyage to discover a sea route to India resulted in the Portuguese reaching the Sierra Leone Peninsula. Because the high coastal ranges resembled lions to the explorers, the area was called Sierra Lyoa, meaning Lion Mountains.

Contact stimulated trade, with manufactured goods coming from Europe, in return for fruit, carvings, and gold from Sierra Leone. However, in the sixteenth century, there was the added dimension of the introduction of the slave trade. In 1562 the earliest known shipment of slaves was

taken from the country to the Americas. There was a further strengthening of the European link in 1789 with the founding of settlements for freed slaves. The first group of 411 freed slaves was settled on land bought from King Tom of the Sierra Leone Peninsula.

The settlement was under the administration of the Sierra Leone Company, which was founded in 1791 with the aim of re-establishing legitimate trade with the inhabitants. With the abolition of the slave trade and pressure from individuals and organizations in Britain, the British Government took direct responsibility for the new settlement. In 1808 the British Government declared the new settlement to be a Crown Colony. This move was intended to facilitate the enforcement of the Slave Trade Abolition Act. British rule covered only the colony, which was then the Freetown Peninsula and Bonthe Island. The largest part of the country, referred to as the hinterland, was in the hands of traditional rulers. However, in 1896, the rest of the country was declared a protectorate, followed two years later by the Hut Tax War.

Today, Sierra Leone is a republic within the British Commonwealth of Nations, having gained independence from Britain on 27 April, 1961. It gained the status of republic in April 1971 and adopted a one-party system of government in 1978. In 1991, however, the country reverted to a multiparty state, with two main political parties: the Sierra Leone Peoples Party (SLPP) and the All Peoples Congress (APC). The country then went through a 10-year civil conflict that began in 1991 and ended in 2002.

English is the official language of the country, which has about 15 ethnic groups. The major tribes include the Mende, Temne, Limba, and Creole. The main religions are Christianity and Islam.

1.3 ECONOMY

According to the results of the 2004 Sierra Leone Population and Housing Census (SSL, 2006), the population of Sierra Leone is estimated at about 4.9 million in an estimated 819,854 households. For the period 1985-2004, the population growth rate was estimated at 1.8 percent. About 64 percent of the population resides in rural areas.

Sierra Leone was ranked last among the 177 countries surveyed globally in the 2007/2008 United Nations Human Development Index, with a per capita GDP of about US\$806, a life expectancy of 41.8 years, and an adult literacy rate of 34.8 percent. The UNDP 2007/2008 Human Development Report estimates that in 2005 about 52 percent of the population lived on less than US\$1 a day (UNDP, 2007).

In 2007, Sierra Leone's real GDP grew by 6.4 percent, or about 0.9 percentage points below the 2006 growth rate of 7.3 percent. Of the total 2007 GDP, the contribution of agriculture declined to 46 percent; industry and services (less FISIM¹) remained unchanged at 10 percent and 37 percent, respectively; while the Net-Tax contribution went up by 1 percent to 7 percent. The economy has been unable to create jobs at a rate to match the rising labour force demand.

The most recent household income and expenditure survey (2003-04) showed that about 70 percent of the population lives below the poverty line according to the National Poverty Line of Le² 2,111 per day (SSL, 2004). Overall, poverty is highest in rural areas, with 79 percent of the rural population living below the poverty line. The most acute form of poverty, insufficient food, is concentrated mainly in rural areas. About 68 percent of the population cannot afford enough food to eat. Three out of four people (75 percent) in rural areas outside Freetown do not attain the minimum daily calorie intake (2700 calories). The poor in Sierra Leone can meet only about 71 percent of their

¹ FISIM is Financial Intermediation Services Indirectly Measured. The SNA 93 recommends that it should be treated as Intermediate Consumption and therefore deducted from the output of sectors that incur them; or appears in the account but deducted from the total.

² National currency is Sierra Leonean leone (Le): 1 Le = 0.000324 U.S. dollars (as per March 2009)

basic needs. The rebel war resulted in a substantial reduction in the standard of living and, for many people, reduced access to food.

A poor and undernourished population is more susceptible to various diseases. Thus, rising maternal and child mortality rates, increasing rates of illiteracy, and rising unemployment levels characterize the living conditions in many parts of Sierra Leone. The HIV/AIDS pandemic has also had a major impact on all sectors of the economy through loss of production and labour force. Against this background, the government of Sierra Leone in 2005 launched the Economic Recovery Strategy, aimed at restoring economic growth, generating employment opportunities, and reducing poverty levels (Poverty Reduction Strategy Paper, March 2005).

1.4 POPULATION

The population of Sierra Leone increased from 2,180,355 in 1963 to 4,976,871 in 2004 (Central Statistics Office, 1963; SSL, 2006). The results of the previous censuses indicate that the annual population growth rate was 1.8 percent per annum during the 1985-2004 period, down from 2.3 percent reported during the 1974-1985 period, and 2.0 percent during the 1963-1974 inter-censal period.

1.5 POPULATION AND FAMILY PLANNING POLICIES AND PROGRAMMES

In 1993, the Government of Sierra Leone launched the National Population Policy for Development, Progress and Welfare (Ministry of Development, 1993). The population policy is being revised, and a first draft will be completed later in 2009. The 1993 National Population Policy for Development, Progress and Welfare sought to be humane and responsible, respecting individual freedoms and rights as well as religious beliefs and cultural values. It also recognizes that all couples and individuals have the basic right to make decisions freely and responsibly on the number and the spacing of their children and to receive the information, education, and the means to do so. Only those means or methods deemed morally acceptable, scientifically sound, culturally appropriate, and economically feasible were made available in the implementation of the policy.

The population policy reinforces and enriches national development, especially human resource development, improves the quality of life of the people, and enhances human welfare and dignity. Special emphasis was placed on regulating population quantity, enhancing population quality, and improving the health and welfare of women and children. The interplay between population and development was a constant consideration in the preparation of the 1993 policy.

In more specific terms, the goals of the national population policy include the following:

- To make development planning and policy more comprehensive and effective, by the incorporation of the demographic dimension.
- To achieve a rate of growth of the population that is sustainable by the economy.
- To contribute towards meeting the basic needs of the people and enhancing the quality and utilization of the nation's human resources.
- To promote the health and welfare of the people especially those in the high risk groups of mothers and children.
- To moderate initially the expected rise in population, and later to progressively reduce population growth rates through the promotion of voluntary family planning and small family norms, so as to facilitate the attainment of national economic and social targets.
- To guide rural-urban migration, so as to minimize socio-economic problems and to optimize benefits to migrants and non-migrants alike in rural as well as urban areas.

In order to achieve the above mentioned goals, the 1993 population policy set the following objectives:

- To improve the demographic knowledge base (i.e., data collection, processing, analysis, projections, and research on population and development interaction) on a regular basis.
- To actively promote and facilitate utilization of the knowledge base in social and economic planning, policies and projects, etc.
- To promote, clarify, and sharpen awareness and understanding amongst leaders and the public at large of population and development problems and issues.
- To provide men and women with information and education on the value of reasonable family size and child spacing to improve the welfare of the family and its members, the community, and the nation
- To pay special attention to selected groups such as young persons, women of reproductive age, and members of organized groups, in providing information and education relating to family life, fertility regulation, etc.
- To improve the quality and availability of maternal and child health care services so as to reduce infant, child, and maternal morbidity and mortality.
- To make family planning services easily accessible and affordable to couples and individuals, and to actively promote the acceptance of contraceptive practice.
- To design and implement programmes on integrated rural and urban development, to moderate and orient rural-urban migration.
- To review existing legislation as it pertains to key areas of population policy, and to provide for the improved quality of life, so as to enhance the welfare of men, women, and children.

1.6 HEALTH POLICIES AND PROGRAMMES

The Ministry of Health and Sanitation launched the National Health Policy in October 2002 (Ministry of Health and Sanitation, 2002). This document sets out the policy of the Government of Sierra Leone motivating and guiding the health sector. The previous health policy was written in 1993, nearly 17 years ago. Since then there have been a number of changes that have led to the need for updating health sector policy. Most important, the civil war suffered by the country caused major disruptions of the health system, including damage to the physical infrastructure, loss of skilled professionals and, through the wider economic effects, reduction in the resources available to the health sector. It has also resulted in changes in population patterns, and specific health problems ranging from mental trauma to physical disability. In addition to these war-related effects, there are wider changes that many countries in sub-Saharan Africa are facing that have implications for health policy. These include changing patterns of disease distribution such as the spread of HIV/AIDS, the escalating of TB and malaria, as well as the more general problems associated with the epidemiological and demographic transition. They also include a general recognition of the need to re-examine the way in which the health care sector is structured, particularly regarding increased decentralization, more partnership between the public and private sectors, and greater transparency in decision-making, including involvement of communities and other key stakeholders in the decision-making and accountability processes.

The 2002 National Health Policy is set against this varied background and has been developed to provide clear direction for the health sector in the medium term (Ministry of Health and Sanitation, 2002). It includes policies related to both the reconstruction of the health sector and the reform and development of the sector. It also fully recognizes the existence of specific policies in defined technical areas.

The goals, objectives and national health priorities are as follows:

- The overall goal of the health sector is to maintain and improve the health of all Sierra Leonean residents within the country.
- The Government of Sierra Leone is committed to pursuing such a goal in an equitable manner. It will work towards ensuring that all citizens have access to basic good quality health care. It has special responsibility to ensure the health of those citizens who are particularly vulnerable as a result of poverty, conflict, gender, or specific health problems.
- The Government of Sierra Leone also has responsibility for ensuring the provision of adequate public health services (including sanitation), for food safety, and for effective action against specific communicable diseases.
- The health of a country is not the result of health services alone, but can be affected both positively and negatively by the activities of a number of other sectors. The Ministry of Health and Sanitation has a responsibility to provide leadership and health-related advocacy to such sectors to ensure their activities are health promoting.
- Sierra Leone faces a number of major health problems. However, resource constraints, particularly regarding the availability of finance and health care professionals, means that priorities have to be set for the key health problems that will be the focus of the health sector. This does not imply that other health problems will be ignored, but rather that they will not receive targeted national investment. It is also recognized that there are differences between districts in the prevalence and incidence of specific health problems (such as Lassa fever). As such, there will be opportunities during the planning processes for local setting of priorities within the national framework.

National health priorities have been set on the basis of a number of criteria. These are: the severity of the disease in terms of its contribution to the overall burden of disease in the country, the distribution of the health problem within the country as a national problem, the feasibility and cost-effectiveness of interventions concerning the health problem, public expectations concerning the problem, and compliance with international regulations.

On the basis of the above criteria, the current national priority health problems are:

- Malaria
- Sexually transmitted infections including HIV/AIDS
- Tuberculosis
- Unsatisfactory reproductive health including maternal and neo-natal mortality
- Acute respiratory infections
- Childhood immunizable diseases
- Nutrition-related disease

- Water, food, and sanitation-borne diseases
- Disability
- Mental illness

Technical policies exist for a number of these health priorities; they set specific objectives, targets, strategies and, where appropriate, treatment protocols. In August 2002, these were policies on environmental health, immunization, drugs, health education, malaria, and HIV/AIDS (draft), and a national strategy for the development of prosthetics and orthotics services (Ministry of Health and Sanitation, 2002). Further technical policies will be developed in each of the remaining priority areas, and the existing ones will be updated as necessary.

1.7 OBJECTIVES AND ORGANIZATION OF THE 2008 SLDHS

The 2008 Sierra Leone Demographic and Health Survey (SLDHS) is a nationally representative sample survey designed to provide information on population and health issues in Sierra Leone. This is the first Demographic and Health Survey conducted in Sierra Leone and was carried out by Statistics Sierra Leone (SSL) in collaboration with the Ministry of Health and Sanitation. The 2008 SLDHS was funded by the Sierra Leone government, UNFPA, UNDP, UNICEF, DFID, USAID, and The World Bank. WHO, WFP and UNHCR provided logistical support. ICF Macro, an ICF International Company, provided technical support for the survey through the MEASURE DHS project. MEASURE DHS is sponsored by the United States Agency for International Development (USAID) to assist countries worldwide in obtaining information on key population and health indicators.

The purpose of the SLDHS is to collect national- and regional-level data on fertility and contraceptive use, marriage and sexual activity, fertility preferences, breastfeeding practices, nutritional status of women and young children, childhood and adult mortality, maternal and child health, female genital cutting, awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections, adult health, and other issues. The survey obtained detailed information on these topics from women of reproductive age and, for certain topics, from men as well. The 2008 SLDHS was carried out from late April 2008 to late June 2008, using a nationally representative sample of 7,758 households.

The survey results are intended to assist policymakers and planners in assessing the current health and population programmes and in designing new strategies for improving reproductive health and health services in Sierra Leone.

1.8 SAMPLE DESIGN

The SLDHS sample was designed to provide most of the indicators for the country as a whole, for urban and rural areas separately, and for each of four regions that were formed by grouping the 14 districts. The regional groups are as follows:

Eastern: Kailahun, Kenema, Kono districts

Northern: Bombali, Kambia, Koinadugu, Port Loko, Tonkolili districts

Southern: Bo, Bonthe, Moyamba, Pujehun districts

Western: Western Area Urban and Western Area Rural districts

A representative probability sample of households was selected for the 2008 SLDHS sample. The sample was selected in two stages. In the first stage, 353 clusters were selected from a list of enumeration areas in the master sample frame that was designed for the 2004 Sierra Leone Population

and Housing Census (SSL, 2006). In the second stage, a complete listing of households was carried out in each selected cluster. Twenty-two households were then systematically selected from each cluster for participation in the survey. This design resulted in a final sample of 7,758 households.

All women age 15-49 who were either permanent residents of the households or visitors present in the household on the night before the survey were eligible to be interviewed. In addition, all men age 15-59 in half of the households selected for the survey were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey. Height and weight measurements of female respondents and children under the age of five years were done only in the households selected for the male survey. Eligible adults and children age 6-59 months in the households selected for the male survey were tested for anaemia, and women and men were asked to provide blood samples for HIV testing. The blood samples were dried and transported to the National Reference Laboratory of the Ministry of Health and Sanitation at Lakka, where they were tested for the human immunodeficiency virus (HIV).

1.9 QUESTIONNAIRES

Three types of questionnaires were administered for the 2008 SLDHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The contents of these questionnaires were based on the model questionnaires developed by the MEASURE DHS programme for use in countries with low levels of contraceptive use. The SSL, in collaboration with other stakeholders and ICF Macro staff, held a series of meetings to adapt the model questionnaires to the situation in Sierra Leone regarding relevant issues in population, family planning, HIV/AIDS, and other health issues in Sierra Leone. Given that there are many local languages in Sierra Leone—most of which have no accepted written script, and are not taught in the schools—and given that English is widely spoken, it was decided not to attempt to translate the questionnaires into vernaculars. However, many of the questions were 'broken down' to generate a list of key words and translated into the main languages using Roman script. A list with the key words was provided to each interviewer with suggestions for using it during data collection to standardize the translation; this aspect was emphasized during the main training. The household and individual questionnaires were pretested in February 2008.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of household. The main purpose of the Household Questionnaire was to identify women and men who were eligible for the individual interview. The Household Questionnaire also collected information on the characteristics of the household dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor and roof, ownership of various durable goods, and ownership and use of mosquito nets. The Household Questionnaire was also used to record height and weight measurements of women age 15-49 and children under the age of 5 years, and women's and men's voluntary consent to give blood samples for testing. The HIV and anaemia testing procedures are described in detail in the next section.

The Women's Questionnaire was used to collect information from all women age 15-49 years and covered the following topics:

- Background characteristics (education, residential history, media exposure, etc.)
- Reproductive history and child mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care

- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Marriage and sexual activity
- Woman's work and husband's background characteristics
- Infant and child feeding practices
- Awareness and behaviour about AIDS and other sexually transmitted infections (STIs)
- Other health issues
- Female genital cutting
- Adult mortality including maternal mortality

The Men's Questionnaire was administered to all men age 15-59 living in every second household in the 2008 SLDHS sample. The Men's Questionnaire collected much the same information found in the Women's Questionnaire, but was shorter because it did not contain questions on reproductive history or maternal and child health and nutrition.

1.10 ANAEMIA AND HIV TESTING

1.10.1 Haemoglobin Testing

Haemoglobin testing is the primary method of anaemia diagnosis. Reliable measures are obtained using the HemoCue system (Hb 201+). In half of the households selected for the 2008 SLDHS, men age 15-59, women age 15-49, and children age 6-59 months were tested for anaemia. A consent statement was read to all eligible respondents or to the parent or responsible adult for children and young women age 15-17. This statement explained the purpose of the test, informed them that the results would be made available as soon as the test was completed, and requested permission for the test to be carried out.

Before taking any blood, the finger was wiped with an alcohol swab and allowed to air dry. Then, the palm side of the end of a finger was punctured with a sterile, single-use, self-retracting lancet. A drop³ of blood was collected in a HemoCue microcuvette, which also serves as a measuring device, and placed in a HemoCue photometer where the results are displayed. An informative brochure was given to each household explaining what anaemia is, the symptoms, and measures people can take to prevent anaemia. Each person whose haemoglobin level was lower than the recommended cut-off point was given a written referral recommending immediate follow-up with a health professional.

1.10.2 HIV Testing

All eligible women age 15-49 and men age 15-59 (in every second household) who were interviewed were asked to voluntarily provide three drops of blood for HIV testing. The protocol for the blood specimen collection and analysis was based on the anonymous linked protocol developed by the DHS programme and approved by ICF Macro's Institutional Review Board. The protocol for the SLDHS was also reviewed and approved by the Sierra Leone National Ethics Committee on Bio-Medical Research. The protocol allows for the merging of the HIV results with the socio-demographic data collected in the individual questionnaires, provided that information which could potentially identify an individual is destroyed before the linking is effected. This requires that identification codes

³ From consenting adults, the blood was first collected for the HIV test, followed by the anaemia test.

be deleted from the data file and that the back page of the Household Questionnaire, which contains the bar code labels and names of respondents, be destroyed prior to merging the HIV results with the individual data file.

For the purposes of blood sample collection, to obtain informed consent for collecting blood for HIV testing, interviewers explained the procedures, the confidentiality of the data, the fact that test results could not be linked or made available to the subject, and informed respondents how they could establish their HIV status through voluntary counselling and testing (VCT) services. Interviewers then collected a dried blood spot sample on a filter paper card from a finger prick using a single-use, spring-loaded, sterile lancet. Each blood sample was given a bar code label, with a duplicate label attached to the Household Questionnaire on the line showing consent for that respondent. A third copy of the same bar code label was affixed to a Blood Sample Transmittal Form to track the blood sample from the field to the laboratory. The filter papers were dried overnight in a plastic drying box, after which they were packed in individual ziploc bags with desiccants and a humidity indicator card, then placed in a larger airtight bag for each sample point. Blood samples were periodically collected in the field along with the completed questionnaires and transported to SSL headquarters in Freetown to be logged in. After this, they were taken to the National Reference Laboratory of the Ministry of Health and Sanitation at Lakka Hospital for HIV testing.

At the laboratory, the bar code labels on the dried blood spot samples were scanned into the computer using a programme specially developed by ICF Macro that pre-assigns to each sample a sequential number for ease in tracking. The blood spots were kept refrigerated or frozen depending on how long it would be until they could be tested. After the samples were allowed to attain room temperature, a circle—i.e., a completely filled and well-saturated spot without blood clot—at least 6.3 mm in diameter was taken from each filter paper using a hole punch. Each blot was placed into its pre-assigned well in the elution plate that contained 200 µl of phosphate buffered saline (PBS, pH 7.3-7.4) and left in the refrigerator overnight at 2-8°C. These eluates were then diluted and tested with Vironostika HIV Uniform II Plus O (BioMerieux). All positive samples and 10 percent of negative samples were then tested with Murex HIV 1.2.O test kit (Abbott). Finally, any discordant samples were tested on Western Blot 2.2 (Abbott) to resolve the discrepancies.

Prior to the survey, the National Reference Laboratory (NRL) had experience using its ELISA machine for testing for HIV. ICF Macro supplied the NRL staff with the necessary equipment and reagents. ICF Macro consultants visited and worked with the NRL staff and trained seven laboratory technicians in how to run the various tests and use the software. The HIV test results were merged with the individual questionnaire records after the questionnaires were destroyed and the cluster numbers scrambled.

1.11 TRAINING OF FIELD STAFF

Two hundred qualified candidates were recruited for training by Statistics Sierra Leone to serve as supervisors, field editors, interviewers, bio-marker technicians, and quality control personnel. Efforts were made to recruit high-calibre personnel nationwide to ensure appropriate linguistic and cultural diversity. The main survey training was conducted by Statistics Sierra Leone during a four-week period from 17 March to 15 April, 2008. The training was conducted by senior staff from Statistics Sierra Leone, who participated in the pretest, with support from UNFPA, UNICEF, the Ministry of Health and Sanitation, and ICF Macro. Training consisted of lectures, demonstrations, practice interviews in small groups, and examinations. The last week of training provided instruction on how to take anthropometric measurements and the procedures for anaemia and HIV testing—how to administer informed consent, how to take blood spot samples, how to dry the filter papers, and how to pack them up the next morning. During the final week of training, participants had two days of field practice. The final day of training consisted of a session with the team supervisors and field editors to train them on how to supervise the fieldwork and how to edit completed questionnaires.

1.12 MAIN FIELDWORK (DATA COLLECTION)

Fieldwork for the 2008 SLDHS took place over a two-month period from the end of April to the end of June 2008. Twenty-four teams carried out the data collection. Each team consisted of a team supervisor, one field editor, one bio-marker technician, two female interviewers, and one male interviewer.

Senior DHS technical staff visited teams regularly to review the work and monitor data quality. Eight SSL staff and members of the Technical Committee coordinated fieldwork activities and visited the teams at regular intervals to monitor the work. The SSL Director in charge of the project, ICF Macro staff, and the DHS resident consultant monitored fieldwork in addition to SSL top management and the UN interagency team.

1.13 DATA PROCESSING

The processing of the SLDHS results began shortly after fieldwork commenced. Completed questionnaires were returned regularly from the field to SSL headquarters in Freetown, where they were entered and edited by data processing personnel recruited and trained for this task. The data processing personnel included two supervisors, five office editors, 15 data entry editors, 23 data entry operators, and four secondary editors. Data were entered using the CSPro computer package. All data were entered twice for 100 percent verification. The concurrent processing of data was a distinct advantage for assessing data quality because SSL was able to advise field teams of errors detected during data entry. The data entry and editing phase of the survey was completed in October 2008.

1.14 RESPONSE RATES

Table 1.1 shows response rates for the 2008 SLDHS. A total of 7,758 households were selected in the sample, of which 7,461 were found occupied at the time of the fieldwork. The shortfall is largely due to households that were away for an extended period of time and structures that were found to be vacant or destroyed. Of the existing households, 7,284 were successfully interviewed, yielding a household response rate of 98 percent.

Table 1.1 Results of the household and individual interviews			
Number of households, number of interviews, and response rates, according to residence (unweighted), Sierra Leone 2008			
Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	3,184	4,574	7,758
Households occupied	3,068	4,393	7,461
Households interviewed	2,956	4,328	7,284
Household response rate ¹	96.3	98.5	97.6
Interviews with women age 15-49			
Number of eligible women	3,385	4,460	7,845
Number of eligible women interviewed	3,160	4,214	7,374
Eligible women response rate ²	93.4	94.5	94.0
Interviews with men age 15-59			
Number of eligible men	1,559	1,982	3,541
Number of eligible men interviewed	1,403	1,877	3,280
Eligible men response rate ²	90.0	94.7	92.6

¹ Households interviewed/households occupied
² Respondents interviewed/eligible respondents

In the households interviewed in the survey, a total of 7,845 eligible women were identified, of whom 7,374 were successfully interviewed, yielding a response rate of 94 percent. With regard to the male survey results, 3,541 eligible men were identified, of whom 3,280 were successfully interviewed, yielding a response rate of 93 percent. The response rates are lower in the urban than rural sample, especially for men.

The principal reason for non-response among eligible men and women was the failure to find individuals at home despite repeated visits to the household, followed by refusal to be interviewed. The slightly lower response rate for men reflects the more frequent and longer absences of men from the households.

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2

2.1 INTRODUCTION

This chapter presents a description of the demographic and socio-economic characteristics of the population in households¹ sampled and interviewed in the 2008 Sierra Leone Demographic and Health Survey (SLDHS). All usual residents and visitors were listed in the Household Questionnaire. The Household Questionnaire collected information on characteristics of the household population, such as age, sex, education, and survivorship of biological parents. This chapter also describes the characteristics of the household dwelling, including source of drinking water, availability of electricity, sanitation facilities, building materials, and possession of household durable goods.

The information presented in this chapter is intended to facilitate the interpretation of key demographic, socio-economic, and health indicators presented later in this report. It is also intended to assist in the measurement of the representativeness of the survey sample.

2.2 HOUSEHOLD POPULATION BY AGE, SEX AND RESIDENCE

Age and sex are the most important demographic variables upon which the needs and services of a population are based. Age and sex structure have a major impact on the population's fertility, mortality, and nuptiality (marriage) patterns.

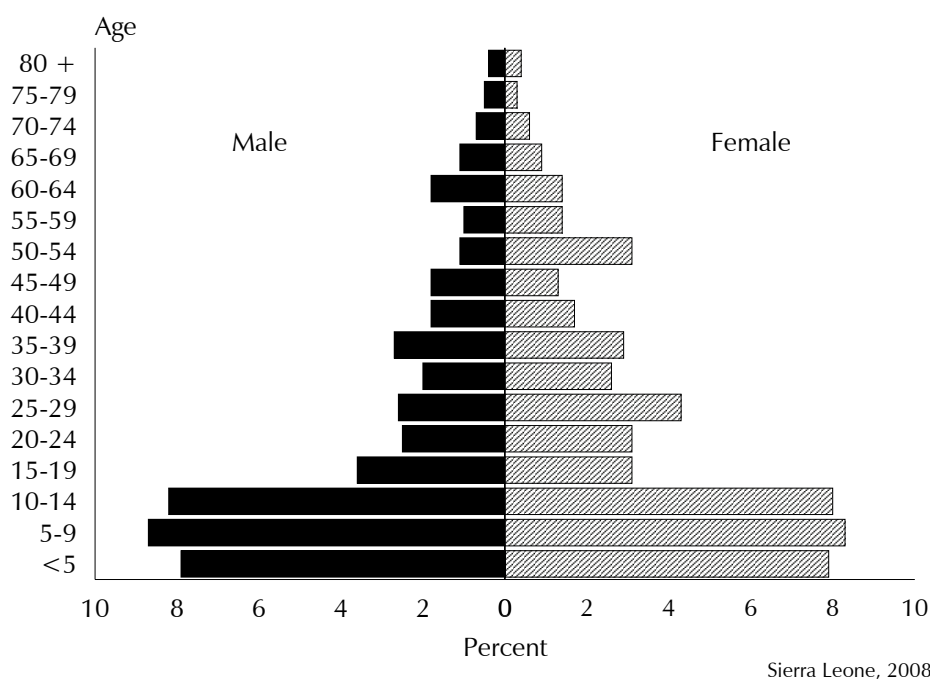
Table 2.1 shows the percent distribution of the de facto household population by five-year age groups according to age, sex, and residence. The household population totals 41,608 persons, of which 49 percent are males and 51 percent are females. Just over two-thirds of the population live in rural areas. The population of Sierra Leone is youthful, with about 49 percent under 15 years of age, an indication of a population with high fertility. Approximately 36 percent of the population is age 15-49.

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	13.3	12.6	13.0	17.7	16.7	17.2	16.2	15.4	15.8
5-9	14.7	14.8	14.8	19.5	16.6	18.0	17.9	16.0	17.0
10-14	18.2	17.9	18.0	16.2	14.5	15.3	16.9	15.6	16.2
15-19	10.5	8.5	9.5	6.0	4.9	5.4	7.5	6.1	6.7
20-24	7.8	7.9	7.9	4.0	5.1	4.5	5.2	6.0	5.6
25-29	6.4	8.1	7.2	4.9	8.4	6.7	5.4	8.3	6.9
30-34	4.7	5.4	5.1	4.0	5.0	4.5	4.2	5.1	4.7
35-39	5.0	5.8	5.4	5.9	5.6	5.7	5.6	5.6	5.6
40-44	4.2	3.1	3.6	3.6	3.3	3.5	3.8	3.3	3.5
45-49	3.6	2.1	2.8	3.9	2.8	3.3	3.8	2.6	3.2
50-54	2.1	4.9	3.5	2.2	6.5	4.4	2.2	5.9	4.1
55-59	1.8	2.5	2.1	2.2	2.7	2.5	2.0	2.6	2.3
60-64	3.4	2.6	3.0	3.7	2.9	3.3	3.6	2.8	3.2
65-69	1.7	1.4	1.6	2.4	1.9	2.2	2.2	1.8	2.0
70-74	1.1	1.0	1.1	1.7	1.3	1.5	1.5	1.2	1.4
75-79	0.8	0.6	0.7	1.2	0.7	0.9	1.0	0.7	0.8
80 +	0.5	0.7	0.6	0.9	0.9	0.9	0.7	0.9	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,657	6,985	13,642	13,545	14,421	27,966	20,202	21,406	41,608

¹ In this survey, a household is defined as a person or a group of persons, related or unrelated, who live together and share a common source of food and livelihood, and recognize one person as head.

Figure 2.1 shows the age and sex structure of the population. The population pyramid has a wide base, indicating that a large proportion of the population is made up of children under age 15.

Figure 2.1 Population Pyramid



2.2.1 Household Composition

Table 2.2 shows the composition of households in the survey. Overall, 22 percent of households are headed by females. Female-headed households are more common in urban than in rural areas (26 and 21 percent, respectively).

The average household size in Sierra Leone is 5.9 persons. The household size is slightly larger in rural areas than in urban areas (6.0 persons, compared with 5.7 persons). Urban households are more likely than rural households to have just one or two members (13 percent, compared with 8 percent). Overall, one in six households (16 percent) have nine or more members.

Almost four in ten households (39 percent) include children whose mother and father are not present (foster children), and 43 percent of households include foster children and/or orphans. Urban households are much more likely than rural households to have foster children (45 and 36 percent, respectively). Consequently, urban households are more likely than rural households to have foster children and/or orphans (49 and 41 percent, respectively). There are more households with single orphans than with double orphans (17 and 4 percent, respectively).

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, Sierra Leone 2008			
Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	74.3	79.3	77.6
Female	25.7	20.7	22.4
Total	100.0	100.0	100.0
Number of usual members			
0	0.0	0.0	0.0
1	6.6	2.8	4.1
2	6.0	4.9	5.3
3	11.7	9.7	10.4
4	14.4	14.7	14.6
5	15.0	17.1	16.4
6	14.6	15.8	15.4
7	9.5	11.3	10.7
8	6.5	7.0	6.9
9+	15.8	16.5	16.2
Total	100.0	100.0	100.0
Mean size of households			
	5.7	6.0	5.9
Percentage of households with orphans and foster children under 18 years of age			
Foster children ¹	45.0	35.6	38.8
Double orphans	5.0	3.5	4.0
Single orphans	18.3	15.9	16.8
Foster and/or orphan children	48.6	40.6	43.3
Number of households	2,469	4,815	7,284

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

¹ Children under 18 years of age living in households with neither their mother nor their father present.

2.2.2 Children's Living Arrangement and Orphanhood

Detailed information on living arrangements and orphanhood for children under 18 years of age is presented in Table 2.3. Of the 22,280 children under age 18 reported in the 2008 SLDHS, about half live with both parents, 10 percent live with their mother only and their father is living, 9 percent live with their father only and their mother is living, and 26 percent live with neither of their natural parents although both parents are living. The table also provides information on type of orphanhood, that is, the proportion of children who have lost one or both parents. Eleven percent of children under 18 years of age have lost one parent, while 2 percent have lost both parents.

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, Sierra Leone 2008

Background characteristic	Living with mother but not with father				Living with father but not with mother				Not living with either parent				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	Father alive	Father dead	Mother alive	Mother dead	Only father alive	Only mother alive	Both alive	Both dead				
Age																
0-4	62.3	14.1	2.6	0.4	5.2	0.4	11.3	0.8	1.0	0.7	1.7	100.0	15.4	5.5	6,709	
<2	68.2	18.7	3.0	0.1	3.0	0.1	4.1	0.4	0.6	0.4	1.5	100.0	7.1	4.6	2,691	
2-4	58.4	11.0	2.3	0.7	6.6	0.7	16.1	1.1	1.2	0.9	1.8	100.0	21.0	6.2	4,017	
5-9	51.7	7.7	3.2	1.1	9.2	1.1	19.6	1.3	2.7	1.8	1.7	100.0	27.1	10.1	7,143	
10-14	41.4	7.2	5.0	1.9	11.0	1.9	21.8	1.5	4.7	2.9	2.5	100.0	33.6	16.1	6,837	
15-17	36.9	7.8	6.6	2.4	8.8	2.4	19.9	1.7	8.1	3.4	4.5	100.0	37.5	22.1	1,591	
Sex																
Male	51.8	9.1	3.6	1.5	9.3	1.5	16.7	1.1	3.1	1.8	2.0	100.0	24.7	11.2	11,342	
Female	49.6	9.9	3.9	0.9	7.6	0.9	18.9	1.4	3.3	2.0	2.4	100.0	28.0	11.6	10,938	
Residence																
Urban	40.4	13.0	3.5	0.9	8.0	0.9	22.4	1.5	4.5	2.7	3.0	100.0	34.1	13.2	7,064	
Rural	55.5	7.8	3.9	1.4	8.7	1.4	15.7	1.1	2.6	1.6	1.8	100.0	22.7	10.6	15,216	
Region																
Eastern	58.0	9.4	4.0	0.9	6.7	0.9	13.5	1.0	2.8	1.8	1.8	100.0	21.0	10.6	3,986	
Northern	51.0	8.3	4.3	1.4	9.7	1.4	16.9	1.1	3.1	2.0	2.1	100.0	25.4	12.1	10,421	
Southern	53.1	9.2	2.4	1.2	8.1	1.2	19.5	1.1	2.5	1.4	1.5	100.0	26.0	8.6	4,232	
Western	39.1	13.2	3.8	1.1	7.5	1.1	23.1	1.9	4.5	2.3	3.4	100.0	35.3	13.7	3,640	
Wealth quintile																
Lowest	56.8	7.0	4.7	1.6	7.4	1.6	15.0	1.2	2.4	1.3	2.6	100.0	22.5	11.2	4,345	
Second	53.9	8.7	3.8	1.4	9.7	1.4	15.3	1.2	2.5	1.8	1.7	100.0	22.5	10.8	4,632	
Middle	55.4	7.6	3.9	1.1	8.4	1.1	15.8	1.0	2.9	2.3	1.6	100.0	23.6	11.1	4,657	
Fourth	47.2	11.5	3.8	1.1	8.8	1.1	19.4	1.1	3.4	2.0	1.6	100.0	27.6	11.5	4,548	
Highest	39.0	12.8	2.6	1.0	8.1	1.0	24.2	1.7	5.0	2.1	3.4	100.0	36.4	12.6	4,097	
Total <15	51.8	9.6	3.6	1.1	8.5	1.1	17.6	1.2	2.8	1.8	2.0	100.0	25.5	10.6	20,689	
Total <18	50.7	9.5	3.8	1.2	8.5	1.2	17.8	1.2	3.2	1.9	2.2	100.0	26.3	11.4	22,280	

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

2.3 SCHOOL ATTENDANCE BY SURVIVORSHIP OF PARENTS AND BY ORPHANHOOD STATUS

Children who are orphaned or live in a house with chronically ill adults may be at a greater risk of dropping out of school because of lack of money to pay school fees or the need to stay at home to care for the sick relative. The SLDHS included information to monitor such situations.

Table 2.4 presents data on school attendance of children age 10-14 by parental survival according to background characteristics. The first panel of the table shows the proportion of children attending school whose parents are both dead and the proportion whose parents are both living and the child is residing with at least one parent. The last panel of the table compares school attendance of orphans and non-orphans. The overall ratio of school attendance of children whose parents are dead to those whose parents are living and the child resides with at least one parent is 0.62. This indicates that six in ten children whose parents are dead have access to school, compared with all children whose parents are living and the child resides with at least one parent. The gap in school attendance between children whose parents are living and children whose parents are dead is wider for girls, children in rural areas, and among children in the lower wealth quintiles. There are large differentials in the ratio by region. In the Eastern and Southern regions the ratio is less than 0.4, while in the Northern and Western regions it is 0.7.

Table 2.4 also shows that 61 percent of orphans are attending school, compared with 74 percent of non-orphans. This brings the school attendance ratio of orphans to non-orphans to 0.83, which means that orphans are less likely to attend school compared with non-orphans. The disparity in school attendance between orphans and non-orphans is greater among girls, children in rural areas, and children in households in the lower wealth quintiles. The ratio also varies by region. In the Eastern and Southern regions the ratio is less than 0.8, while in the Northern and Western regions it is 0.84 and 0.87, respectively.

Background characteristic	Percentage attending school by survivorship of parents					Percentage attending school by orphanhood status				
	Both parents dead		Both parents living and child resides with at least one parent		Ratio ¹	Orphan		Non-orphan		Ratio ²
	Percentage	Number	Percentage	Number		Percentage	Number	Percentage	Number	
Sex										
Male	53.1	92	77.7	2,121	0.68	66.4	544	75.8	2,912	0.88
Female	42.4	109	74.3	1,951	0.57	56.2	556	71.9	2,824	0.78
Residence										
Urban	62.9	101	92.0	1,283	0.68	76.7	435	88.3	2,060	0.87
Rural	31.4	100	68.8	2,789	0.46	51.2	665	65.8	3,676	0.78
Region										
Eastern	(28.2)	23	77.8	671	0.36	60.2	160	76.4	867	0.79
Northern	50.3	101	71.3	2,064	0.70	58.4	560	69.6	2,786	0.84
Southern	(24.9)	33	72.2	696	0.35	48.6	149	67.6	1,007	0.72
Western	66.8	44	93.7	641	0.71	77.0	232	88.8	1,077	0.87
Wealth quintile										
Lowest	*	22	50.8	716	0.39	39.5	186	49.7	939	0.79
Second	(18.2)	40	70.8	874	0.26	50.9	221	67.0	1,146	0.76
Middle	(51.9)	43	74.6	863	0.70	63.3	222	71.0	1,139	0.89
Fourth	(57.4)	56	88.1	879	0.65	65.8	251	82.8	1,237	0.79
Highest	(72.2)	40	94.1	740	0.77	82.8	221	91.6	1,275	0.90
Total	47.3	201	76.1	4,072	0.62	61.2	1,101	73.8	5,736	0.83

2.4 EDUCATION OF THE HOUSEHOLD POPULATION

Education is a key determinant of the lifestyle and status an individual enjoys in a society. Studies have consistently shown that educational attainment has a strong effect on health behaviours and attitudes. In general, the higher the level of education a woman has attained, the more knowledgeable she is about the use of health facilities, family planning methods, and the health of her children. Results from the 2008 SLDHS can be used to look at educational attainment and current school attendance among household members.

Sierra Leone's education system has been unstable for more than 10 years because of the civil crisis; however, a major restructuring of the infrastructure and educational programme is being undertaken by the government. The government of Sierra Leone has adopted a policy of free primary education in all government schools for all children. The government is undertaking massive renovation of infrastructure damaged during the war, and it is revising and expanding programmes in the educational system.

For purposes of this analysis, age six is used as the age for entry into the primary level. Because of the war, however, many children who should have started school when they reached school-going age never got to start school. Officially, primary school consists of six years of education; junior secondary school and senior secondary school each consist of three years of education.

Tables 2.5.1 and 2.5.2 show the percent distribution of the female and male household population age six years and over by the highest level of schooling attended or completed, and the median grade completed, according to background characteristics.

Overall, 58 percent of women and 46 percent of men have no education. Only one in four women (25 percent) and 28 percent of men have some primary education. Men are almost twice as likely as women to have attended secondary school (22 and 12 percent, respectively).

Age is negatively associated with education attainment; younger people are more likely to have received education than older people. While 41 percent of girls and 43 percent of boys age 6-9 have no education, for women age 25 or older the proportion is 70 percent or higher, and for men age 25 or older the proportion is 54 percent or higher.

Tables 2.5.1 and 2.5.2 show that younger people are more likely to be educated than older people. Whereas about 57 percent of girls age 6-14 years have some primary education, the corresponding proportions for women age 15-19 and 20-24 are 21 and 12 percent, respectively. The proportion is even lower for older women. The same pattern is observed for men.

Table 2.5.1 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, Sierra Leone 2008

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	40.6	57.5	0.3	0.2	0.0	0.0	1.4	100.0	2,883	0.0
10-14	26.0	57.4	5.3	10.5	0.0	0.1	0.7	100.0	3,333	2.3
15-19	33.8	21.1	8.7	34.9	0.4	0.3	0.9	100.0	1,299	4.4
20-24	57.3	12.0	2.6	20.1	3.4	3.3	1.4	100.0	1,287	0.0
25-29	73.1	8.8	2.2	9.3	1.7	3.4	1.5	100.0	1,781	0.0
30-34	70.2	7.4	3.4	11.7	2.6	3.6	1.1	100.0	1,098	0.0
35-39	74.8	6.2	3.6	10.1	1.7	2.2	1.4	100.0	1,207	0.0
40-44	74.7	5.5	2.8	10.2	2.4	3.0	1.3	100.0	699	0.0
45-49	80.1	4.7	3.0	8.4	0.9	1.6	1.3	100.0	554	0.0
50-54	85.3	1.9	1.9	5.6	1.0	1.4	2.9	100.0	1,271	0.0
55-59	88.2	2.1	0.9	3.0	0.9	1.7	3.2	100.0	564	0.0
60-64	90.1	1.8	1.8	1.9	1.1	1.2	2.2	100.0	603	0.0
65+	93.1	0.9	0.7	1.0	0.2	0.7	3.4	100.0	964	0.0
Residence										
Urban	37.0	28.6	5.0	21.4	2.8	3.9	1.3	100.0	5,946	1.9
Rural	68.8	23.5	2.0	3.8	0.1	0.1	1.6	100.0	11,612	0.0
Region										
Eastern	61.5	27.0	2.9	6.6	0.2	0.5	1.3	100.0	3,082	0.0
Northern	64.6	24.9	2.4	5.7	0.2	0.3	1.8	100.0	7,747	0.0
Southern	64.4	23.4	2.9	7.0	0.4	0.7	1.2	100.0	3,489	0.0
Western	32.2	26.3	5.0	25.3	4.5	5.5	1.3	100.0	3,239	3.3
Wealth quintile										
Lowest	77.5	17.0	1.2	2.1	0.0	0.0	2.2	100.0	3,390	0.0
Second	68.0	25.4	1.8	3.2	0.0	0.1	1.6	100.0	3,528	0.0
Middle	65.7	26.1	2.5	4.6	0.1	0.1	1.0	100.0	3,426	0.0
Fourth	53.0	29.2	4.2	11.0	0.5	0.8	1.3	100.0	3,562	0.0
Highest	28.0	28.2	5.4	26.8	4.3	5.8	1.4	100.0	3,652	3.7
Total	58.0	25.2	3.1	9.7	1.0	1.4	1.5	100.0	17,558	0.0

Note: Total includes 16 women with information missing on age

¹ Completed grade 6 at the primary level

² Completed grade 3 at the senior secondary school level

More than two-thirds (69 percent) of women in the rural areas have no education and only about one-quarter (24 percent) have some primary education. The situation is worse for secondary education; only about 4 percent of women in rural areas have some secondary education. This pattern is seen across all regions except in the Western Region, where 25 percent of women have some secondary education, and 10 percent have completed secondary education.

Table 2.5.2 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, Sierra Leone 2008

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	43.4	54.5	0.1	0.2	0.0	0.0	1.9	100.0	3,061	0.0
10-14	21.8	59.1	6.3	11.8	0.0	0.0	1.0	100.0	3,412	2.7
15-19	23.1	23.0	6.7	45.1	0.7	0.5	0.8	100.0	1,507	5.3
20-24	33.1	9.4	3.4	42.4	7.1	4.1	0.7	100.0	1,058	6.5
25-29	53.7	8.4	2.7	20.7	6.5	6.5	1.5	100.0	1,082	0.0
30-34	55.7	9.7	4.0	15.6	4.5	8.7	1.8	100.0	852	0.0
35-39	58.9	8.4	3.9	18.0	3.8	6.3	0.7	100.0	1,141	0.0
40-44	55.2	6.2	2.4	19.4	7.5	8.3	0.9	100.0	768	0.0
45-49	63.7	8.2	2.3	15.2	4.0	5.5	1.1	100.0	767	0.0
50-54	60.9	5.0	2.6	17.0	5.8	7.5	1.2	100.0	440	0.0
55-59	63.8	6.9	2.8	12.9	6.0	5.6	2.0	100.0	414	0.0
60-64	78.4	1.8	2.4	8.6	2.4	4.5	2.0	100.0	734	0.0
65+	85.4	3.1	0.9	4.9	1.4	2.6	1.8	100.0	1,108	0.0
Residence										
Urban	23.8	27.7	5.0	29.3	5.7	7.3	1.2	100.0	5,641	4.6
Rural	57.2	28.4	2.5	8.9	0.8	0.8	1.4	100.0	10,720	0.0
Region										
Eastern	51.5	28.5	3.6	12.6	1.4	1.5	0.9	100.0	2,866	0.0
Northern	50.1	30.2	3.2	12.2	1.1	1.2	1.9	100.0	7,122	0.0
Southern	54.1	26.9	2.2	12.7	1.5	1.8	0.8	100.0	3,335	0.0
Western	20.6	24.3	4.9	31.4	7.8	10.1	0.9	100.0	3,038	5.8
Wealth quintile										
Lowest	69.2	22.4	1.8	4.3	0.2	0.1	2.1	100.0	3,191	0.0
Second	57.2	31.0	2.1	7.6	0.5	0.2	1.3	100.0	3,233	0.0
Middle	50.7	31.7	3.1	11.5	1.1	0.8	1.3	100.0	3,203	0.0
Fourth	35.7	32.3	4.8	21.3	2.5	2.5	0.9	100.0	3,258	1.8
Highest	18.2	23.7	4.9	33.5	7.8	10.9	1.0	100.0	3,477	6.2
Total	45.7	28.2	3.4	16.0	2.5	3.0	1.3	100.0	16,361	0.1

Note: Total includes 19 men with information missing on age

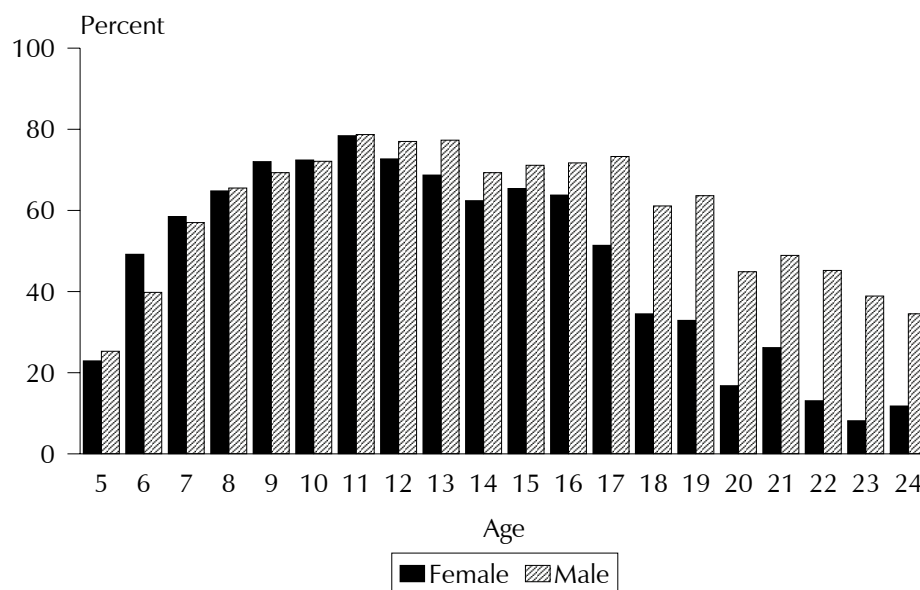
¹ Completed grade 6 at the primary level

² Completed grade 3 at the senior secondary school level

There are differentials in education attainment by urban-rural residence. In general, urban residents have higher levels of education than rural residents. For instance, the median years of schooling completed for urban women and men are two and five years, respectively, whereas for rural women and men, the corresponding proportions are zero years. As expected, men and women in the Western Region (which includes Freetown, the capital) are better educated than their counterparts in the other regions.

As expected, educational attainment is highly correlated with household wealth. The proportion of women with no education increases from 28 percent among those in the highest quintile to 78 percent among those in the lowest wealth quintile, and only 2 percent women in the lowest quintile have at least some secondary education, compared with 27 percent of women in the highest quintile. Similarly, only 4 percent of men in the lowest quintile have at least some secondary education, compared with 34 percent of men in the highest quintile. Figure 2.2 shows the educational attainment of women and men in the 2008 SLDHS.

Figure 2.2 Age-specific Attendance Rates for the de facto Population Age 5-24



Sierra Leone, 2008

2.5 SCHOOL ATTENDANCE RATIOS

Table 2.6 presents net attendance ratios (NARs) and gross attendance ratios (GARs) for the household population by level of schooling and sex, according to background characteristics. The NAR for primary school measures the proportion of children of primary school age who are attending primary school, while the GAR represents the total number of primary school pupils age 5-24 as a percentage of children of primary school age. In Sierra Leone, the levels refer to 6-11 years for primary and 12-17 years for secondary. The GAR is usually higher than the NAR because the GAR includes participation of those who may be older or younger than the official age range for that level. Pupils who are over age for a given level of school may have started school late, may have repeated one or more classes in school, or may have dropped out of school and later returned.

The NAR indicates that 62 percent of children of primary school age are attending primary school. The NARs for primary school are higher in urban (76 percent) than in the rural areas (56 percent), and highest in the Western Region (79 percent). The NAR in other regions ranges from 57 percent in the Northern Region to 63 percent in the Eastern Region. The GAR indicates that overall, there are children in primary school who are not of primary school age, with ratios of 92 for males and 93 for females.

The Gender Parity Index (GPI) shows the ratio of female to male GARs. The overall GPI at the primary level is about 1.00, which indicates equality in the participation rates for males and females in primary school. At the primary school level, the (GPI) varies slightly across subgroups. At the secondary level, the overall GPI is 0.67. GPI is higher in urban (0.73) than in rural areas (0.55) and ranges from 0.57 in the Northern Region to 0.74 in the Western Region.

Table 2.6 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, Sierra Leone 2008

Background characteristic	Net attendance ratio ¹			Gender Parity Index (GPI) ³	Gross attendance ratio ²			Gender Parity Index (GPI) ³
	Male	Female	Total		Male	Female	Total	
PRIMARY SCHOOL								
Residence								
Urban	75.7	76.4	76.1	1.01	114.9	113.0	113.9	0.98
Rural	54.5	56.5	55.5	1.04	83.4	83.3	83.3	1.00
Region								
Eastern	61.4	64.5	63.0	1.05	93.6	96.5	95.1	1.03
Northern	56.2	56.9	56.5	1.01	87.6	85.8	86.8	0.98
Southern	58.9	64.0	61.3	1.09	87.5	87.9	87.7	1.00
Western	79.9	78.1	78.7	0.99	117.1	116.1	116.6	0.99
Wealth quintile								
Lowest	43.9	42.7	43.3	0.97	66.6	62.6	64.7	0.94
Second	54.8	60.3	57.4	1.10	85.0	85.8	85.4	1.01
Middle	58.8	60.3	59.5	1.03	90.4	88.7	89.6	0.98
Fourth	72.2	70.4	71.3	0.97	108.7	107.9	108.3	0.99
Highest	79.4	80.7	80.1	1.02	120.2	119.1	119.6	0.99
Total	60.6	62.9	61.7	1.04	92.4	92.8	92.6	1.00
SECONDARY SCHOOL								
Residence								
Urban	48.1	43.4	45.8	0.90	93.0	67.7	80.5	0.73
Rural	19.2	12.7	16.0	0.66	31.7	17.3	24.7	0.55
Region								
Eastern	23.5	20.6	22.1	0.87	47.5	33.4	40.5	0.70
Northern	27.9	18.8	23.6	0.68	48.2	27.7	38.5	0.57
Southern	18.5	19.7	19.1	1.07	42.5	28.8	35.6	0.68
Western	52.3	45.0	48.5	0.86	91.4	67.9	79.4	0.74
Wealth quintile								
Lowest	10.7	8.3	9.6	0.78	17.7	11.9	15.0	0.67
Second	15.4	9.7	12.7	0.63	25.8	13.6	20.0	0.53
Middle	22.6	17.2	20.0	0.76	37.4	23.0	30.4	0.61
Fourth	35.8	27.5	31.7	0.77	70.3	41.5	56.0	0.59
Highest	56.7	48.8	52.7	0.86	105.0	76.4	90.6	0.73
Total	30.6	25.1	27.9	0.82	56.0	37.8	47.1	0.67

¹ The NAR for primary school is the percentage of the primary-school-age (6-11 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (12-17 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.

² The GAR for primary school is the total number of primary school students, 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.

³ The 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.

2.6 GRADE REPETITION AND DROP-OUT RATE

Repetition and drop-out rates describe the flow of pupils through the educational system in Sierra Leone. Repetition rates indicate the percentage of pupils who attended a particular class during the 2006-2007 academic year who attended the same class again during the 2007-2008 academic year. Drop-out rates show the percentage of pupils who attended class during the 2006-2007 academic year but did not attend school the following year. Repetition and drop-out rates approach zero when pupils nearly always progress to the next grade at the end of the school year. Repetition and drop-out rates often vary across grades, indicating points in the school system where pupils are not regularly promoted to the next grade or they decide to drop out of school.

Table 2.7 shows the repetition and drop-out 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.

The repetition rate declines from 5 percent in grade 1 to 2 percent in grade 5, then rises to 3 percent in grade 6. There are small variations by gender and urban-rural residence; however, larger differentials are observed by region, especially in grade 1. While 9 percent of students in the Eastern Region repeat grade 1, only 2 percent of first graders in the Northern Region repeat the grade. Drop-out rates vary less than repetition rates; in all grades the drop-out rate is around 1 percent.

Table 2.7 Grade repetition and dropout rates						
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, Sierra Leone 2008						
Background characteristic	School grade					
	1	2	3	4	5	6
REPETITION RATE¹						
Sex						
Male	4.4	3.1	1.3	2.9	2.1	3.0
Female	5.1	2.9	3.2	2.4	1.6	3.7
Residence						
Urban	3.7	3.3	2.0	1.6	2.4	3.4
Rural	5.2	2.9	2.5	3.4	1.5	3.2
Region						
Eastern	9.2	1.7	3.4	3.5	2.5	5.0
Northern	2.2	4.0	1.2	3.4	1.5	1.5
Southern	5.6	2.3	4.6	1.8	2.2	8.5
Western	5.0	2.6	2.3	1.1	2.0	2.9
Wealth quintile						
Lowest	7.6	2.4	2.1	5.6	2.0	3.6
Second	4.2	3.1	2.7	3.6	1.9	4.1
Middle	3.0	4.7	3.1	2.0	0.7	3.2
Fourth	5.6	1.7	1.5	2.4	2.6	3.5
Highest	4.0	3.1	2.1	1.5	2.0	2.8
Total	4.7	3.0	2.3	2.7	1.9	3.3
DROPOUT RATE²						
Sex						
Male	0.8	0.5	0.8	1.1	1.8	0.8
Female	1.2	0.8	1.3	0.9	1.9	2.0
Residence						
Urban	0.7	0.3	0.5	0.3	1.7	0.6
Rural	1.1	0.9	1.4	1.5	2.0	2.2
Region						
Eastern	1.5	1.6	0.6	1.9	0.2	2.7
Northern	1.1	0.5	1.5	1.5	2.0	1.8
Southern	0.2	0.0	0.0	0.0	2.7	0.0
Western	1.1	0.8	1.2	0.3	2.2	0.0
Wealth quintile						
Lowest	1.3	1.9	0.0	4.2	1.8	0.9
Second	1.1	0.3	2.1	1.1	3.5	7.4
Middle	1.6	0.9	1.4	0.7	0.7	1.5
Fourth	0.3	0.4	0.6	0.8	1.9	0.5
Highest	0.9	0.3	0.9	0.3	1.4	0.4
Total	1.0	0.7	1.1	1.0	1.9	1.3
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.						

2.7 HOUSEHOLD DRINKING WATER

To assess the socio-economic conditions under which the population lives, respondents were asked to give specific information about their household environment. The 2008 SLDHS collected information about drinking water, including the source, time taken to collect water, persons who

usually collect the water, and any water treatment prior to drinking. The source of drinking water is an indicator of whether or not the water is suitable for drinking. Sources of water believed to be relatively free of disease are improved sources such as piped water into dwelling/yard/plot; public taps/standpipes, tube wells or bore holes, protected dug wells, protected spring, and rainwater. Non-improved sources, like unprotected dug wells, unprotected springs, and surface water are more likely to have disease-causing agents that have a negative impact on health.

Table 2.8 presents information on the drinking water of households in the 2008 SLDHS. More than half (51 percent) of households obtain drinking water from improved sources: 22 percent from protected dug wells and 14 percent from public taps/standpipes. Similar proportions are seen for the population; half of the population obtains drinking water from an improved source: 23 percent from protected dug wells and 13 percent from public taps.

There is a substantial difference in access to improved water sources between urban and rural households. More than four-fifths (83 percent) of urban households have access to improved sources of water, compared with 34 percent of rural households. The most common source of water in rural areas is surface water (40 percent), while in urban areas 28 percent of households obtain water from protected dug wells, 27 percent from public stand pipes, and 20 percent have water piped into their dwelling or yard.

Only 13 percent of households in Sierra Leone have water on their premises. More than half of households take less than 30 minutes to get water, while 29 percent require 30 minutes or more to obtain drinking water. Urban households are much more likely than rural households to have the water close to home; 30 percent of urban households have the water source on their premises, compared with 4 percent of households in rural areas.

Water is most often collected by adult female household members (57 percent), followed by female children under age 15 (14 percent). This pattern is more typical in rural areas (68 percent) than in urban areas (36 percent).

Nine in ten households do not treat water prior to drinking. The most popular way to treat water is by adding bleach or chlorine (6 percent). Urban households are more likely than rural households to treat the water; 14 percent of households in urban areas use appropriate treatment of water, compared with 4 percent of households in rural areas.

Table 2.8 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, Sierra Leone 2008

Characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	82.9	34.3	50.8	81.3	35.1	50.3
Piped water into dwelling/yard/plot	20.4	1.0	7.6	19.3	1.0	7.1
Public tap/standpipe	26.5	7.1	13.7	24.3	6.9	12.7
Tube well or borehole	6.3	6.4	6.4	5.9	6.3	6.2
Protected dug well	28.0	18.8	21.9	30.1	19.9	23.3
Protected spring	1.6	0.9	1.1	1.6	0.9	1.2
Non-improved source	16.1	65.5	48.7	18.0	64.6	49.2
Unprotected dug well	9.4	15.3	13.3	10.8	15.1	13.7
Unprotected spring	2.6	9.5	7.1	2.8	9.0	6.9
Tanker truck/cart with small tank	0.1	0.4	0.3	0.1	0.4	0.3
Surface water	4.0	40.2	27.9	4.3	40.1	28.3
Bottled water, improved source for cooking/ washing ¹	0.6	0.1	0.2	0.4	0.1	0.2
Bottled water, non- improved source for cooking/washing ¹	0.2	0.0	0.1	0.1	0.0	0.0
Missing	0.2	0.2	0.2	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water	83.4	34.4	51.0	81.7	35.2	50.5
Time to obtain drinking water (round trip)						
Water on premises	30.3	4.0	13.0	30.7	4.5	13.1
Less than 30 minutes	32.9	60.5	51.2	33.0	58.5	50.1
30 minutes or longer	33.1	26.8	28.9	32.0	28.2	29.5
Don't know/missing	3.7	8.7	7.0	4.2	8.7	7.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult female 15+	35.5	68.0	57.0	35.6	68.2	57.5
Adult male 15+	14.0	6.0	8.7	10.7	3.9	6.2
Female child under age 15	11.9	14.7	13.7	14.2	16.0	15.4
Male child under age 15	6.2	6.0	6.0	6.6	6.2	6.3
Other	1.5	0.8	1.0	1.4	0.6	0.8
Water on premises	30.3	4.0	13.0	30.7	4.5	13.1
Missing	0.7	0.6	0.6	0.7	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking²						
Boiled	1.6	0.2	0.7	1.5	0.2	0.6
Bleach/chlorine	11.1	2.8	5.6	12.9	2.9	6.2
Strained through cloth	2.2	0.9	1.4	2.1	0.9	1.3
Ceramic, sand or other filter	0.7	0.2	0.4	1.1	0.3	0.6
Solar disinfection	0.0	0.1	0.0	0.0	0.0	0.0
Other	1.3	1.2	1.2	1.2	1.1	1.1
No treatment	83.3	92.9	89.7	81.5	92.7	89.0
Percentage using an appropriate treatment method ³	14.4	4.2	7.6	16.1	4.2	8.2
Number	2,469	4,815	7,284	14,104	28,701	42,805

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.

2.8 SANITATION FACILITIES

Poor sanitation coupled with unsafe water sources increases the risk of water-borne diseases and illnesses due to poor hygiene. Studies have shown that the absence of proper toilet facilities and improper disposal of faecal material increases exposure to the risk of diseases like dysentery, diarrhoea, and typhoid fever. Members of households with improved sanitation facilities are less likely to contract these communicable diseases.

Table 2.9 shows that overall, 11 percent of households have improved, not shared toilet facility. Urban households are much more likely than rural households to have this type of facility (21

and 6 percent, respectively). The most common toilet facility is the open pit (29 percent), which is much more likely to be used in rural areas (35 percent) than in urban areas (15 percent). Overall, one in four households have no toilet facilities, 33 percent in rural areas and 5 percent in urban areas.

Table 2.9 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Sierra Leone 2008

Type of toilet/latrine facility	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility	21.4	5.8	11.1	26.1	6.5	13.0
Flush/pour flush to piped sewer system	0.1	0.0	0.0	0.3	0.0	0.1
Flush/pour flush to septic tank	7.6	0.1	2.6	8.0	0.1	2.7
Flush/pour flush to pit latrine	1.3	0.0	0.5	1.3	0.0	0.5
Ventilated improved pit (VIP) latrine	5.1	2.2	3.2	6.5	2.3	3.7
Pit latrine with slab	7.3	3.5	4.8	10.0	4.1	6.0
Non-improved facility	78.6	94.2	88.9	73.9	93.5	87.0
Any facility shared with other households	52.5	21.8	32.2	47.9	21.8	30.4
Flush/pour flush not to sewer/septic tank/ pit latrine	0.8	0.0	0.3	0.6	0.0	0.2
Pit latrine without slab/open pit	15.3	35.2	28.5	16.1	37.5	30.5
Bucket	0.4	0.1	0.2	0.4	0.1	0.2
Hanging toilet/hanging latrine	2.8	3.0	2.9	2.7	3.0	2.9
No facility/bush/field/stream/river	4.9	33.2	23.6	4.6	30.1	21.7
Other	0.6	0.3	0.4	0.5	0.3	0.4
Missing	1.3	0.6	0.9	1.2	0.7	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,469	4,815	7,284	14,104	28,701	42,805

2.9 OTHER HOUSEHOLD CHARACTERISTICS

Table 2.10 provides information on other characteristics of household dwellings, such as access to electricity, construction materials used for the floor, number of rooms used for sleeping, and cooking practices.

Only 12 percent of households in Sierra Leone have access to electricity for lighting, with a very large disparity between urban and rural households (33 and 1 percent, respectively) (Table 2.10).

The type of flooring material in the dwelling can be viewed as an indicator of the quality of housing, a dimension of wealth, as well as an indicator of health risk. Floor materials like earth, sand, and animal dung pose a health problem because they can act as breeding grounds for pests and may be a source of dust. They are also more difficult to keep clean. Table 2.10 shows that over 61 percent of households have floors made of earth, sand, or animal dung. In general, rural households have poorer quality floors than urban households; 81 percent of rural households have earth, sand or dung floors, compared with only 22 percent of the urban households. On the other hand, urban households are more likely to have cement, tile, carpet, or wooden floors (75 percent), compared with rural households (17 percent).

The number of rooms used for sleeping gives an indication of the extent of crowding in households. Overcrowding increases the risks of contracting infectious diseases like acute respiratory infections and skin diseases, especially among children. In the survey, a room in which three or more persons sleep is considered to be over crowded. Overall, more than half (52 percent) of the households have three or more rooms for sleeping. Households in rural areas are more likely than urban households to have three or more rooms for sleeping (58 and 39 percent, respectively).

Cooking is commonly done outdoors (58 percent) or in a separate building (35 percent). This is observed in both urban and rural areas. Eight in ten households use wood for cooking. While almost all households (97 percent) in rural areas use wood for cooking, 56 percent of urban households use wood and 39 percent use charcoal. Use of solid fuels for cooking is almost universal in Sierra Leone (99 percent).

The 2008 SLDHS shows that 91 percent of the households that use solid fuel cook without a chimney or hood; 86 percent in urban areas and 94 percent in rural areas. An open fire or stove with hood is used in 6 percent of households. Urban households are more likely than rural households to use an open fire or stove with hood (11 and 3 percent, respectively).

Table 2.10 Household 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, Sierra Leone 2008						
Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	33.1	1.4	12.1	31.0	1.3	11.1
No	66.8	98.5	87.8	68.9	98.6	88.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth, sand	19.8	74.7	56.1	20.1	74.2	56.3
Dung	2.1	6.0	4.7	2.0	6.0	4.7
Stone	2.1	2.6	2.4	1.9	2.3	2.2
Wood/planks/palm/bamboo/ parquet or polished wood	0.7	0.2	0.3	0.7	0.2	0.3
Ceramic tiles	7.8	0.3	2.9	9.0	0.3	3.2
Cement	65.4	16.2	32.9	64.7	17.0	32.7
Carpet	1.5	0.0	0.5	1.2	0.0	0.4
Other	0.4	0.0	0.1	0.2	0.0	0.1
Missing	0.2	0.1	0.1	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One	31.3	14.7	20.3	19.9	9.0	12.6
Two	28.4	26.3	27.0	26.9	22.4	23.9
Three or more	39.0	58.0	51.6	51.8	67.4	62.3
Missing	1.3	1.0	1.1	1.4	1.2	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking						
In the house	6.4	4.5	5.2	5.9	4.1	4.7
In a separate building	35.2	35.5	35.4	40.1	36.5	37.7
Outdoors	54.8	58.9	57.5	52.6	58.7	56.7
Other	0.2	0.2	0.2	0.1	0.1	0.1
Missing	3.5	0.9	1.8	1.3	0.6	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel						
Electricity	0.1	0.0	0.0	0.0	0.0	0.0
Kerosene	0.4	0.1	0.2	0.2	0.1	0.1
Coal/lignite	1.5	0.0	0.5	1.3	0.0	0.4
Charcoal	38.9	1.2	14.0	35.2	1.2	12.4
Wood	56.0	97.2	83.2	62.4	97.6	86.0
Straw/shrubs/grass	0.1	0.9	0.6	0.1	0.8	0.6
Other fuel	0.1	0.0	0.1	0.0	0.0	0.0
No food cooked in household	2.6	0.3	1.1	0.7	0.1	0.3
Missing	0.2	0.2	0.2	0.2	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking ¹	96.5	99.4	98.4	98.9	99.7	99.4
Number of households	2,469	4,815	7,284	14,104	28,701	42,805
Type of fire/stove among households using solid fuel¹						
Closed stove with chimney	0.7	0.1	0.3	0.6	0.2	0.3
Open fire/stove with chimney	0.8	0.7	0.8	1.0	0.8	0.9
Open fire/stove with hood	11.1	3.0	5.7	9.7	3.1	5.3
Open fire/stove without chimney or hood	86.1	93.8	91.3	87.4	93.7	91.6
Other	0.2	0.9	0.7	0.1	0.9	0.6
Missing	1.2	1.4	1.3	1.1	1.4	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/ population using solid fuel	2,383	4,787	7,171	13,945	28,618	42,563

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

2.10 HOUSEHOLD DURABLE GOODS

Information was collected in the 2008 SLDHS on the availability of household durable goods such as household effects, means of transportation, and ownership of agricultural land and farm animals. Table 2.11 shows that 55 percent of households own a radio, 28 percent own a mobile telephone, 10 percent own a television set, and 6 percent own a refrigerator. Urban households are much more likely than rural households to own these goods. For instance, 78 percent of urban households own a radio, compared with 43 percent of rural households. Mobile telephones are available in 64 percent of households in urban areas and 10 percent of rural households. While 28 percent of urban households have a television set, this item is almost non-existent in rural areas (less than 1 percent).

Eleven percent of households own a bicycle. Bicycles are the most common means of transportation and are owned almost equally by rural and urban households (11 and 10 percent, respectively). Urban households are three times more likely than rural households to own a motorcycle/scooter (6 and 2 percent, respectively).

Sixty percent of households own agricultural land and 50 percent have farm animals. Table 2.11 shows that rural households are almost four times as likely to own agricultural land as urban households (80 and 22 percent, respectively). Similarly, 59 percent of rural households own farm animals, compared with 33 percent of urban households.

Possession	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Household effects						
Radio	78.2	43.2	55.1	79.6	45.6	56.8
Television	27.9	0.9	10.1	27.5	1.1	9.8
Mobile telephone	63.5	9.9	28.1	67.3	11.1	29.6
Non-mobile telephone	2.3	0.1	0.8	2.2	0.1	0.8
Refrigerator	16.8	0.3	5.9	17.1	0.3	5.8
Means of transport						
Bicycle	10.1	10.7	10.5	12.4	12.6	12.5
Animal drawn cart	0.4	0.1	0.2	0.3	0.1	0.2
Motorcycle/scooter	6.4	1.6	3.3	7.8	2.1	4.0
Car/truck	4.6	0.4	1.8	5.0	0.5	2.0
Boat with a motor	0.6	1.0	0.9	0.6	1.0	0.9
Ownership of agricultural land						
	22.2	79.5	60.1	27.0	81.6	63.6
Ownership of farm animals¹						
	32.5	58.6	49.8	39.4	61.8	54.4
Number	2,469	4,815	7,284	14,104	28,701	42,805

¹ Cattle, cows, bulls, horses, donkeys, mules, pigs, goats, sheep, rabbits, fowl, rodents for breed or birds for sale

2.11 WEALTH QUINTILES

The 2008 SLDHS provided an opportunity to obtain information about the distribution of Sierra Leone's population by wealth quintiles. Table 2.12 shows the percent distribution of the jure population by wealth quintiles, according to residence and region. It is not surprising that more than half of urban residents (56 percent) live in households that are in the highest wealth quintile, compared with only 2 percent of the rural population; 56 percent of residents in rural households are in the two lowest quintiles. Table 2.12 also shows that three in four residents of the Western Region (which includes Freetown, the capital) are in the highest quintile, while three in four residents of the other regions are in the three lowest quintiles.

Table 2.12 Wealth quintiles
Percent distribution of the jure population by wealth quintiles, according to residence and region, Sierra Leone 2008

Residence/region	Wealth quintile					Total	Number of population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	2.0	4.4	9.2	28.4	56.0	100.0	14,104
Rural	28.8	27.6	25.3	15.9	2.3	100.0	28,701
Region							
Eastern	24.1	21.9	23.8	20.0	10.2	100.0	7,878
Northern	19.4	25.2	26.3	21.9	7.2	100.0	18,730
Southern	34.9	24.0	17.1	16.3	7.7	100.0	8,531
Western	0.7	0.9	3.9	19.5	75.0	100.0	7,667
Total	20.0	20.0	20.0	20.0	20.0	100.0	42,805

2.12 BIRTH REGISTRATION

According to the 2007 Child Rights Act of Sierra Leone, parents are required to give their children a name and to register the child because the child has a right to know who his or her parents are and to have a nationality through registration (SLG, 2007). The birth registration policy in Sierra Leone is being reviewed to ensure that parents and caretakers of children take responsibility for ensuring this child right.

Table 2.13 shows the percentage of children under five years of age by registration status. Just over half (51 percent) of children were reported to have been registered; 31 percent have a birth certificate and 20 percent did not.

Coverage of birth registration varies little by the child's age and sex, but varies widely across regions, with the Western Region reporting the highest coverage (61 percent) and the Northern Region reporting the lowest coverage (42 percent). In the Eastern and Southern regions, the proportions are 56 and 59 percent, respectively. Births in urban areas are more likely than those in rural areas to be registered (59 and 48 percent, respectively). There is a positive relationship between wealth status and birth registration, with birth registration increasing with wealth quintile. Forty-three percent of births in the lowest wealth quintile are registered, compared with 62 percent of births in the highest quintile.

2.13 CHILD LABOUR

Sierra Leone is a signatory to the Convention on the Rights of the Child (SLG, 2007). The SLDHS Household Questionnaire asked a number of questions to obtain information about the prevalence of child labour in Sierra Leone. Child labour is defined as the involvement of children age 5-14 in labour activities. A child is considered to be involved in child labour activities if he or she meets the following criteria:

Table 2.13 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, by background characteristics, Sierra Leone 2008

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	31.2	21.8	52.9	2,691
2-4	30.0	19.4	49.4	4,017
Sex				
Male	30.9	21.1	52.0	3,334
Female	30.1	19.6	49.7	3,374
Residence				
Urban	40.4	18.8	59.1	1,803
Rural	26.9	20.9	47.8	4,906
Region				
Eastern	34.0	21.7	55.8	1,372
Northern	18.2	23.3	41.6	2,994
Southern	40.8	18.6	59.4	1,343
Western	48.6	11.9	60.5	1,000
Wealth quintile				
Lowest	25.5	17.5	43.0	1,526
Second	24.8	22.0	46.8	1,410
Middle	26.6	24.1	50.6	1,463
Fourth	34.4	22.0	56.4	1,285
Highest	46.5	15.0	61.5	1,025
Total	30.5	20.4	50.9	6,709

- Children age 5-11: at least one hour of economic work or 28 hours of domestic work during the week preceding the survey.
- Children age 12-14: at least 14 hours of economic work or 28 hours of domestic work during the week preceding the survey.

These definitions make it possible to differentiate child labour from child work, which in turn allows organizations working in child protection to identify and advocate the types of work that should be eliminated if the rights of the children are to be preserved. The discussion below provides a minimum estimate of the prevalence of child labour in Sierra Leone because some children may be involved in other labour activities (and thus be performing child labour) for a smaller number of hours than the criteria specified above.

Table 2.14 shows that 31 percent of children are involved in child labour. Of these children, less than 1 percent receive payment for their work, 11 percent work without pay, and 26 percent work for a family business. Surprisingly, children age 5-11 are much more likely than children age 12-14 to be involved in child labour (43 and 6 percent, respectively). Small variations in child labour activities

Background characteristic	Worked outside household in the past week ¹		Household chores for 28+ hours/week	Worked for family business in past week ¹	Total child labour ²	Number of children age 5-14
	Paid work	Unpaid work				
Age						
5-11 years	1.0	15.1	0.4	37.2	42.9	9,617
12-14 years	0.2	0.4	1.0	2.9	6.2	4,447
Sex						
Male	1.0	10.8	0.4	27.9	32.8	7,149
Female	0.4	10.1	0.8	24.8	29.8	6,914
Residence						
Urban	0.3	9.0	0.7	15.4	20.7	4,562
Rural	0.9	11.2	0.6	31.7	36.5	9,501
Region						
Eastern	0.6	12.6	1.8	26.1	34.2	2,353
Northern	0.9	7.8	0.3	28.7	31.1	6,829
Southern	0.9	17.2	0.6	38.3	45.6	2,586
Western	0.4	8.6	0.2	6.2	13.0	2,296
Orphan (mother and/or father deceased)						
Yes	0.7	8.4	0.6	22.7	26.6	1,833
No	0.7	10.8	0.6	26.9	32.0	12,230
School participation						
Yes	0.6	10.6	0.6	25.1	30.5	8,853
No	1.0	10.2	0.5	28.5	32.8	5,210
Wealth quintile						
Lowest	0.7	14.7	0.6	37.2	42.5	2,605
Second	1.3	10.9	0.3	33.0	37.1	2,970
Middle	0.4	10.0	0.8	28.5	33.2	2,945
Fourth	1.0	8.8	0.7	21.9	27.2	2,924
Highest	0.2	8.1	0.6	10.8	16.2	2,619
Total	0.7	10.5	0.6	26.4	31.3	14,063

Note: Equivalent to UNICEF MICS Indicator 71.
¹ Defined as any such work for children age 5-11 and 14 hours or more of such work for those age 12-14
² The numerator for the child labour estimate includes: (a) children age 5-11 who during the past week did at least one hour of economic activity or at least 28 hours of domestic chores and (b) children age 12-14 who during the past week did at least 14 hours of economic activity or at least 28 hours of domestic chores.

are observed by sex, urban-rural residence, orphanhood status, and whether the child is attending school. However, there are large variations between regions. Whereas only 13 percent of children in the Western Region are involved in child labour, the corresponding proportion in the Southern Region is 46 percent.

The level of child labour reported in the 2008 SLDHS (31 percent) is much lower than that reported in the 2005 Multiple Indicator Cluster Survey (MICS) (48 percent) (SSL and UNICEF/Sierra Leone, 2007).

CHARACTERISTICS OF RESPONDENTS

This chapter provides a profile of the respondents interviewed in the 2008 SLDHS: women age 15-49 and men age 15-59. Information is presented on a number of basic characteristics such as age, marital status, place of residence, ethnicity, religion, literacy, and access to mass media. The chapter also explores adults' employment status, occupation, and earnings. An analysis of these variables provides the socio-economic context within which demographic and reproductive health issues are examined in subsequent chapters.

3.1 BACKGROUND CHARACTERISTICS OF SURVEY RESPONDENTS

Information on the basic characteristics of women and men interviewed in the survey is essential for the interpretation of findings presented later in the report. Background characteristics of the 7,374 women and 3,280 men interviewed in the 2008 SLDHS are presented in Table 3.1. Weighted and unweighted numbers are shown. Unweighted numbers indicate the actual number of women and men interviewed, while weighted figures show the parameters of the population.

The distribution of respondents according to age shows that 32 percent of women and men are age 15-24. In the 25-29 age group, the proportion of women is notably larger than the proportion of men (22 and 15 percent, respectively). The proportion of women and men age 30-34 is 14 and 13 percent, respectively. In successive age groups thereafter, the proportion of men is larger than the proportion of women.

Nearly eight in ten respondents are Muslim. The respondents are almost equally divided among three ethnic groups, Temne, Mende, and other groups.

Less than one-fifth (19 percent) of women have never married compared with 37 percent of men. Seventy-five percent of women are currently married or living in an informal marital union, compared with 60 percent of men. This is possibly because men marry later in life than women. While women are as likely as men to be divorced or separated, women are much more likely than men to be widowed (3 percent and less than 1 percent, respectively).

Almost two-thirds of respondents (64 percent of women and 62 percent of men) live in rural areas. The distribution of respondents by region shows that four in ten live in the Northern Region (41 percent of women and 38 percent of men), while the Eastern Region has the lowest proportion (18 percent of women and 19 percent of men).

Two in three (66 percent) of women have never been to school, compared with 48 percent of men. Men are much more likely than women to complete secondary education (32 percent compared with 19 percent). Similarly, the proportion who go beyond secondary education is higher among men than women (5 and 3 percent, respectively).

Table 3.1 Background characteristics of respondents						
Percent distribution of women and men age 15-49 by selected background characteristics, Sierra Leone 2008						
Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	16.2	1,198	1,263	17.9	526	549
20-24	16.1	1,186	1,195	13.7	403	414
25-29	22.3	1,643	1,578	15.2	446	440
30-34	14.1	1,043	1,066	12.7	373	380
35-39	15.3	1,131	1,094	17.8	525	512
40-44	8.8	652	658	11.4	336	337
45-49	7.0	520	520	11.4	335	329
Marital status						
Never married	19.0	1,399	1,531	36.8	1,085	1,122
Married	65.0	4,794	4,677	54.6	1,607	1,568
Living together	9.9	732	696	5.4	160	171
Divorced/separated	3.5	256	269	2.7	81	87
Widowed	2.6	194	201	0.4	11	13
Residence						
Urban	36.0	2,655	3,160	38.1	1,123	1,295
Rural	64.0	4,719	4,214	61.9	1,822	1,666
Region						
Eastern	18.0	1,325	1,759	18.9	557	740
Northern	40.7	3,001	2,165	38.4	1,131	819
Southern	20.9	1,542	1,835	21.0	617	746
Western	20.4	1,506	1,615	21.7	639	656
Education						
No education	65.9	4,860	4,609	48.4	1,426	1,332
Primary	13.0	960	1,004	14.1	414	442
Secondary	18.6	1,372	1,558	32.4	953	1,017
More than secondary	2.5	182	203	5.1	151	170
Ethnicity						
Temne	34.8	2,564	2,096	36.0	1,060	868
Mende	31.6	2,331	2,721	30.6	901	1,070
Other	33.6	2,479	2,557	33.4	984	1,023
Religion						
Christian	22.0	1,625	1,933	21.8	642	739
Muslim	76.8	5,665	5,370	77.7	2,289	2,204
Other	1.1	84	71	0.5	14	18
Wealth quintile						
Lowest	18.7	1,382	1,323	18.9	558	543
Second	18.6	1,368	1,228	17.7	520	463
Middle	19.4	1,428	1,309	18.0	530	497
Fourth	20.0	1,472	1,560	20.3	597	636
Highest	23.4	1,723	1,954	25.1	739	822
Total 15-49	100.0	7,374	7,374	100.0	2,944	2,961
50-59	na	na	0	na	336	319
Total 15-59	na	na	0	na	3,280	3,280

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = Not applicable

3.2 EDUCATIONAL ATTAINMENT

Tables 3.2.1 and 3.2.2 present the distribution of female and male respondents by the highest level of education attended according to background characteristics. The results show that the proportion of respondents who have never been to school is higher for women than for men (66 and 48 percent, respectively). For both women and men, younger respondents are more likely than older respondents to have received education. For instance, 5 percent of women age 15-24 have completed primary school, compared with 3 percent women age 45-49. Men show similar proportions. The

median years of schooling completed by women age 15-19 is five, whereas for older women (age 20-49) it is zero years. The median years completed for men age 15-19 is six, and for older men (age 25-49) it is zero years.

Level of education varies by residence. Women and men in rural areas are less likely to be educated than their urban counterparts. For women, 38 percent of those in urban areas have never been to school, compared with 81 percent in rural areas. The gap in educational attainment between urban and rural residents widens with higher education levels. Whereas 6 percent of women in urban areas completed secondary school, the corresponding proportion in rural areas is less than 1 percent.

There is wide variation in education across regions: 77 percent of women in the Northern Region have not attended school, compared with 32 percent of women in the Western Region. In the Southern and Eastern regions, the proportions who have no education are 73 and 71 percent, respectively. Further, the Western Region has the highest proportion of women who go beyond secondary school, 9 percent, compared with about 1 percent in other regions.

As expected, the level of education increases with household wealth (wealth index). For example, 4 percent of women in the lowest quintile have attained some secondary education, compared with 40 percent of women in the highest quintile.

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, Sierra Leone 2008									
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			
Age									
15-24	46.1	15.6	4.5	29.0	3.0	1.8	100.0	2.6	2,384
15-19	34.1	20.0	6.3	37.6	1.7	0.2	100.0	4.6	1,198
20-24	58.2	11.1	2.7	20.4	4.2	3.4	100.0	0.0	1,186
25-29	75.3	8.4	1.9	9.5	1.9	3.1	100.0	0.0	1,643
30-34	70.5	7.4	3.9	11.8	2.7	3.7	100.0	0.0	1,043
35-39	76.6	6.1	3.3	10.3	1.8	1.8	100.0	0.0	1,131
40-44	76.3	4.5	2.7	10.9	2.2	3.4	100.0	0.0	652
45-49	81.4	5.0	3.1	7.9	1.2	1.5	100.0	0.0	520
Residence									
Urban	38.3	10.8	4.8	33.7	6.0	6.3	100.0	5.1	2,655
Rural	81.4	9.0	2.6	6.4	0.3	0.3	100.0	0.0	4,719
Region									
Eastern	70.8	11.8	3.8	12.2	0.5	0.9	100.0	0.0	1,325
Northern	77.1	8.5	2.2	10.6	0.9	0.6	100.0	0.0	3,001
Southern	72.6	9.6	4.2	11.4	0.9	1.3	100.0	0.0	1,542
Western	32.4	10.0	4.5	36.1	8.2	8.8	100.0	6.3	1,506
Wealth quintile									
Lowest	87.6	6.9	1.8	3.7	0.0	0.0	100.0	0.0	1,382
Second	82.3	9.6	2.7	5.1	0.1	0.1	100.0	0.0	1,368
Middle	79.1	10.4	2.4	7.7	0.2	0.2	100.0	0.0	1,428
Fourth	61.1	11.5	5.4	19.1	1.5	1.3	100.0	0.0	1,472
Highest	28.7	9.6	4.3	39.9	8.4	9.2	100.0	6.7	1,723
Total	65.9	9.6	3.4	16.3	2.3	2.5	100.0	0.0	7,374

¹ Completed 6 grades at the primary level
² Completed 3 grades at the senior secondary school level

Table 3.2.2 shows that the differentials in education for men are similar to those for women. Younger men, men in urban areas, those who live in the Western Region, and men in the highest wealth quintile are more likely than other men to have education.

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, Sierra Leone 2008

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			
Age									
15-24	25.0	14.5	5.1	44.9	8.6	1.9	100.0	6.2	929
15-19	20.8	18.7	7.8	47.8	4.8	0.0	100.0	5.9	526
20-24	30.4	8.9	1.6	41.3	13.5	4.4	100.0	7.1	403
25-29	56.5	10.4	3.2	14.0	8.6	7.3	100.0	0.0	446
30-34	61.1	8.7	3.5	14.5	3.9	8.3	100.0	0.0	373
35-39	60.6	7.7	4.8	19.6	3.3	4.0	100.0	0.0	525
40-44	51.4	5.7	1.9	17.4	12.2	11.4	100.0	0.0	336
45-49	66.4	7.7	2.5	15.5	4.6	3.3	100.0	0.0	335
Residence									
Urban	21.3	6.8	4.5	41.6	14.9	11.0	100.0	7.9	1,123
Rural	65.2	12.2	3.5	15.4	2.1	1.5	100.0	0.0	1,822
Region									
Eastern	57.1	14.7	5.2	18.2	2.5	2.3	100.0	0.0	557
Northern	58.2	10.3	2.9	24.1	2.4	2.1	100.0	0.0	1,131
Southern	55.3	10.6	4.3	22.7	3.9	3.3	100.0	0.0	617
Western	17.0	5.4	4.2	36.4	22.2	14.7	100.0	9.1	639
Wealth quintile									
Lowest	76.1	12.8	2.8	7.8	0.5	0.0	100.0	0.0	558
Second	68.9	11.6	4.4	13.5	1.4	0.4	100.0	0.0	520
Middle	57.1	15.0	3.0	20.3	3.2	1.4	100.0	0.0	530
Fourth	42.0	7.2	6.3	31.8	6.9	5.8	100.0	5.0	597
Highest	12.2	6.0	3.1	45.4	18.7	14.5	100.0	9.1	739
Total 15-49	48.4	10.2	3.9	25.4	7.0	5.1	100.0	1.2	2,944
50-59	64.8	8.0	3.2	14.6	5.1	4.4	100.0	0.0	336
Total 15-59	50.1	9.9	3.8	24.3	6.8	5.1	100.0	0.0	3,280

¹ Completed 6 grades at the primary level
² Completed 3 grades at the senior secondary school level

3.3 LITERACY

The 2008 SLDHS assessed the ability to read and write among women and men who had never been to school or who had attended only the primary level. This was done by asking respondents to read all or part of a short, simple sentence to establish literacy. The sample sentences were written in simple English¹. Tables 3.3.1 and 3.3.2 show the percent distribution of women and men, respectively, by level of schooling, level of literacy, and percentage literate, according to background characteristics.

The data show that 74 percent of women and 55 percent of men are illiterate. The gender gap in literacy varies by age, ranging from 10 percentage points in age 30-34 to 33 percentage points in age 20-24.

The urban-rural differential follows the expected pattern; rural respondents are more likely to be illiterate than their urban counterparts. The proportion of illiterate rural men is almost three times that of urban men (73 and 26 percent, respectively). For women, the proportion is 89 and 47 percent, respectively. The Eastern Region has the highest illiteracy rate among men (68 percent), while the Northern Region has the highest rate among women (84 percent). As expected, illiteracy decreases as wealth increases. For women, the poorest have the highest rate of illiteracy (94 percent), while the richest are the least likely to be illiterate (37 percent). Men show a similar pattern.

¹ These sentences include the following: 1) Parents love their children; 2) Farming is hard work; 3) The child is reading a book; 4) Children work hard at school; 5) The rains came late this year.

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, Sierra Leone 2008

Background characteristic	No schooling, or primary school only						Missing	Total	Percentage literate ¹	Number of women
	Secondary school or higher	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	39.6	3.7	11.4	43.9	0.1	0.1	1.2	100.0	54.7	1,198
20-24	28.0	0.1	4.0	67.2	0.2	0.1	0.3	100.0	32.2	1,186
25-29	14.5	0.0	2.5	82.6	0.2	0.0	0.2	100.0	17.0	1,643
30-34	18.2	0.2	3.1	78.3	0.0	0.1	0.2	100.0	21.5	1,043
35-39	14.0	0.2	2.7	82.2	0.5	0.0	0.3	100.0	16.9	1,131
40-44	16.4	0.1	2.0	80.8	0.3	0.0	0.3	100.0	18.6	652
45-49	10.5	0.6	3.6	84.1	0.7	0.0	0.5	100.0	14.7	520
Residence										
Urban	46.1	1.1	5.6	46.3	0.2	0.1	0.6	100.0	52.8	2,655
Rural	7.0	0.5	3.6	88.2	0.3	0.0	0.3	100.0	11.2	4,719
Region										
Eastern	13.6	0.9	3.6	81.3	0.0	0.1	0.5	100.0	18.1	1,325
Northern	12.1	0.4	3.9	82.4	0.6	0.0	0.5	100.0	16.5	3,001
Southern	13.6	1.1	5.6	79.4	0.0	0.1	0.2	100.0	20.3	1,542
Western	53.1	0.9	4.5	40.9	0.0	0.1	0.4	100.0	58.6	1,506
Wealth quintile										
Lowest	3.7	0.2	2.6	92.7	0.3	0.0	0.5	100.0	6.5	1,382
Second	5.4	0.8	4.3	88.8	0.6	0.0	0.2	100.0	10.4	1,368
Middle	8.1	0.5	4.6	86.2	0.3	0.1	0.2	100.0	13.2	1,428
Fourth	22.0	1.3	5.1	71.0	0.1	0.0	0.4	100.0	28.4	1,472
Highest	57.5	0.9	4.8	35.9	0.1	0.1	0.7	100.0	63.2	1,723
Total	21.1	0.8	4.3	73.1	0.2	0.0	0.4	100.0	26.2	7,374

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

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, Sierra Leone 2008

Background characteristic	No schooling, or primary school only						Missing	Total	Percentage literate ¹	Number of men
	Secondary school or higher	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	52.6	7.7	12.9	25.2	0.8	0.1	0.8	100.0	73.3	526
20-24	59.1	1.4	4.3	34.3	0.1	0.2	0.6	100.0	64.8	403
25-29	29.8	0.9	4.7	62.5	0.4	0.2	1.4	100.0	35.4	446
30-34	26.7	1.1	3.8	67.4	0.5	0.0	0.5	100.0	31.6	373
35-39	26.9	1.4	3.8	67.0	0.4	0.0	0.6	100.0	32.0	525
40-44	41.0	0.6	2.3	55.8	0.2	0.0	0.1	100.0	43.9	336
45-49	23.4	0.2	2.3	73.5	0.0	0.0	0.5	100.0	26.0	335
Residence										
Urban	67.5	2.0	4.3	25.1	0.1	0.1	0.9	100.0	73.7	1,123
Rural	19.0	2.4	5.9	71.6	0.5	0.1	0.5	100.0	27.3	1,822
Region										
Eastern	23.0	2.3	6.3	67.6	0.0	0.1	0.7	100.0	31.6	557
Northern	28.6	2.2	6.2	62.4	0.5	0.0	0.1	100.0	37.0	1,131
Southern	29.9	2.9	5.4	59.1	0.9	0.2	1.6	100.0	38.2	617
Western	73.3	1.4	2.7	21.9	0.0	0.0	0.7	100.0	77.5	639
Wealth quintile										
Lowest	8.3	2.1	5.8	82.7	0.4	0.2	0.5	100.0	16.2	558
Second	15.2	2.1	6.8	75.0	0.3	0.0	0.6	100.0	24.1	520
Middle	24.9	3.2	5.4	65.4	0.6	0.2	0.4	100.0	33.4	530
Fourth	44.5	2.0	5.8	46.4	0.6	0.0	0.6	100.0	52.4	597
Highest	78.6	1.8	3.3	15.0	0.2	0.0	1.0	100.0	83.7	739
Total 15-49	37.5	2.2	5.3	53.9	0.4	0.1	0.7	100.0	45.0	2,944
50-59	24.0	1.9	4.1	68.1	1.0	0.0	0.9	100.0	30.0	336
Total men 15-59	36.1	2.2	5.2	55.3	0.4	0.1	0.7	100.0	43.5	3,280

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

3.4 ACCESS TO MASS MEDIA

The 2008 SLDHS collected information on the exposure of respondents to common print and electronic media. Respondents were asked how often they read a newspaper, listen to the radio, and watch television. These data are important because they provide an indication of the extent to which Sierra Leoneans are regularly exposed to mass media, which are often used to disseminate messages on family planning and other health issues.

Tables 3.4.1 and 3.4.2 show that the most popular media is radio; 46 percent of women and 63 percent of men age 15-49 listen to the radio at least once a week. Eleven percent of women and 17 percent of men age 15-49 watch television weekly. Because of the low literacy rate, readership of newspapers among women is low (7 percent), while 18 percent of men read a newspaper at least once a week.

Urban residents are more likely to have access to mass media than rural residents: 8 percent of urban women are exposed to all three media at least once a week, compared with less than 1 percent of rural women; the difference for men is more pronounced, 22 percent of urban men, compared with 1 percent of rural men are exposed to all three media at least once a week. Similarly, the Western Region has the highest proportion of women and men who have access to all three media. There is a positive relationship between level of education and wealth status and exposure to mass media. For instance, 77 percent of women in the lowest wealth quintile have no weekly exposure to any mass media source, compared with 22 percent of women in the highest wealth quintile. The corresponding figures for men are 64 and 9 percent, respectively.

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, Sierra Leone 2008							
Background characteristic	At least once a week:				Exposed to all three media	Not exposed to any media	Number of women
	Reads the newspaper	Watches television	Listens to the radio				
Age							
15-19	12.3	15.1	48.0	5.1	48.7	1,198	
20-24	7.7	14.8	47.5	4.4	48.9	1,186	
25-29	3.7	8.1	45.5	1.6	53.1	1,643	
30-34	6.8	11.3	46.8	3.7	51.3	1,043	
35-39	4.4	7.5	43.7	1.7	55.1	1,131	
40-44	7.4	8.0	44.0	2.8	54.2	652	
45-49	3.5	6.8	39.6	1.8	58.6	520	
Residence							
Urban	15.7	24.7	64.8	7.9	30.7	2,655	
Rural	1.5	2.6	34.8	0.3	64.4	4,719	
Region							
Eastern	2.4	6.0	40.0	1.0	58.4	1,325	
Northern	4.2	5.9	42.2	1.9	56.2	3,001	
Southern	4.2	6.1	34.9	1.4	63.7	1,542	
Western	17.6	28.5	68.3	9.1	27.3	1,506	
Education							
No education	0.0	3.7	34.4	0.0	64.5	4,860	
Primary	2.8	11.6	53.2	0.7	44.5	960	
Secondary or higher	29.5	31.3	75.9	14.1	18.7	1,554	
Wealth quintile							
Lowest	0.5	0.7	23.1	0.0	76.6	1,382	
Second	1.0	2.0	32.5	0.3	67.2	1,368	
Middle	2.0	3.1	39.6	0.1	59.0	1,428	
Fourth	6.0	8.3	53.4	1.9	44.3	1,472	
Highest	20.3	33.4	72.3	11.2	22.1	1,723	
Total	6.6	10.6	45.6	3.1	52.3	7,374	

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, Sierra Leone 2008

Background characteristic	At least once a week:				Not exposed to any media	Number of men
	Reads the newspaper	Watches television	Listens to the radio	Exposed to all three media		
Age						
15-19	19.2	25.6	62.0	11.5	33.9	526
20-24	27.6	22.5	68.3	14.1	27.7	403
25-29	17.9	18.2	60.8	9.1	36.7	446
30-34	16.9	13.9	62.8	7.5	35.1	373
35-39	12.3	11.4	62.3	4.8	36.5	525
40-44	23.9	15.6	70.3	10.5	27.9	336
45-49	11.7	8.8	55.2	4.8	42.9	335
Residence						
Urban	37.5	38.5	80.8	21.6	14.9	1,123
Rural	6.5	3.7	52.0	1.0	46.5	1,822
Region						
Eastern	9.3	4.2	59.6	2.4	39.1	557
Northern	11.2	9.5	55.7	3.2	41.7	1,131
Southern	8.4	9.4	54.8	2.3	44.0	617
Western	48.2	48.7	86.8	31.0	8.2	639
Education						
No education	0.6	5.2	46.4	0.1	52.0	1,426
Primary	5.3	12.9	67.9	1.4	29.9	414
Secondary or higher	46.0	33.7	82.6	23.0	13.4	1,104
Wealth quintile						
Lowest	1.6	2.0	35.3	0.5	64.1	558
Second	4.8	3.6	48.2	0.5	51.0	520
Middle	9.0	6.0	59.9	0.8	37.1	530
Fourth	18.3	15.1	74.5	7.0	21.4	597
Highest	47.0	47.1	87.2	28.5	9.0	739
Total 15-49	18.3	17.0	63.0	8.9	34.4	2,944
50-59	12.6	7.8	61.2	2.8	37.7	336
Total 15-59	17.7	16.0	62.8	8.3	34.8	3,280

3.5 EMPLOYMENT

Like education, employment can also be a source of empowerment for women, especially if it puts them in control of income. It is difficult however to measure women's employment because most of the work that women do, especially on family farms, at home, in family businesses, or in the informal sector, is often not perceived by women themselves as employment. Cash payment is not attached to these types of work; therefore, they do not report it as such.

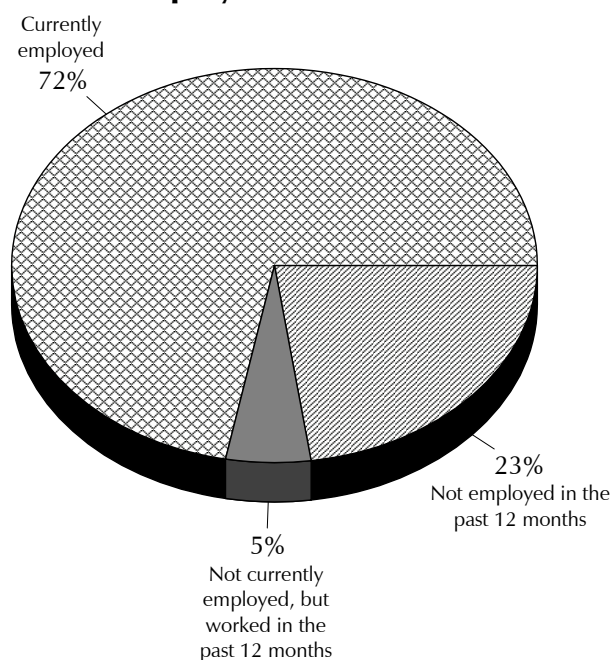
To avoid underestimating women's employment, the DHS questionnaire asked women several probing questions on their employment status to ensure complete coverage of employment in any sector, formal or informal. Women are defined as employed if they are currently working or worked at any time during the 12 months preceding the survey. Additional information was obtained on the type of work, such as whether they worked continuously throughout the year, who they worked for, and the form in which they received their earnings. Men were also asked questions on employment.

Table 3.5.1 and Figure 3.1 show the percent distribution of women age 15-49 by employment status, according to background characteristics. Overall, 77 percent of women were employed in the 12 months preceding the survey; 72 percent were currently employed while 5 percent, although not currently employed, had worked in the 12 months preceding the survey. Twenty-three percent of women did not work at all in the 12 months before the survey. For men age 15-49, 86 percent were employed in the 12 months preceding the survey (84 percent currently employed and 2 percent not currently employed but worked in the 12 months preceding the survey) (Table 3.5.2 and Figure 3.2).

Table 3.5.1 Employment status: Women						
Percent distribution of women age 15-49 by employment status, according to background characteristics, Sierra Leone 2008						
Background characteristic	Employed in the past 12 months		Not employed in the past 12 months	Missing	Total	Number of women
	Currently employed ¹	Not currently employed				
Age						
15-19	46.6	4.0	49.2	0.2	100.0	1,198
20-24	60.3	5.0	34.5	0.2	100.0	1,186
25-29	79.3	4.5	15.7	0.5	100.0	1,643
30-34	78.5	7.3	13.9	0.3	100.0	1,043
35-39	81.6	5.5	12.5	0.3	100.0	1,131
40-44	83.2	4.1	12.2	0.4	100.0	652
45-49	84.0	4.4	11.1	0.4	100.0	520
Marital status						
Never married	41.5	3.3	55.1	0.1	100.0	1,399
Married/ living together	78.9	5.6	15.1	0.4	100.0	5,525
Divorced/separated/widowed	79.7	3.5	16.9	0.0	100.0	450
Number of living children						
0	49.2	3.9	46.7	0.2	100.0	1,592
1-2	73.6	5.1	20.9	0.4	100.0	2,639
3-4	80.3	5.6	13.9	0.2	100.0	1,954
5+	84.5	5.4	9.7	0.4	100.0	1,189
Residence						
Urban	57.7	4.0	38.1	0.2	100.0	2,655
Rural	79.8	5.6	14.2	0.4	100.0	4,719
Region						
Eastern	66.4	9.0	24.4	0.3	100.0	1,325
Northern	78.8	4.6	16.2	0.5	100.0	3,001
Southern	75.6	3.9	20.3	0.3	100.0	1,542
Western	59.0	3.6	37.2	0.2	100.0	1,506
Education						
No education	79.6	5.5	14.5	0.3	100.0	4,860
Primary	68.3	5.0	26.2	0.5	100.0	960
Secondary or higher	49.8	3.5	46.5	0.2	100.0	1,554
Wealth quintile						
Lowest	80.3	6.7	12.4	0.7	100.0	1,382
Second	81.1	5.3	13.2	0.3	100.0	1,368
Middle	79.1	4.8	15.9	0.2	100.0	1,428
Fourth	69.2	5.2	25.3	0.3	100.0	1,472
Highest	54.0	3.4	42.3	0.2	100.0	1,723
Total	71.9	5.0	22.8	0.3	100.0	7,374

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.

Figure 3.1 Women's Employment Status in the Past 12 Months



Sierra Leone, 2008

Tables 3.5.1 and 3.5.2 show that for both women and men current employment increases with the respondent's age. Almost all men age 30 or older (97 percent or higher) were employed in the past year. Women who are married or divorced, separated, or widowed are more likely to be currently employed than unmarried women (79-80 percent, compared with 42 percent). Men show a similar pattern; married men are the most likely to be currently employed (97 percent), while never-married men are the least likely to be currently employed (63 percent).

The two tables also show that the proportion of women and men who are currently working increases with the number of living children they have. While less than half of women with no children are currently employed, at least 74 percent of women with children are employed. Similarly, at least 91 percent of men with one or more living children are currently employed, compared with 66 percent of men with no living children.

The percentage of men and women who are currently employed is substantially higher in rural areas (80 percent for women and 94 percent for men) than in urban areas (58 percent for women and 67 percent for men). There is also a substantial difference in levels of employment by region; the Northern Region has the highest level of employment for men (90 percent) and women (79 percent), while the Western Region has the lowest level of employment for the two sexes (68 percent of men and 59 percent of women). Employment has a negative relationship with education level and wealth status. For example, 97 percent of men and 80 percent of women with no education are employed, compared with 67 percent of men and 50 percent of women with secondary or higher education.

Background characteristic	Employed in the past 12 months		Not employed in the past 12 months	Missing	Total	Number of men
	Currently employed ¹	Not currently employed				
Age						
15-19	51.8	3.4	44.8	0.0	100.0	526
20-24	70.6	3.0	26.4	0.0	100.0	403
25-29	90.6	1.3	8.0	0.1	100.0	446
30-34	96.3	1.3	1.9	0.5	100.0	373
35-39	95.3	2.2	2.5	0.0	100.0	525
40-44	95.4	1.9	2.4	0.3	100.0	336
45-49	97.0	0.4	2.6	0.0	100.0	335
Marital status						
Never married	62.8	3.3	33.9	0.0	100.0	1,085
Married/ living together	96.5	1.2	2.2	0.1	100.0	1,767
Divorced/separated/widowed	86.8	4.0	9.2	0.0	100.0	92
Number of living children						
0	66.0	2.9	31.0	0.0	100.0	1,137
1-2	91.1	1.9	6.8	0.1	100.0	715
3-4	96.8	1.6	1.4	0.1	100.0	551
5+	98.1	0.8	0.9	0.2	100.0	541
Residence						
Urban	66.9	3.9	28.9	0.2	100.0	1,123
Rural	94.2	0.9	4.9	0.0	100.0	1,822
Region						
Eastern	89.5	1.5	9.0	0.0	100.0	557
Northern	90.0	1.3	8.6	0.1	100.0	1,131
Southern	83.9	1.3	14.8	0.0	100.0	617
Western	67.6	4.6	27.5	0.4	100.0	639
Education						
No education	97.2	0.5	2.2	0.1	100.0	1,426
Primary	83.4	2.1	14.4	0.0	100.0	414
Secondary or higher	66.6	4.0	29.3	0.2	100.0	1,104
Wealth quintile						
Lowest	94.5	0.6	4.7	0.1	100.0	558
Second	95.5	0.0	4.5	0.0	100.0	520
Middle	94.6	1.5	3.9	0.0	100.0	530
Fourth	83.7	3.0	13.0	0.2	100.0	597
Highest	59.7	4.1	36.0	0.1	100.0	739
Total 15-49	83.8	2.0	14.1	0.1	100.0	2,944
50-59	95.1	0.9	3.7	0.3	100.0	336
Total 15-59	84.9	1.9	13.0	0.1	100.0	3,280

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.

3.6 OCCUPATION

Tables 3.6.1 and 3.6.2 show the distribution of women and men who were employed in the 12 months preceding the survey by occupation and background characteristics. Data in these tables show that the agriculture sector employs 57 percent of women and 59 percent of men. The next most common occupation for women is sales and services (34 percent). Six percent of women are in professional, technical, and managerial work. Very few women are engaged in other occupations (2 percent or less).

Similar proportions of men work in professional, technical, managerial occupations (14 percent) and sales and services jobs (13 percent).

Women who work in agriculture are more likely to be older, married, live in rural areas, have no education, and live in the poorest households. Professional, technical and managerial sectors are more likely to attract younger women, women who have never married, women with no children, urban women, women with secondary or higher education, and women from the wealthiest households.

There are no substantial differences in occupation by region; 66-72 percent of women and men in the Northern, Eastern and Southern regions work in agriculture and 19-27 percent of women work in the sales and services sector. One in three men (33 percent) in the Western Region work in professional, technical and managerial jobs. Women with no education or with primary education work mainly in agricultural jobs (42-69 percent), while 51 percent of women with secondary or higher education work in the sales and services sector. For men, the relationship between education and occupation follows a similar pattern.

Tables 3.6.1 and 3.6.2 show that women (85 percent) and men (86 percent) in the lowest wealth quintile are most likely to work in the agriculture sector, while those in the highest wealth quintile (71 and 31 percent, respectively) are most likely to work in the sales and service sector.

Background characteristic	Professional/technical/managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of women
Age										
15-19	19.6	0.0	24.2	2.5	0.1	1.0	48.9	3.7	100.0	606
20-24	7.0	0.2	36.8	2.3	0.5	0.4	50.8	2.0	100.0	775
25-29	3.2	0.3	34.4	1.9	0.1	0.2	59.0	1.0	100.0	1,377
30-34	3.9	0.4	36.8	1.7	0.3	0.0	56.0	0.8	100.0	895
35-39	4.0	0.3	33.5	0.8	0.0	0.0	60.1	1.2	100.0	986
40-44	5.3	0.6	34.0	0.4	0.2	0.0	58.8	0.7	100.0	570
45-49	3.5	0.3	31.9	0.4	0.0	0.0	63.7	0.2	100.0	460
Marital status										
Never married	29.9	0.6	36.7	3.5	0.3	0.7	24.2	4.2	100.0	627
Married/ living together	2.9	0.2	32.4	1.3	0.2	0.2	61.9	0.9	100.0	4,668
Divorced/separated/widowed	3.7	0.4	44.0	1.3	0.3	0.0	48.7	1.6	100.0	374
Number of living children										
0	20.2	0.5	31.2	2.4	0.4	0.7	41.6	3.0	100.0	845
1-2	4.7	0.5	35.6	2.4	0.1	0.3	55.0	1.4	100.0	2,077
3-4	2.7	0.1	34.2	0.7	0.2	0.0	61.2	0.8	100.0	1,678
5+	2.3	0.1	30.7	0.2	0.1	0.0	65.7	0.8	100.0	1,069
Residence										
Urban	13.3	1.0	66.2	3.4	0.1	0.5	13.2	2.4	100.0	1,637
Rural	3.0	0.0	20.4	0.8	0.2	0.1	74.6	0.9	100.0	4,032
Region										
Eastern	5.7	0.1	18.9	1.6	0.5	0.1	72.3	0.7	100.0	998
Northern	3.8	0.0	27.2	0.8	0.1	0.3	67.0	0.8	100.0	2,502
Southern	3.1	0.1	27.2	1.0	0.2	0.0	65.6	2.8	100.0	1,225
Western	15.6	1.4	74.6	3.9	0.1	0.2	2.5	1.6	100.0	944
Education										
No education	1.3	0.0	28.0	0.9	0.2	0.2	68.6	0.9	100.0	4,137
Primary	6.1	0.0	46.6	2.7	0.0	0.5	42.4	1.7	100.0	703
Secondary or higher	29.2	2.0	50.8	3.5	0.4	0.2	10.7	3.2	100.0	829
Wealth quintile										
Lowest	1.5	0.0	11.5	0.3	0.3	0.0	85.3	1.2	100.0	1,201
Second	3.1	0.1	16.9	0.4	0.2	0.0	78.2	1.1	100.0	1,183
Middle	3.1	0.0	26.2	1.2	0.1	0.4	67.6	1.3	100.0	1,199
Fourth	6.1	0.1	50.2	2.0	0.2	0.4	39.4	1.5	100.0	1,095
Highest	18.1	1.5	71.1	4.2	0.1	0.2	3.3	1.5	100.0	990
Total	6.0	0.3	33.6	1.5	0.2	0.2	56.9	1.3	100.0	5,669

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, Sierra Leone 2008

Background characteristic	Professional/technical/managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of men
Age										
15-19	33.1	0.3	3.0	3.6	1.4	0.0	55.0	3.4	100.0	290
20-24	22.7	2.7	10.4	9.2	3.6	0.5	48.8	2.2	100.0	296
25-29	11.1	3.0	12.7	9.3	3.8	0.0	58.8	1.4	100.0	410
30-34	9.4	1.7	15.5	8.4	4.4	0.4	59.8	0.3	100.0	364
35-39	7.4	1.5	13.9	6.7	4.4	0.2	65.2	0.7	100.0	512
40-44	15.7	1.2	17.7	5.8	4.9	0.0	54.0	0.8	100.0	327
45-49	9.0	0.7	13.4	8.4	5.0	0.0	62.9	0.6	100.0	326
Marital status										
Never married	26.6	1.8	8.2	7.1	3.2	0.2	50.2	2.7	100.0	717
Married/ living together	9.3	1.4	14.6	7.3	4.2	0.1	62.4	0.7	100.0	1,726
Divorced/separated/widowed	13.1	3.7	13.2	11.9	7.4	0.0	50.7	0.0	100.0	84
Number of living children										
0	23.1	2.0	9.1	5.8	3.4	0.2	54.2	2.2	100.0	784
1-2	12.4	1.9	13.2	11.1	6.2	0.2	53.7	1.3	100.0	665
3-4	9.9	1.7	15.7	6.8	3.4	0.2	61.5	0.8	100.0	543
5+	8.3	0.6	14.3	5.9	2.8	0.0	68.0	0.1	100.0	535
Residence										
Urban	29.2	4.3	26.6	16.9	4.4	0.5	15.2	2.8	100.0	796
Rural	7.5	0.4	6.3	3.0	3.8	0.0	78.5	0.5	100.0	1,731
Region										
Eastern	9.8	0.6	6.1	3.0	10.7	0.0	69.6	0.2	100.0	506
Northern	12.2	0.6	9.4	3.9	1.3	0.1	72.1	0.4	100.0	1,033
Southern	6.3	1.3	13.7	4.3	5.8	0.0	66.5	2.2	100.0	526
Western	33.3	5.4	26.1	23.6	0.6	0.7	7.1	3.1	100.0	462
Education										
No education	2.7	0.7	9.1	5.7	4.3	0.0	77.1	0.4	100.0	1,393
Primary	11.3	2.0	12.1	10.3	5.2	0.0	57.9	1.2	100.0	354
Secondary or higher	36.5	3.1	19.3	9.2	3.0	0.5	25.6	2.8	100.0	779
Wealth quintile										
Lowest	4.4	0.1	3.8	1.4	4.3	0.0	85.5	0.6	100.0	530
Second	4.6	0.3	7.8	1.3	2.8	0.0	83.2	0.0	100.0	497
Middle	10.1	0.4	7.9	5.3	4.7	0.0	71.1	0.6	100.0	509
Fourth	18.9	1.4	14.7	10.8	6.9	0.5	45.2	1.7	100.0	518
Highest	35.4	6.2	30.9	19.3	1.0	0.3	3.5	3.4	100.0	472
Total 15-49	14.3	1.6	12.7	7.4	4.0	0.2	58.5	1.2	100.0	2,526
50-59	9.9	1.2	15.1	4.2	4.8	0.0	64.5	0.3	100.0	322
Total 15-59	13.8	1.6	13.0	7.1	4.1	0.1	59.2	1.1	100.0	2,849

3.7 EARNINGS, EMPLOYERS, AND CONTINUITY OF EMPLOYMENT

Table 3.7 presents information on women's employment, including type of earnings, type of employer, and continuity of employment. Because the employment variables in the table are strongly influenced by the sector in which a woman is employed, the table takes into account whether the woman is involved in agricultural or non-agricultural work.

The data show that 83 percent of women employed in agricultural work are not paid, 74 percent are self-employed, and 24 percent are employed by a family member; 44 percent work all year and 53 percent work seasonally.

Women who work in non-agricultural jobs are slightly better off than women employed in agricultural work; 54 percent of these women are not paid, but 37 percent are paid in cash only. Among women who work in agriculture, 84 percent are not paid and 5 percent are paid in cash only. Eighty-one percent of women are self-employed, and most women work all year (71 percent).

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 non-agricultural), Sierra Leone 2008			
Employment characteristic	Agricultural work	Non-agricultural work	Total
Type of earnings			
Cash only	4.5	36.8	18.2
Cash and in-kind	5.6	5.0	5.3
In-kind only	5.9	2.9	4.6
Not paid	83.4	54.2	71.0
Missing	0.6	1.1	0.9
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	24.3	9.8	18.1
Employed by non-family member	1.4	8.3	4.4
Self-employed	74.1	81.3	77.1
Missing	0.2	0.6	0.5
Total	100.0	100.0	100.0
Continuity of employment			
All year	44.2	70.7	55.1
Seasonal	53.1	17.6	37.8
Occasional	2.0	11.0	6.3
Missing	0.7	0.7	0.8
Total	100.0	100.0	100.0
Number of women employed during the past 12 months	3,225	2,368	5,669

Note: The total column includes women with information missing on type of employment who are not shown separately.

3.8 HEALTH INSURANCE

Health insurance is largely unknown in Sierra Leone; almost no one is covered by a health insurance scheme (data not shown).

3.9 KNOWLEDGE AND ATTITUDES CONCERNING TUBERCULOSIS

The 2008 SLDHS collected information on the respondent's knowledge and attitudes concerning tuberculosis (TB). Tables 3.8.1 and 3.8.2 show that knowledge of TB in Sierra Leone is widespread (86 percent of women and 90 percent of men). Younger respondents and those who live in rural areas are less likely than other respondents to have heard of TB. Almost all women and men in the Western Region have heard of TB (99 and 98 percent, respectively). Knowledge of TB increases with education and wealth status. Women and men with less than primary education and in the lowest wealth quintile are the least likely to know about TB.

Among women and men who have heard of TB, more than half know that TB is spread through the air by coughing (57 percent of women and 68 percent of men). Knowledge that TB can be cured is also widespread (77 percent of women and 85 percent of men). In general, urban residents, more educated respondents, and those in the wealthiest households are more aware that TB is transmitted through the air by coughing and that it can be completely cured.

In Sierra Leone, there is little stigma attached to TB. Only about one-quarter of women (24 percent) and 17 percent of men said that they would want to keep secret the fact that a family member had TB. Stigma generally increases with level of education and wealth quintile, and is higher among urban than rural residents.

Table 3.8.1 Knowledge and attitudes 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, Sierra Leone 2008						
Background characteristic	Among all women:		Among respondents who have heard of TB:			
	Percentage who have heard of TB	Number of women	Percentage who reported 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	81.3	1,198	55.8	72.8	28.9	974
20-24	88.5	1,186	56.9	75.3	28.5	1,050
25-29	85.1	1,643	55.9	77.4	21.1	1,398
30-34	85.7	1,043	58.1	79.1	22.9	894
35-39	86.0	1,131	59.9	79.6	22.7	973
40-44	88.7	652	59.8	80.0	20.2	578
45-49	88.9	520	56.7	81.0	18.3	462
Residence						
Urban	94.8	2,655	62.7	82.9	33.8	2,518
Rural	80.8	4,719	53.9	73.8	17.1	3,812
Region						
Eastern	85.2	1,325	56.4	67.9	18.3	1,129
Northern	81.5	3,001	60.4	80.1	15.6	2,445
Southern	82.2	1,542	46.2	72.0	19.0	1,268
Western	98.7	1,506	62.9	84.9	45.3	1,487
Education						
No education	82.0	4,860	52.6	74.2	18.7	3,985
Primary	89.5	960	60.3	74.2	26.0	859
Secondary or higher	95.6	1,554	68.8	88.1	36.0	1,486
Wealth quintile						
Lowest	78.7	1,382	53.9	71.1	15.9	1,087
Second	81.2	1,368	53.2	74.3	18.3	1,112
Middle	80.9	1,428	54.0	73.0	17.0	1,155
Fourth	88.7	1,472	58.8	78.6	22.9	1,306
Highest	96.9	1,723	63.7	85.7	37.8	1,670
Total	85.8	7,374	57.4	77.4	23.7	6,330

Table 3.8.2 Knowledge and attitudes 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, Sierra Leone 2008

Background characteristic	Among all men:		Among respondents who have heard of TB:			
	Percentage who have heard of TB	Number of men	Percentage who reported 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	80.7	526	71.1	80.5	22.2	424
20-24	90.0	403	73.1	86.1	24.7	362
25-29	90.2	446	62.2	82.9	17.5	402
30-34	91.9	373	65.3	81.7	9.8	343
35-39	92.9	525	63.2	84.3	14.2	488
40-44	93.0	336	72.0	89.3	17.3	313
45-49	93.1	335	71.6	88.8	11.9	312
Residence						
Urban	96.1	1,123	78.4	88.9	21.7	1,079
Rural	86.0	1,822	60.8	81.5	13.7	1,566
Region						
Eastern	89.0	557	48.9	75.8	8.5	495
Northern	87.5	1,131	72.5	87.4	11.8	990
Southern	86.0	617	66.9	83.3	18.6	531
Western	98.4	639	76.8	87.8	30.4	629
Education						
No education	88.1	1,426	57.3	79.5	12.7	1,256
Primary	80.1	414	60.7	81.0	15.2	332
Secondary or higher	95.7	1,104	82.9	91.5	22.6	1,057
Wealth quintile						
Lowest	83.5	558	52.2	77.0	14.8	466
Second	85.3	520	61.3	80.8	10.6	444
Middle	87.8	530	65.1	84.0	11.7	465
Fourth	92.3	597	72.6	87.4	16.7	551
Highest	97.2	739	80.6	89.7	26.0	719
Total 15-49	89.8	2,944	68.0	84.5	17.0	2,645
50-59	92.1	336	67.1	88.8	12.5	309
Total 15-59	90.1	3,280	67.9	84.9	16.5	2,954

3.10 SMOKING

To measure the extent of smoking among Sierra Leonean adults, women and men who were interviewed in the 2008 SLDHS were asked if they currently smoked cigarettes or used other forms of tobacco. Twelve percent of women reported that they use tobacco; 6 percent smoke cigarettes and 6 percent use other types of tobacco (Table 3.9.1).

Men are more likely to use tobacco than women. Overall, 37 percent of men age 15-49 smoke cigarettes (Table 3.9.2). Among men, the proportion of smokers is highest in rural areas, among those with no education, and among those in the poorest households.

Four in ten men who smoke cigarettes had at least 10 cigarettes in the 24 hours before the survey. While there are large differences in the proportion cigarette smokers by wealth quintile (50 percent for men in the lowest quintile and 17 percent for men in the highest quintile), among men who smoke 10 or more cigarettes there is little variation by wealth status (34-42 percent).

Table 3.9.1 Use of tobacco: Women					
Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products, by background characteristics and maternity status, Sierra Leone 2008					
Background characteristic	Uses tobacco			Does not use tobacco	Number of women
	Cigarettes	Pipe	Other tobacco		
Age					
15-19	0.8	0.0	0.8	98.2	1,198
20-24	3.4	0.0	2.0	95.2	1,186
25-29	6.5	0.2	4.1	90.3	1,643
30-34	9.2	0.4	7.0	85.0	1,043
35-39	7.8	0.2	8.2	85.0	1,131
40-44	8.5	0.9	10.7	82.2	652
45-49	9.0	0.5	13.6	78.5	520
Maternity status					
Pregnant	4.5	0.0	5.2	91.3	598
Breastfeeding (not pregnant)	6.0	0.2	4.8	90.2	2,091
Neither	6.2	0.3	5.9	88.6	4,685
Residence					
Urban	5.0	0.3	1.7	93.4	2,655
Rural	6.6	0.2	7.7	87.0	4,719
Region					
Eastern	8.5	0.2	6.9	85.4	1,325
Northern	5.0	0.3	3.4	92.6	3,001
Southern	6.2	0.0	13.2	82.3	1,542
Western	5.7	0.5	0.8	93.2	1,506
Education					
No education	6.9	0.3	7.5	86.7	4,860
Primary	6.1	0.0	3.4	90.6	960
Secondary or higher	3.1	0.1	0.7	96.4	1,554
Wealth quintile					
Lowest	6.6	0.0	9.9	84.7	1,382
Second	6.5	0.3	8.1	86.5	1,368
Middle	6.2	0.1	6.0	89.0	1,428
Fourth	6.8	0.5	4.0	90.1	1,472
Highest	4.2	0.3	0.8	94.7	1,723
Total	6.0	0.2	5.5	89.3	7,374

Table 3.9.2 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 past 24 hours, according to background characteristics, Sierra Leone 2008

Background characteristic	Uses tobacco				Number of men	Number of cigarettes in the past 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	9.0	0.0	0.9	90.9	526	(2.4)	(13.2)	(41.8)	(15.3)	(25.4)	(2.0)	100.0	47
20-24	25.5	0.0	2.4	74.4	403	0.0	8.6	45.3	14.1	25.7	6.3	100.0	103
25-29	38.6	0.5	5.0	60.2	446	0.9	9.4	38.4	17.7	30.6	3.0	100.0	172
30-34	43.9	0.6	6.2	54.9	373	1.1	6.5	33.2	14.7	43.2	1.3	100.0	164
35-39	47.5	0.1	4.2	51.9	525	0.5	7.1	32.3	13.9	43.1	3.1	100.0	249
40-44	49.6	0.8	3.8	50.0	336	0.4	2.8	27.3	19.8	48.7	1.1	100.0	167
45-49	52.5	1.4	6.1	46.4	335	0.0	6.5	37.7	14.9	39.6	1.3	100.0	176
Residence													
Urban	22.5	0.1	2.7	76.6	1,123	0.8	8.1	31.4	14.2	43.4	2.1	100.0	253
Rural	45.3	0.6	4.6	54.2	1,822	0.6	6.7	36.3	16.3	37.6	2.5	100.0	825
Region													
Eastern	42.4	0.2	5.2	56.7	557	0.0	6.9	54.6	19.6	18.1	0.8	100.0	236
Northern	41.3	0.7	1.9	58.4	1,131	0.4	6.5	26.8	14.1	48.6	3.7	100.0	467
Southern	37.6	0.6	6.9	61.3	617	0.4	4.6	31.9	17.5	44.2	1.4	100.0	232
Western	22.3	0.0	3.3	76.9	639	2.7	13.0	35.9	12.3	33.4	2.7	100.0	143
Education													
No education	50.0	0.8	5.0	49.5	1,426	0.4	5.0	33.7	16.1	42.1	2.7	100.0	713
Primary	31.8	0.0	3.2	67.6	414	0.0	12.3	35.7	18.4	31.5	2.1	100.0	132
Secondary or higher	21.1	0.1	2.8	78.0	1,104	1.6	10.1	39.5	13.4	33.6	1.8	100.0	233
Wealth quintile													
Lowest	50.2	0.2	5.7	49.0	558	0.4	5.5	38.0	18.5	34.2	3.4	100.0	280
Second	43.0	1.3	5.6	56.2	520	0.4	7.0	35.6	13.6	40.9	2.4	100.0	224
Middle	44.7	0.2	3.7	54.6	530	0.0	7.5	34.1	14.9	41.6	1.9	100.0	237
Fourth	35.1	0.4	2.0	64.8	597	0.3	5.6	34.9	15.9	40.4	2.8	100.0	210
Highest	17.2	0.1	3.0	81.9	739	3.0	11.7	30.6	15.0	38.8	0.8	100.0	127
Total 15-49	36.6	0.4	3.9	62.7	2,944	0.6	7.0	35.2	15.8	39.0	2.5	100.0	1,078
50-59	41.6	1.4	5.0	55.8	336	1.0	4.3	19.8	25.0	46.9	3.0	100.0	140
Total 15-59	37.1	0.5	4.0	62.0	3,280	0.6	6.7	33.4	16.8	39.9	2.5	100.0	1,217

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

Fertility is one of the principal components of population dynamics that determine the size and structure of the population of a country. Fertility, unlike mortality and migration, has remained the most crucial factor associated with population change in Sierra Leone because of its persistent high levels. For over a generation, the total fertility rate (TFR) in Sierra Leone has been six children or more per woman. These high TFR levels are strongly tied to social, economic, and cultural factors that are yet to be fully understood. The UN fertility estimates also indicate that there has been little or no change in fertility levels in Sierra Leone since the early 1950s (United Nations, 2009). The increasing number of births per woman has come to be seen as the driving force behind the country's population increases.

The government of Sierra Leone recognized the potential drawbacks of high levels of fertility on the economy in its First National Development Plan (Sierra Leone Government, 1974). These efforts culminated in the formulation of a National Population Policy in 1988, government's earliest population policy framework to address development issues, including fertility.

The 2008 SLDHS was undertaken at a time when this long-standing trend of high fertility in Sierra Leone was well established. However, the survey provides information on fertility differentials that is essential for understanding the dynamics of fertility in Sierra Leone and the potential impact on population change.

This chapter looks at a number of fertility indicators including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women initiate childbearing. Information on current and cumulative fertility is essential in monitoring population growth. The data on birth intervals are important because short intervals are strongly associated with childhood mortality. The age at which childbearing begins can also have a major impact on the health and well-being of both the mother and the child.

Data on fertility were collected in several ways. Each woman interviewed was asked about all of the births she had had in her lifetime. To ensure completeness of responses, the duration of the pregnancy, the month and year the pregnancy ended, and the result of the pregnancy were recorded for each pregnancy. In addition, questions were asked separately about sons and daughters who live with the mother, those who live elsewhere, and those who have died. Subsequently, a list of all births was recorded along with the name of the child, age if still living, and age at death if dead. Finally, information was collected on whether women were pregnant at the time of the survey.

4.1 CURRENT FERTILITY

The level of current fertility is one of the most important demographic indicators for determining the status of women and for health and family planning policy-makers because of its direct relevance to population policy and programmes. Current fertility is measured for the three-year period prior to the survey (mid-2005 to mid-2008). A three-year period was chosen because it reflects the most current information, while having a sufficient number of cases to allow statistical calculation of rates. The results by urban-rural residence are presented in Table 4.1.

Several measures of fertility are shown in this chapter. Age-specific fertility rates (ASFRs) are defined as the number of live births per thousand women in a specific age group. These rates were calculated by dividing the number of live births among women in a specific age group by the number of woman-years lived in that age group. The total fertility rate (TFR) is the sum of the ASFRs and is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The general fertility rate (GFR) is the number of live births occurring during a specified period per 1,000 women age 15-49. The crude birth rate (CBR) is the number of births per 1,000 population during a specified period.

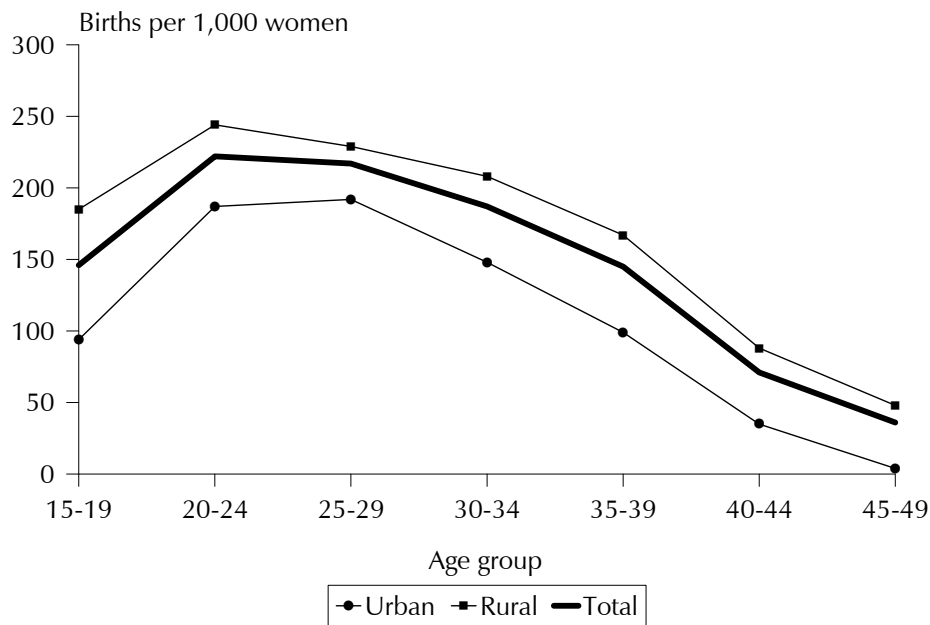
The data in Table 4.1 show that the total fertility rate in Sierra Leone for the three years preceding the 2008 SLDHS survey was 5.1 births per woman. The results indicate that women in rural areas have an average of two more births (5.8) than women in urban areas (3.8). Overall, the fertility of rural women is almost 14 percent higher than the national average.

The age pattern of fertility as reflected in the ASFRs indicates that childbearing begins early. Figure 4.1 shows that for the entire sample of women, fertility is relatively high among adolescents age 15-19 (146 births per 1,000 women). Fertility peaks at age 20-24 (222 births per 1,000 women) followed by a steady decline, which is expected.

Figure 4.1 also shows that, when looking at residence, fertility reaches its peak in urban areas at age 25-29, while the peak in rural areas is at age 20-24. This indicates a slight delay in childbearing in urban areas. The data also show that for each age group, fertility is higher in rural areas than in urban areas. The urban-rural difference in fertility is most pronounced for women age 15-19 (94 births per 1,000 women in urban areas, compared with 185 births per 1,000 women in rural areas).

Age group	Residence		Total
	Urban	Rural	
15-19	94	185	146
20-24	187	244	222
25-29	192	229	217
30-34	148	208	187
35-39	99	167	145
40-44	35	88	71
45-49	4	48	36
TFR	3.8	5.8	5.1
GFR	138	202	179
CBR	27.3	33.4	31.5

Figure 4.1 Age-specific Fertility Rates by Urban-Rural Residence



Sierra Leone, 2008

Table 4.1 provides estimates of the General Fertility Rate (GFR) and the Crude Birth Rate (CBR). The general fertility rate (GFR), which refers to the number of live births occurring during a specified period per 1,000 women age 15-49, is estimated at 179 births per woman for the entire sample. There is considerable difference between rural and urban areas in the GFR. Rural areas have a GFR that is 46 percent higher than the GFR in urban areas (202 births per 1,000 women in rural areas, compared with 138 births per 1,000 women in urban areas).

Finally, the crude birth rate (CBR) is the number of births per 1,000 population during a specified period. The overall CBR is 31.5 births. As with the other fertility rates, there is an urban-rural differential, with the rural rate being higher than the urban rate (33.4 births per 1,000 population, compared with 27.3 births per 1,000 population, respectively).

4.2 FERTILITY DIFFERENTIALS

In this section, fertility is examined in terms of residence, region, education, and household wealth status (wealth quintile). Table 4.2 and Figure 4.2 present these differentials for three measures of fertility: total fertility rate, percentage of women who are currently pregnant, and mean number of children ever born to women age 40-49.

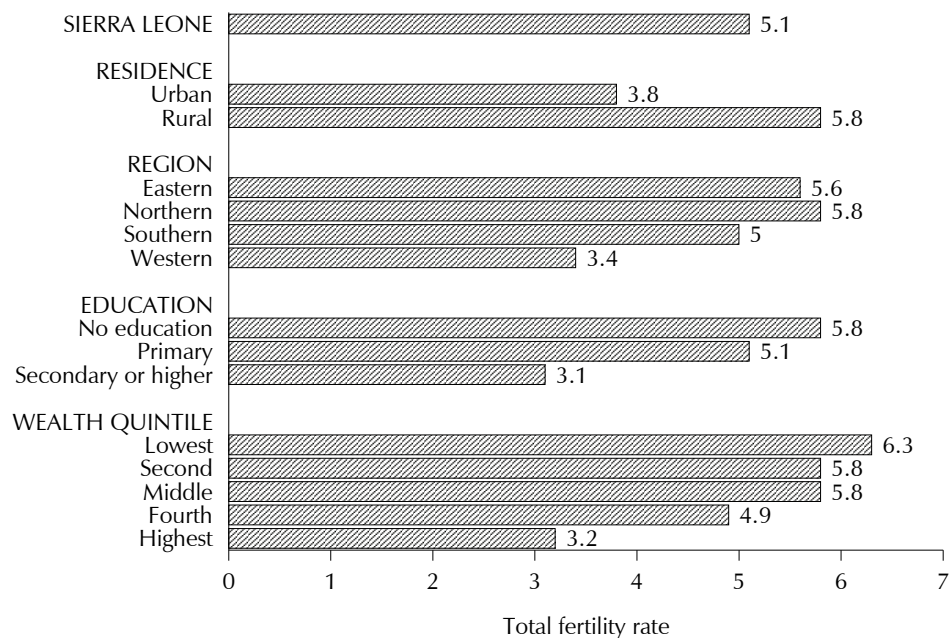
Table 4.2 Fertility by background characteristics

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, Sierra Leone 2008

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	3.8	6.5	4.9
Rural	5.8	9.0	5.8
Region			
Eastern	5.6	7.8	5.2
Northern	5.8	8.6	6.2
Southern	5.0	10.4	5.1
Western	3.4	5.1	4.7
Education			
No education	5.8	8.9	5.7
Primary	5.1	8.1	5.5
Secondary or higher	3.1	5.6	4.4
Wealth quintile			
Lowest	6.3	9.1	5.6
Second	5.8	10.2	5.9
Middle	5.8	9.4	5.7
Fourth	4.9	7.4	5.7
Highest	3.2	5.1	4.7
Total	5.1	8.1	5.5

Note: Total fertility rates are for the period 1-36 months preceding the survey.

Figure 4.2 Total Fertility Rate by Background Characteristics



Sierra Leone, 2008

The Northern Region reported the highest TFR (5.8 births per woman), followed by the Eastern Region, which has a slightly lower TFR (5.6 births per woman), and then the Southern Region (5.0 births per woman). The Western Region has the lowest TFR (3.4 births per woman). In effect, women in the Northern Region have an average of 2.4 more children than their counterparts in the

Western Region. The disparity in childbearing between women in the Western Region and women in other regions may be the result of a number of social, cultural, and economic factors such as greater access to family planning services in the Western Region (which includes Freetown, the capital), compared with other regions.

As expected, there is an inverse relationship between fertility and education, with uneducated women having almost twice as many births (5.8) as their counterparts with secondary or higher education (3.1). In other words, the fertility of women with no education is 87 percent higher than that of women with secondary or higher education.

Fertility levels are also related to household wealth status. The data suggest that women in the lowest wealth quintile have much higher fertility than those in the highest wealth quintile (6.3 births per woman, compared with 3.2 births per woman).

Regarding the level of current pregnancy among women age 15-49, Table 4.2 shows that 8 percent of women reported being pregnant at the time of the survey. The variation in pregnancy levels by background characteristics is similar to that observed for total fertility rates.

Table 4.2 also provides a rough assessment of trends in the various sub-groups by comparing current fertility with a measure of completed fertility: the mean number of children ever born to women age 40-49. The mean number of children ever born to older women who are nearing the end of their reproductive period is an indicator of average completed fertility for women who began childbearing during the three decades preceding the survey. If fertility remained constant over time and the reported data on both children ever born and children born during the three years preceding the survey are reasonably accurate, the TFR and the mean number of children ever born are expected to be similar. When fertility levels have been falling, the TFR will be substantially lower than the mean number of children ever born. The results show a completed fertility rate of 5.5 births per woman. Comparing the TFR with completed fertility reveals a slight decrease in fertility over the past few decades, from 5.5 to 5.1 births per woman. Whilst most of the results for sub-groups are consistent with this trend, fertility has increased somewhat among women in the Eastern Region, those with no education, and women in the lowest and middle wealth quintiles. The biggest increase is observed among women in the lowest wealth quintile who reported a 13 percent increase in fertility, from 5.6 to 6.3 births per woman.

4.3 FERTILITY TRENDS

Trends in fertility over time can be examined by comparing age-specific fertility rates from the 2008 SLDHS for successive five-year periods preceding the survey, as shown in Table 4.3. Because women 50 years and over were not interviewed in the survey, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey because these women would have been over age 50 at the time of the survey and therefore not eligible to be interviewed.

The results in Table 4.3 show that fertility has declined among all age groups over the past ten years. However, fertility increased among all age groups between the period 15-19 years before the survey and the period 10-14 years before the survey, with the largest increase observed among women who were age 25-29 at the time of the birth.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Sierra Leone 2008

Mother's age at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	143	172	170	152
20-24	214	259	242	228
25-29	210	252	267	203
30-34	185	233	226	[232]
35-39	142	194	[218]	
40-44	78	[146]		
45-49	[35]			

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

4.4 CHILDREN EVER BORN AND CHILDREN SURVIVING

The number of children ever born, the mean number of children ever born, and the mean number of surviving children for all women and for those currently married, are presented in Table 4.4.

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children	
	0	1	2	3	4	5	6	7	8	9	10+					
ALL WOMEN																
15-19	72.2	21.9	5.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,198	0.34	0.30	
20-24	27.4	28.8	26.7	12.8	3.7	0.6	0.1	0.0	0.0	0.0	0.0	100.0	1,186	1.39	1.19	
25-29	7.9	16.9	27.4	20.5	15.0	7.9	3.5	0.7	0.3	0.0	0.0	100.0	1,643	2.61	2.16	
30-34	3.8	8.9	15.0	21.1	18.8	15.0	10.0	4.4	1.8	0.6	0.5	100.0	1,043	3.69	3.01	
35-39	3.3	5.8	9.6	13.7	15.5	13.7	14.9	11.4	7.7	2.7	1.6	100.0	1,131	4.69	3.76	
40-44	2.0	5.3	6.9	10.4	12.0	15.3	12.9	13.2	9.2	6.9	5.7	100.0	652	5.41	4.16	
45-49	3.0	3.1	8.4	9.5	13.6	9.7	12.4	12.9	10.2	6.5	10.8	100.0	520	5.70	4.32	
Total	19.3	14.8	16.1	13.4	11.0	8.1	6.5	4.6	3.0	1.6	1.6	100.0	7,374	2.98	2.40	
CURRENTLY MARRIED WOMEN																
15-19	38.3	46.5	14.1	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	359	0.78	0.72	
20-24	13.0	29.7	33.7	17.7	4.9	0.9	0.1	0.0	0.0	0.0	0.0	100.0	812	1.75	1.50	
25-29	5.2	15.2	27.4	22.1	16.2	8.7	4.0	0.8	0.3	0.0	0.0	100.0	1,429	2.77	2.30	
30-34	2.1	7.9	14.1	21.3	20.2	16.1	10.8	4.4	1.9	0.6	0.5	100.0	899	3.84	3.14	
35-39	2.9	5.2	9.3	14.3	15.6	13.9	14.7	11.3	8.2	2.9	1.6	100.0	1,022	4.75	3.82	
40-44	1.8	4.3	6.7	10.2	12.4	15.6	12.8	13.5	9.1	7.8	5.8	100.0	572	5.52	4.25	
45-49	3.0	2.6	8.9	10.1	13.4	9.3	11.9	12.4	10.6	6.1	11.6	100.0	431	5.72	4.39	
Total	7.1	14.2	18.4	16.3	13.4	9.9	7.8	5.4	3.7	1.9	1.9	100.0	5,525	3.55	2.86	

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

The data show that 72 percent of young women age 15-19 have never given birth. This implies that about 28 percent of these teenagers have already had at least one birth. The percentage of women with no children decreases rapidly to 8 percent among women age 25-29, and by age 40 only about 2 percent of women are childless. This indicates that childbearing is nearly universal among women in Sierra Leone. At the time of the survey, 19 percent of all women were childless. On average, women nearing the end of their reproductive years have attained a parity of 5.7 children, which is higher than the total fertility rate of 5.1 births per woman.

Similar patterns are observed for currently married women. At the time of the survey, less than one in ten currently married women (7 percent) were childless. Again, this suggests that childbearing is universal among Sierra Leonean women. The mean number of children ever born is higher for currently married women (3.6 children) than for all women (3.0 children). This difference is due to the substantial proportion of young and unmarried women in the latter group.

Table 4.4 shows that the mean number of children surviving increases with age for both all women and currently married women, a pattern similar to that observed for children ever born. The mean number of children surviving is also similar for both groups of women.

4.5 BIRTH INTERVALS

Birth interval is the length of time between two successive live births. Information on birth intervals provides insight into birth spacing patterns, which affect fertility as well as maternal, infant and childhood mortality. Studies have shown that short birth intervals are associated with increased risk of death for mother and child, particularly when the birth interval is less than 24 months. The Sierra Leone National Population Policy recommends a birth interval of at least 24 months for Sierra Leonean women.

Table 4.5 shows the percent distribution of non-first births in the five years preceding the survey by number of months since the preceding birth, according to various background characteristics.

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	48-59	60+			
Age									
15-19	10.3	19.4	35.7	17.6	9.1	7.9	100.0	67	30.3
20-29	6.4	12.6	34.4	20.1	12.6	13.9	100.0	2,148	35.0
30-39	4.7	10.4	31.4	20.0	11.5	22.1	100.0	1,921	38.1
40-49	7.0	14.3	22.9	20.4	9.7	25.7	100.0	511	39.3
Sex of preceding birth									
Male	6.4	12.4	31.1	19.5	11.9	18.8	100.0	2,365	36.1
Female	5.2	11.5	32.8	20.6	11.7	18.2	100.0	2,282	36.4
Survival of preceding birth									
Living	4.2	11.2	32.4	20.6	12.3	19.4	100.0	3,889	37.2
Dead	14.1	15.9	29.5	17.2	9.2	14.0	100.0	758	31.0
Birth order									
2-3	5.0	12.0	31.5	19.4	12.8	19.3	100.0	2,150	36.9
4-6	5.8	11.5	32.0	20.3	12.2	18.2	100.0	1,857	36.4
7+	8.2	13.3	33.0	21.5	7.3	16.8	100.0	641	34.2
Residence									
Urban	5.8	8.3	27.5	20.3	13.2	24.9	100.0	1,166	40.1
Rural	5.8	13.2	33.4	20.0	11.3	16.4	100.0	3,481	35.3
Region									
Eastern	7.0	10.8	33.6	20.4	10.3	17.9	100.0	929	35.6
Northern	5.0	11.7	33.2	20.4	12.3	17.3	100.0	2,177	36.1
Southern	7.5	15.8	31.5	19.9	9.8	15.4	100.0	963	33.8
Western	3.8	8.5	24.9	18.2	15.4	29.2	100.0	579	43.6
Education									
No education	6.2	12.5	32.7	20.2	12.1	16.4	100.0	3,731	35.6
Primary	4.5	12.8	31.7	20.9	9.1	21.1	100.0	524	36.6
Secondary or higher	3.8	6.1	25.0	17.6	12.4	35.1	100.0	393	45.9
Wealth quintile									
Lowest	5.9	14.4	34.1	21.0	10.8	13.9	100.0	1,101	34.8
Second	5.6	13.1	34.5	17.9	12.0	16.9	100.0	1,006	35.0
Middle	7.2	12.0	32.3	21.4	10.4	16.6	100.0	1,073	35.5
Fourth	4.5	11.2	31.7	19.7	12.2	20.7	100.0	861	37.1
Highest	5.2	6.6	23.2	19.9	15.2	30.0	100.0	606	44.7
Total	5.8	12.0	31.9	20.0	11.8	18.5	100.0	4,648	36.2

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

The overall median birth interval in Sierra Leone is 36.2 months, 12.2 months higher than the birth interval of 24 months recommended in the National Population Policy. The median number of months since a preceding birth increases steadily with age, from a low of 30.0 months among mothers age 15-19 to a high of 39.3 months among mothers age 40-49. There is no marked difference in the length of the median birth interval by birth order or sex of the preceding birth.

The data indicate that the longest birth intervals occur among women with secondary or higher education (45.9 months) and women in households in the highest wealth quintile (44.7 months). Table 4.5 also shows that urban women have longer birth intervals than their rural counterparts (40.1 and 35.3 months, respectively). Looking at regions, the shortest birth interval is reported by women in the Southern Region (33.8 months), while the longest interval is reported by women in the Western Region (43.6 months).

Finally, Table 4.5 shows that less than one in five (18 percent) non-first births in the past five years were born less than 24 months after the preceding births.

4.6 AGE AT FIRST BIRTH

Concerns about age at first birth have been raised by demographers and health providers not only because of its implications for fertility and reproductive health, but also for its implications regarding the overall health of both mother and child. Early exposure to childbearing can lead to increased fertility, especially in environments with low contraceptive prevalence. Early childbearing can also lead to clinical complications such as vesico-vaginal fistula. Table 4.6 shows the median age at first birth and the percentage of women who gave birth by exact ages, by five-year age groups.

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	5.7	na	na	na	na	72.2	1,198	a
20-24	12.8	39.9	57.9	na	na	27.4	1,186	19.2
25-29	12.2	40.7	59.9	74.5	87.9	7.9	1,643	19.0
30-34	13.3	39.3	59.3	73.2	86.0	3.8	1,043	19.0
35-39	11.8	38.4	50.9	64.4	79.3	3.3	1,131	19.8
40-44	12.3	37.1	54.4	66.5	79.1	2.0	652	19.5
45-49	11.7	36.9	52.0	64.9	73.4	3.0	520	19.7
20-49	12.4	39.2	56.5	na	na	9.1	6,176	19.2
25-49	12.3	39.0	56.2	69.9	82.9	4.7	4,990	19.3

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

Childbearing begins early in Sierra Leone. The median age at first birth for women age 25-49 is 19.3 years, comparable to the median age at first birth for women age 20-49 (19.2 years).

Further analysis of the data in Table 4.6 suggests that the median age at first birth is slightly lower among younger women (under 35 years) compared with older women (35 years and over), implying that more women are having births at younger ages. It should be noted that almost four in ten Sierra Leonean women have given birth before age 18, while over half (56 percent) have had a birth by age 20. Variation in the median age at first birth by background characteristics is presented in Table 4.7.

Table 4.7 Median age at first birth								
Median age at first birth among women age 20-49 years, according to background characteristics, Sierra Leone 2008								
Background characteristic	Age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	20.1	19.3	18.7	18.9	19.3	19.7	19.3
Rural	18.2	18.6	18.8	20.3	19.7	20.0	19.0	19.2
Region								
Eastern	18.7	19.1	20.2	20.3	20.3	19.2	19.5	19.7
Northern	18.5	18.5	18.5	19.8	19.7	20.1	18.9	19.0
Southern	18.0	18.8	19.0	20.2	19.2	20.5	19.0	19.2
Western	a	20.6	19.2	18.7	19.2	19.2	19.9	19.5
Education								
No education	18.0	18.6	18.7	20.1	19.5	19.9	18.9	19.1
Primary	17.9	19.1	19.3	20.5	19.0	18.7	19.1	19.3
Secondary or higher	a	22.0	20.0	18.4	20.1	19.7	a	20.2
Wealth quintile								
Lowest	18.2	19.0	19.2	20.4	21.2	20.0	19.3	19.5
Second	17.8	18.8	19.1	20.6	19.6	19.4	19.0	19.3
Middle	18.0	18.2	18.7	19.7	19.5	20.9	18.8	19.0
Fourth	19.4	18.9	17.7	19.6	19.0	19.5	19.0	18.9
Highest	a	20.6	19.7	18.6	19.0	19.0	a	19.6
Total	19.2	19.0	19.0	19.8	19.5	19.7	19.2	19.3

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

The results indicate that there are no major differences in the median age at first birth by urban-rural residence. With respect to region, the onset of childbearing is earliest in the Northern Region (19.0 years), which is characterized by large family size, and the latest is in the Eastern Region (19.7 years). Increasing education leads to a delay in childbearing; the most profound effect was observed for women with secondary or higher education. No consistent pattern was seen regarding the effect of wealth on the onset of childbearing.

4.7 ADOLESCENT FERTILITY AND MOTHERHOOD

Adolescent pregnancy and motherhood were identified by the Government of Sierra Leone as serious social, economic, and health risks for young girls (Sierra Leone Government, 1993). Early teenage pregnancy can cause severe health problems for both the mother and child. Moreover, an early start to childbearing greatly reduces the educational and employment opportunities of women and is associated with higher levels of fertility. There is ongoing concern about this matter on the part of the Sierra Leone Government and its partners involved in the reproductive health of young people. The government has formulated the National Reproductive Health Policy, which identifies the complications of pregnancy, child birth, and unsafe abortion as major causes of death among women age 15-19.

Table 4.8 shows the percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and the total percentage who have begun childbearing, by background characteristics.

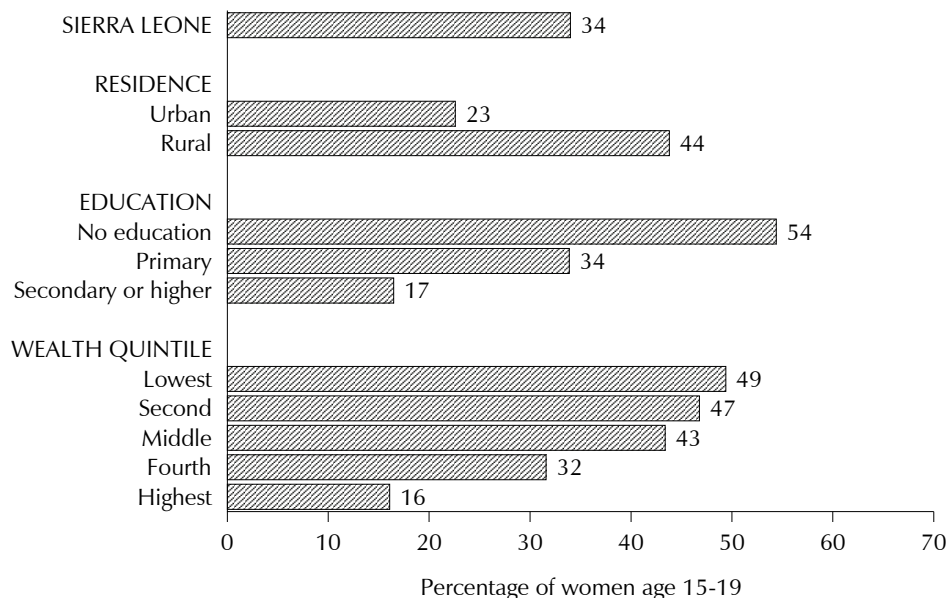
The results indicate that 34 percent of all adolescent women age 15-19 have already had a birth or were pregnant with their first child at the time of the survey (28 percent had had a live birth and 6 percent were pregnant with their first child). Figure 4.3 shows the variation in adolescent childbearing by background characteristics.

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, Sierra Leone 2008

Background characteristic	Percentage who:			Number of women
	Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	
Age				
15	7.1	4.2	11.3	230
16	15.7	5.1	20.8	230
17	25.7	3.2	28.9	168
18	39.1	8.0	47.2	339
19	45.1	9.1	54.2	231
Residence				
Urban	17.1	5.4	22.6	551
Rural	36.8	7.0	43.8	647
Region				
Eastern	32.2	5.7	37.9	229
Northern	32.6	6.9	39.6	460
Southern	29.5	7.8	37.4	239
Western	14.2	4.2	18.4	270
Education				
No education	46.3	8.1	54.4	409
Primary	27.6	6.3	33.9	315
Secondary or higher	11.9	4.6	16.5	474
Wealth quintile				
Lowest	42.5	6.9	49.4	182
Second	37.9	8.8	46.8	184
Middle	34.3	9.1	43.4	212
Fourth	25.9	5.7	31.6	257
Highest	12.8	3.3	16.1	363
Total	27.8	6.2	34.0	1,198

Figure 4.3 Percentage of Adolescent Women Who Have Begun Childbearing by Background Characteristics



Sierra Leone, 2008

Adolescent childbearing is positively related to age, with 11 percent of women age 15 having begun childbearing compared with 54 percent of women age 19. Adolescent childbearing in rural areas is about twice as high as in urban areas (44 and 23 percent, respectively). By region, the proportion of teenagers who have begun childbearing ranges from 18 percent in the Western Region to 40 percent in the Northern Region.

Education is negatively associated with adolescent fertility, with uneducated teenagers being more than three times as likely to have begun childbearing as those with secondary or higher education. Household wealth status is also negatively associated with adolescent fertility; teenagers in the poorest households are most likely to have begun childbearing.

This chapter presents results from the 2008 SLDHS regarding aspects of contraceptive knowledge and past and current prevalence. Special attention is focused on the source of contraception, informed choice, non-use, and intention to use contraceptive methods in the future. The chapter also contains information on exposure to family planning messages through the media, contact with family planning providers, and husband's knowledge of wife's use of contraception. These topics are of practical use to policy-makers and programme administrators in formulating effective family planning strategies. Although the focus of this chapter is on women, some results from the male survey are discussed because men play an important role in the realization of reproductive goals. To get an indication of interspousal communication and the decision-making process regarding family planning in the household, the study compares the responses of men, where possible, with those of their wives.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

One major objective of the 2008 SLDHS was to assess the level of knowledge of contraceptive methods among women and men. Individuals who have adequate information about the available methods of contraception are better able to develop a rational approach to planning their families. Information on knowledge of contraception was collected in the survey by asking female and male respondents to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent had heard of it.

Contraceptive methods are grouped into two types in the tables in this chapter: modern and traditional. Modern methods include female sterilization, male sterilization, the pill, intrauterine device (IUD), injectables, implants, male condom, female condom, foam/jelly, lactational amenorrhoea method (LAM), and emergency contraception. Traditional methods include the rhythm method (periodic abstinence) and withdrawal. Provision was made in the questionnaire to record any other methods, including folk methods named spontaneously by the respondent.

Table 5.1 shows data on the level of knowledge of contraceptive methods among all women and men age 15-49, as well as among those who are currently married and those who are sexually active but not married, by specific methods. According to Table 5.1, 74 percent of all women have heard of a method of contraception, compared with 83 percent of all men. Knowledge of a modern method is more widespread than knowledge of traditional methods. For example, 69 percent of all women have heard of a modern method, compared with just 44 percent who have heard of a traditional method.

Among all groups of women and men, the three best known methods are the pill, injectables, and the male condom. About six in ten women (61 percent) have heard of the pill, compared with about half (49 percent) of men. However, nearly six in ten women have heard of the male condom, compared with eight in ten men. The least well-known methods are implants, foam/jelly, emergency contraception, male sterilization, and LAM. In general, women are more likely to know about female-oriented methods such as the pill, IUD, and injectables and men are more likely to know about male-oriented methods such as male sterilization and male condoms. Exceptions are female sterilization, implants, foam/jelly, emergency contraception, and female condoms, which are better known to men than women. Men are more aware of the rhythm method and withdrawal (20 and 36 percent, respectively) than women (11 and 12 percent, respectively). However, sexually active unmarried women are more aware of the rhythm method than sexually active unmarried men (29 and 24 percent,

respectively). Women are much more likely to mention folk methods than men: 34 percent of all women, compared with 18 percent of all men.

Awareness of specific family planning methods is similar for all women and for currently married women, but awareness of methods is markedly higher sexually active unmarried women. Similarly, sexually active unmarried men are generally more likely to have heard of specific methods, compared with all men and currently married men.

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 sex and specific method, Sierra Leone 2008

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	74.4	72.8	91.1	83.3	85.3	87.6
Any modern method	68.7	66.2	88.1	82.1	83.7	87.0
Female sterilization	22.5	21.7	29.5	27.1	31.1	25.0
Male sterilization	6.7	5.9	13.0	14.6	15.9	16.9
Pill	60.8	58.7	81.4	49.1	52.0	54.3
IUD	26.1	22.4	52.0	19.4	20.3	21.1
Injectables	59.4	57.6	79.3	48.7	51.8	52.9
Implants	3.7	3.1	9.5	5.3	6.0	4.3
Male condom	58.4	54.7	83.1	80.1	81.6	85.6
Female condom	17.4	14.3	39.4	22.1	23.4	26.4
Foam/jelly	4.1	3.0	11.6	11.4	13.1	11.2
Lactational amenorrhoea method (LAM)	8.5	8.3	13.6	8.7	10.7	7.1
Emergency contraception	6.2	4.7	17.2	13.7	13.9	17.7
Any traditional method	44.4	45.4	55.1	44.5	48.8	50.8
Rhythm	10.6	8.3	28.9	20.0	20.6	23.7
Withdrawal	12.2	9.9	30.0	35.9	38.7	44.2
Folk method	34.3	37.7	29.5	17.6	21.2	16.3
Mean number of methods known by respondents 15-49	3.3	3.1	5.2	3.7	4.0	4.1
Number of respondents	7,374	5,525	551	2,944	1,767	402
Mean number of methods known by respondents 15-59	na	na	na	3.7	4.0	4.1
Number of respondents	na	na	na	3,280	2,077	411

na = Not applicable
¹ Respondent had sexual intercourse in the 30 days preceding the survey

The mean number of methods known is a rough indicator of the breadth of knowledge of family planning methods. On average, currently married women, who have the greatest exposure to the risk of pregnancy, know at least three methods of contraception. Currently married men know at least four methods of contraception.

Table 5.2 shows differentials in knowledge of any contraceptive method and any modern contraceptive method among currently married women and men by background characteristics. Knowledge of at least one method is high among men and moderately high among women. It is lower among currently married women and men in rural areas (68 and 81 percent, respectively) than among those in urban areas (85 and 96 percent, respectively). By region, knowledge of at least one method is lowest among women in the Northern Region (67 percent) and among men in the Northern and Southern regions (80 percent, each). Knowledge of at least one contraceptive method increases with level of education and wealth quintile for both women and men. For example, only 65 percent of women in the lowest wealth quintile have heard of any method of family planning, compared with 89 percent of those in the highest wealth quintile. Variation in knowledge of any modern method follows similar patterns to variation in knowledge of any method.

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, Sierra Leone 2008

Background characteristic	Women			Men		
	Has heard of any method	Has heard of any modern method ¹	Number of women	Has heard of any method	Has heard of any modern method ¹	Number of men
Age						
15-19	58.2	48.6	359	*	*	5
20-24	76.3	70.3	812	87.5	85.8	79
25-29	73.6	67.8	1,429	87.0	87.0	283
30-34	74.4	67.4	899	80.6	79.8	308
35-39	73.3	66.3	1,022	88.9	85.9	479
40-44	73.4	68.2	572	87.5	85.6	303
45-49	70.8	62.5	431	80.6	78.8	310
Residence						
Urban	84.8	81.3	1,561	95.7	95.0	517
Rural	68.1	60.2	3,965	81.0	79.0	1,250
Region						
Eastern	72.3	70.8	1,028	90.9	89.5	382
Northern	66.5	56.1	2,434	80.1	78.8	689
Southern	75.3	67.6	1,206	79.5	75.7	388
Western	87.8	87.4	858	97.5	97.5	308
Education						
No education	68.3	60.4	4,280	79.0	76.8	1,081
Primary	85.5	82.3	601	89.1	88.4	203
Secondary or higher	91.1	90.0	644	97.9	97.1	483
Wealth quintile						
Lowest	65.0	57.7	1,178	72.2	67.2	391
Second	63.7	55.3	1,144	80.8	79.1	370
Middle	69.2	58.9	1,186	85.8	85.3	350
Fourth	80.3	75.7	1,051	93.8	93.5	353
Highest	89.4	88.0	967	97.4	97.1	303
Total 15-49	72.8	66.2	5,525	85.3	83.7	1,767
50-59	na	na	na	77.7	77.3	310
Total 15-59	na	na	na	84.2	82.7	2,077

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

na = Not applicable

¹ Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, diaphragm, foam or jelly, lactational amenorrhoea method (LAM), and emergency contraception

5.2 EVER USE OF CONTRACEPTION

Data on ever use of contraception has special significance because it shows the cumulative success of programmes promoting the use of family planning among couples. Ever use refers to use of a method at any time, with no distinction between past and present use. All respondents interviewed in the 2008 SLDHS who said that they had heard of a method of family planning were asked whether they had ever used that method. Men were only asked about ever use of methods that require male participation, i.e., male sterilization, male condom, rhythm method, and withdrawal. Table 5.3.1 shows the percentage of all women, currently married women, and sexually active unmarried women who have ever used specific methods of family planning, by age. Table 5.3.2 presents comparable information for men.

Table 5.3.1 shows that only 21 percent of currently married women have ever used a contraceptive method, 19 percent have used a modern method, and 6 percent have used a traditional method. The methods most commonly used by currently married women are the pill (9 percent) and injectables (8 percent), followed by the male condom, LAM, and folk methods (each used by 4 percent of women).

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, Sierra Leone 2008

Age	Modern method										Traditional method				Number of women		
	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	Foam/jelly	LAM	Emergency contraception	Any traditional method	Rhythm		Withdrawal	Folk method
ALL WOMEN																	
CURRENTLY MARRIED WOMEN																	
15-19	13.2	10.7	0.0	4.3	0.4	1.9	0.0	4.8	0.5	0.1	1.2	0.9	4.3	1.7	1.6	2.1	1,198
20-24	25.5	21.9	0.0	9.2	0.8	7.0	0.0	9.2	0.2	0.2	2.8	2.1	10.0	4.0	5.0	3.0	1,186
25+	25.6	22.5	0.1	10.8	1.3	9.6	0.1	5.1	0.2	0.1	3.7	0.9	7.1	2.0	1.9	4.2	4,990
Total	23.6	20.5	0.0	9.5	1.1	7.9	0.1	5.7	0.2	0.1	3.1	1.1	7.1	2.3	2.3	3.6	7,374
SEXUALLY ACTIVE UNMARRIED WOMEN ¹																	
15-19	6.0	5.7	0.0	1.9	0.0	0.3	0.0	1.6	0.5	0.0	1.5	0.0	1.0	0.1	0.5	0.4	359
20-24	17.0	14.1	0.0	5.8	0.7	5.2	0.0	4.1	0.2	0.0	3.3	0.6	5.7	1.4	2.3	3.0	812
25+	23.5	20.5	0.0	9.7	1.1	8.9	0.1	4.4	0.1	0.1	3.8	0.7	6.3	1.4	1.4	4.2	4,355
Total	21.4	18.6	0.0	8.6	1.0	7.8	0.1	4.1	0.1	0.1	3.5	0.6	5.9	1.3	1.4	3.8	5,525
15-19	40.9	31.9	0.0	14.6	0.4	7.7	0.0	15.5	2.4	0.0	1.8	4.9	18.4	7.7	7.2	9.6	186
20-24	62.1	55.0	0.0	29.6	0.4	14.8	0.0	29.2	0.6	0.0	0.8	8.7	29.7	16.9	15.1	4.8	157
25+	53.8	48.7	0.5	26.4	3.1	16.0	0.7	15.4	1.0	0.0	2.6	3.3	17.9	9.5	8.1	5.3	208
Total	51.8	44.8	0.2	23.3	1.4	12.8	0.3	19.3	1.4	0.0	1.8	5.4	21.4	11.0	9.8	6.6	551

LAM = Lactational amenorrhoea method

¹ Women who had sexual intercourse in the 30 days preceding the survey

Ever use of any method is markedly higher among sexually active unmarried women than other women, with 52 percent of sexually active unmarried women having used a contraceptive method at some time, compared with 24 percent of all women. Sexually active unmarried women are much more likely to have used the male condom (19 percent) than either all women (6 percent) or currently married women (4 percent). They are also more likely to have used traditional methods, especially the rhythm method and withdrawal.

Table 5.3.2 shows that less than one-third of all men between the ages of 15 and 49 have ever used a male-oriented method of contraception. Ever use is highest among sexually active unmarried men, 47 percent of whom have used a method, compared with 28 percent of currently married men and 30 percent of all men. As expected, the male condom is the most common method ever used among the male-oriented methods. It was used at some time by 21 percent of currently married men and 42 percent of sexually active unmarried men. Interestingly, higher proportions of men than women report having used the rhythm method and withdrawal.

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, Sierra Leone 2008								
Age	Any method	Modern method			Traditional method			Number of men
		Any modern method	Male sterilization	Male condom	Any traditional method	Rhythm	Withdrawal	
ALL MEN								
15-19	13.4	10.1	0.4	10.0	6.1	2.4	5.4	526
20-24	40.4	34.3	0.7	34.2	24.0	11.0	21.2	403
25+	32.4	27.1	1.1	26.4	17.9	8.3	14.4	2,016
Total 15-49	30.1	25.1	0.9	24.6	16.6	7.6	13.7	2,944
50-59	19.9	13.9	1.8	12.8	13.4	6.4	9.5	336
Total 15-59	29.1	23.9	1.0	23.4	16.3	7.5	13.3	3,280
CURRENTLY MARRIED MEN								
15-19	*	*	*	*	*	*	*	5
20-24	29.2	23.4	0.0	23.4	18.2	8.1	16.8	79
25+	29.3	23.7	1.1	23.1	16.7	7.6	13.3	1,683
Total 15-49	29.4	23.7	1.1	23.1	16.8	7.7	13.5	1,767
50-59	18.7	12.9	1.9	11.7	12.5	6.7	8.6	310
Total 15-59	27.8	22.1	1.2	21.4	16.2	7.6	12.8	2,077
SEXUALLY ACTIVE UNMARRIED MEN ¹								
15-19	30.8	26.2	0.0	26.2	16.0	9.4	12.8	84
20-24	53.4	46.0	1.0	45.8	35.9	18.2	30.1	134
25+	48.7	45.0	0.2	45.0	26.0	11.6	22.2	184
Total 15-49	46.5	41.4	0.4	41.3	27.2	13.3	22.9	402
50-59	65.1	56.1	0.0	56.1	49.5	9.0	40.5	10
Total 15-59	46.9	41.7	0.4	41.7	27.7	13.2	23.3	411

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

¹ Men who had sexual intercourse in the 30 days preceding the survey

5.3 CURRENT USE OF CONTRACEPTIVE METHODS

This section presents information on the prevalence of contraceptive use among all women, currently married women, and sexually active unmarried women age 15-49. The level of current use is the most widely used and valuable measure of the success of a family planning programme. Furthermore, it can be used to estimate the reduction in fertility attributable to contraception. The contraceptive prevalence rate (CPR) is usually defined as the percentage of currently married women who are currently using a method of contraception.

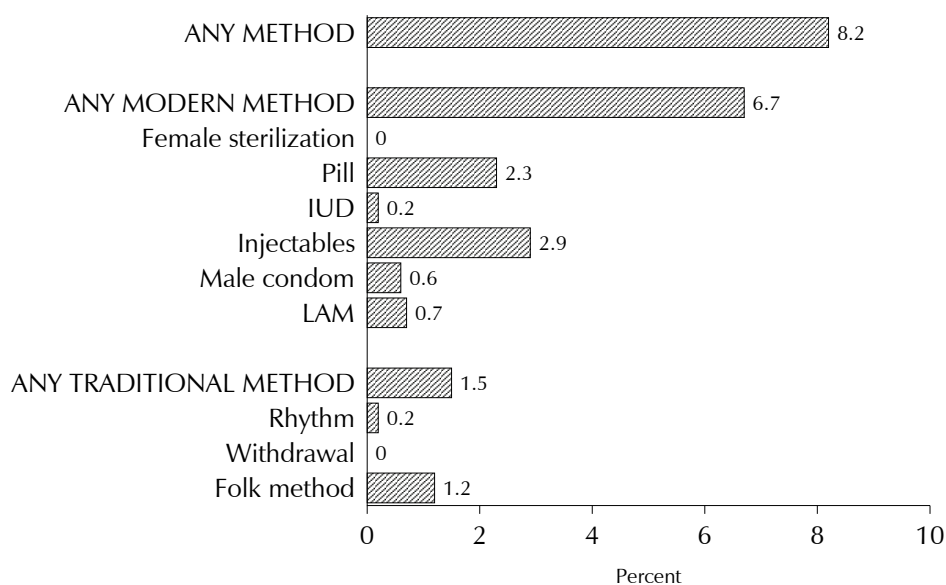
Table 5.4 shows the percent distribution of all women, currently married women, and sexually active unmarried women who are currently using specific family planning methods by age.

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, Sierra Leone 2008															
Age	Any method	Any modern method	Modern method						Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	Pill	IUD	Injectables	Male condom	LAM		Rhythm	Withdrawal	Folk method			
ALL WOMEN															
15-19	8.4	5.9	0.0	2.8	0.3	1.1	1.5	0.3	2.4	0.9	0.1	1.4	91.6	100.0	1,198
20-24	12.5	10.0	0.0	3.5	0.3	3.2	2.5	0.6	2.5	1.3	0.4	0.9	87.5	100.0	1,186
25-29	9.4	8.2	0.0	2.8	0.3	3.1	1.1	0.9	1.2	0.4	0.1	0.7	90.6	100.0	1,643
30-34	10.9	8.7	0.0	3.9	0.2	3.8	0.3	0.6	2.2	0.3	0.2	1.7	89.1	100.0	1,043
35-39	11.5	9.6	0.1	3.3	0.3	4.7	0.6	0.6	1.9	0.4	0.0	1.4	88.5	100.0	1,131
40-44	11.6	9.0	0.1	2.6	1.0	4.0	0.8	0.5	2.6	0.2	0.0	2.4	88.4	100.0	652
45-49	6.3	4.1	0.2	0.5	0.2	2.5	0.4	0.4	2.2	0.0	0.0	2.2	93.7	100.0	520
Total	10.2	8.2	0.0	2.9	0.3	3.2	1.1	0.6	2.0	0.6	0.1	1.3	89.8	100.0	7,374
CURRENTLY MARRIED WOMEN															
15-19	1.2	1.2	0.0	1.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	98.8	100.0	359
20-24	5.5	4.8	0.0	1.7	0.1	1.5	0.6	0.8	0.7	0.2	0.0	0.5	94.5	100.0	812
25-29	7.7	6.8	0.0	2.1	0.2	2.7	0.8	1.0	0.8	0.1	0.0	0.7	92.3	100.0	1,429
30-34	9.8	7.7	0.0	3.5	0.2	2.9	0.4	0.6	2.1	0.2	0.2	1.7	90.2	100.0	899
35-39	10.9	9.2	0.0	3.3	0.3	4.8	0.4	0.5	1.6	0.4	0.0	1.2	89.1	100.0	1,022
40-44	11.7	8.8	0.0	2.7	0.7	3.9	0.9	0.6	2.9	0.2	0.0	2.7	88.3	100.0	572
45-49	6.6	4.1	0.2	0.3	0.2	2.6	0.5	0.4	2.4	0.0	0.0	2.4	93.4	100.0	431
Total	8.2	6.7	0.0	2.3	0.2	2.9	0.6	0.7	1.5	0.2	0.0	1.2	91.8	100.0	5,525
SEXUALLY ACTIVE UNMARRIED WOMEN ¹															
15-19	31.4	20.5	0.0	10.1	0.4	4.0	6.1	0.0	10.9	3.5	0.0	7.4	68.6	100.0	186
20-24	46.3	33.7	0.0	13.7	0.0	11.5	8.5	0.0	12.6	8.0	1.3	3.4	53.7	100.0	157
25+	26.0	21.1	0.5	9.6	2.1	6.7	2.3	0.0	4.9	2.6	0.5	1.7	74.0	100.0	208
Total	33.6	24.5	0.2	11.0	0.9	7.1	5.3	0.0	9.1	4.5	0.5	4.1	66.4	100.0	551

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhoea method
¹ Women who had sexual intercourse in the 30 days preceding the survey

Table 5.4 and Figure 5.1 show that only 8 percent of currently married women are currently using some method of contraception. Modern methods of contraception account for almost all the use, with 7 percent of currently married women reporting using a modern method, compared with only 2 percent who are using a traditional method. Injectables (3 percent) and the pill (2 percent) are the most widely used methods among currently married women, followed by male condoms and LAM (each used by less than 1 percent of married women).

Figure 5.1 Current Use of Contraception among Currently Married Women Age 15-49



LAM = Lactational amenorrhoea method

Sierra Leone, 2008

Current use of modern methods is slightly higher among all women than among those who are currently married. However, current use is more than three times as high among sexually active unmarried women (25 percent) as among currently married women (7 percent) or all women (8 percent).

The proportion of currently married women currently using a method of contraception rises with age from 1 percent of those age 15-19 to 12 percent among those age 40-44, after which it declines to 7 percent for the 45-49 age group. It is interesting to note that among married women, the pill and injectables are the two most commonly used methods in every age group except women age 45-49, for whom folk methods are the second most commonly used method after injectables. Among sexually active unmarried women—most of whom are under age 25 (62 percent)—pills, injectables, and the male condom are the most commonly used methods.

5.4 DIFFERENTIALS IN CONTRACEPTIVE USE BY BACKGROUND CHARACTERISTICS

The study of differentials in current use of contraception is important because it helps identify subgroups of the population to target for family planning services. Table 5.5 presents information on the prevalence of current contraceptive use among currently married women by background characteristics. The data show that some women in Sierra Leone are more likely to use contraceptive methods than others. The proportion of currently married women using a contraceptive method increases with the number of children they have, from only 2 percent among those with no children to 12 percent among those with five or more children. Women in urban areas are more likely to use contraception (16 percent) than those in rural areas (5 percent).

Table 5.5 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, Sierra Leone 2008

Background characteristic	Any method	Any modern method	Modern method						Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	Pill	IUD	Injectables	Male condom	LAM		Rhythm	Withdrawal	Folk method			
Number of living children															
0	1.8	1.4	0.0	1.3	0.0	0.1	0.0	0.0	0.4	0.2	0.0	0.2	98.2	100.0	516
1-2	6.9	6.1	0.0	2.6	0.2	1.6	0.8	0.8	0.8	0.3	0.1	0.4	93.1	100.0	2,136
3-4	9.2	7.9	0.0	2.8	0.5	3.5	0.5	0.6	1.3	0.2	0.1	1.1	90.8	100.0	1,793
5+	12.3	8.7	0.0	1.7	0.1	5.7	0.5	0.7	3.6	0.0	0.0	3.5	87.7	100.0	1,080
Residence															
Urban	16.2	14.2	0.0	5.6	0.7	5.6	1.5	0.8	2.0	0.7	0.1	1.2	83.8	100.0	1,561
Rural	5.0	3.8	0.0	1.1	0.1	1.8	0.2	0.6	1.2	0.0	0.0	1.2	95.0	100.0	3,965
Region															
Eastern	6.2	5.4	0.1	2.7	0.0	1.8	0.4	0.3	0.8	0.1	0.1	0.6	93.8	100.0	1,028
Northern	4.4	3.1	0.0	0.7	0.1	1.9	0.4	0.0	1.3	0.0	0.0	1.3	95.6	100.0	2,434
Southern	8.4	6.8	0.0	2.4	0.1	2.3	0.1	1.9	1.6	0.1	0.0	1.5	91.6	100.0	1,206
Western	21.2	18.6	0.0	6.6	1.1	7.7	2.1	1.1	2.5	0.9	0.1	1.5	78.8	100.0	858
Education															
No education	5.7	4.4	0.0	1.3	0.1	2.3	0.2	0.5	1.3	0.0	0.0	1.3	94.3	100.0	4,280
Primary	10.8	9.5	0.0	4.2	0.0	3.4	0.3	1.5	1.4	0.1	0.0	1.3	89.2	100.0	601
Secondary or higher	22.3	19.5	0.0	7.7	1.2	6.1	3.5	1.1	2.7	1.6	0.3	0.9	77.7	100.0	644
Wealth quintile															
Lowest	4.4	3.0	0.0	0.7	0.0	1.1	0.2	1.0	1.4	0.0	0.0	1.4	95.6	100.0	1,178
Second	3.5	2.7	0.0	0.6	0.0	1.4	0.2	0.4	0.8	0.0	0.0	0.8	96.5	100.0	1,144
Middle	4.6	3.3	0.0	1.0	0.2	1.5	0.2	0.4	1.3	0.0	0.0	1.3	95.4	100.0	1,186
Fourth	10.6	8.9	0.1	3.3	0.1	4.2	0.6	0.6	1.7	0.2	0.0	1.5	89.4	100.0	1,051
Highest	20.2	18.0	0.0	6.9	1.0	7.1	2.0	1.0	2.2	0.9	0.2	1.1	79.8	100.0	967
Total	8.2	6.7	0.0	2.3	0.2	2.9	0.6	0.7	1.5	0.2	0.0	1.2	91.8	100.0	5,525

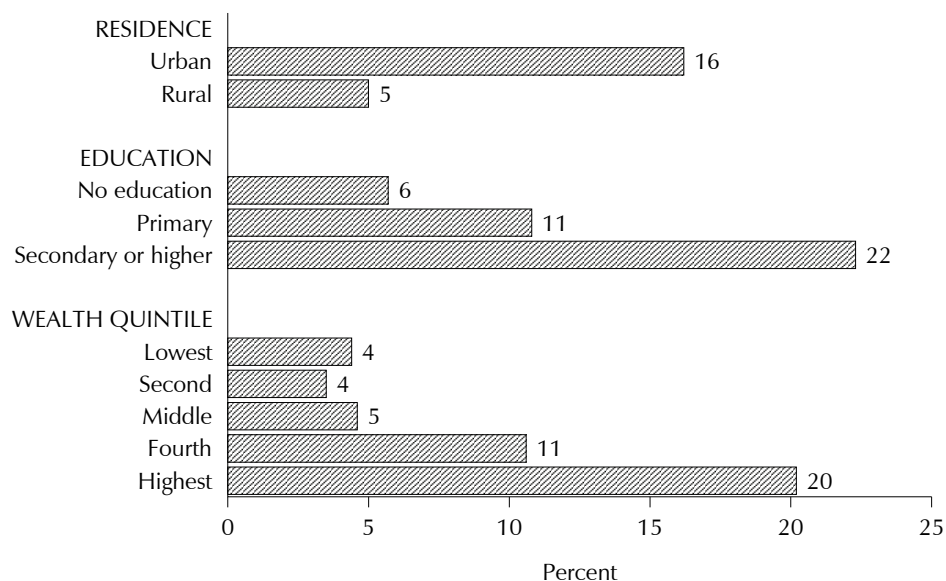
Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhoea method

Contraceptive use among currently married women is highest in the Western Region (21 percent) and lowest in the Northern Region (4 percent). Use of both modern and traditional methods increases with educational attainment, from 6 percent among currently married women with no education to 11 percent among those with primary education; more than one-fifth (20 percent) of currently married women with secondary or higher education are using a contraceptive method. Use of contraception also rises with wealth status, from 4 percent among married women in the two lowest wealth quintiles to 20 percent among those in the highest wealth quintile (Figure 5.2).

5.5 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

Couples generally use family planning methods to either limit family size or delay the next birth. Those who use family planning as a way to control family size (i.e., to stop having children) adopt contraception when they have reached the number of children they want. Those who see family planning as a way to delay the next birth use contraception to space births. Couples may start using family planning early, with the intention of delaying a pregnancy. This may be done before a couple has had their desired number of children. In a culture where smaller family size is becoming the norm, young women adopt family planning at an earlier age than their older counterparts.

Figure 5.2 Contraceptive Use among Currently Married Women by Residence, Level of Education, and Wealth Quintile



Sierra Leone, 2008

Women interviewed in the 2008 SLDHS were asked how many children they had at the time they first used a method of family planning. Table 5.6 shows the percent distribution of women by number of living children at the time of first use of contraception, according to current age.

The results indicate that more women in Sierra Leone are adopting family planning at lower parities (i.e., fewer children) than before. This can be seen from younger women reporting first use of contraception when they have fewer children than older women. For example, 15 percent of women age 20-24 reported first using contraception before they had any children, compared with only 3 percent of women age 45-49. Older women are far more likely to have waited until they had children before using contraception, with the largest proportions starting to use contraception only when they had four or more children.

Current age	Has not used contraception	Number of living children at first use of contraception					Missing	Total	Number of women
		0	1	2	3	4+			
15-19	86.8	10.3	2.4	0.1	0.0	0.0	0.5	100.0	1,198
20-24	74.5	15.1	6.0	3.3	0.6	0.0	0.6	100.0	1,186
25-29	77.2	6.5	6.3	5.1	2.5	1.7	0.7	100.0	1,643
30-34	70.0	7.2	6.2	5.5	4.5	5.9	0.7	100.0	1,043
35-39	73.6	3.4	3.9	4.2	4.0	10.5	0.4	100.0	1,131
40-44	71.5	3.8	4.6	2.1	3.2	14.2	0.6	100.0	652
45-49	79.7	2.6	3.0	2.5	2.4	8.8	1.0	100.0	520
Total	76.4	7.6	4.8	3.5	2.4	4.7	0.6	100.0	7,374

5.6 KNOWLEDGE OF THE FERTILE PERIOD

A basic knowledge of reproductive physiology provides a useful background for the successful practice of coitus-associated methods such as withdrawal and condoms. Such knowledge is particularly critical for the successful use of the rhythm method. The 2008 SLDHS included a question designed to obtain information on the respondent's understanding of when a woman is most likely to become pregnant during the menstrual cycle. All women were asked, 'From one menstrual period to the next, are there certain days when a woman is more likely to get pregnant if she has sexual intercourse?' If the answer was 'yes,' the respondent was further asked whether that time was just before her period begins, during her period, right after her period ends, or halfway between two periods. Table 5.7 shows the results of those questioned for all women and for women who reported they were currently using the rhythm method.

Table 5.7 Knowledge of 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, Sierra Leone 2008

Perceived fertile period	Users of rhythm method	Non-users of rhythm method	All women
Just before menstrual period begins	(9.9)	3.6	3.6
During menstrual period	(0.0)	1.1	1.1
Right after menstrual period has ended	(13.0)	9.4	9.4
Halfway between two menstrual periods	(73.4)	13.7	14.1
Other	(0.0)	0.1	0.1
No specific time	(2.0)	24.9	24.8
Don't know	(1.7)	46.1	45.9
Missing	(0.0)	1.1	1.1
Total	100.0	100.0	100.0
Number of women	42	7,332	7,374

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

Among all women, about one in seven (14 percent) understand that a woman is most likely to conceive halfway between her menstrual periods. Nine percent wrongly identified the fertile period as right after a woman's period has ended, and one-quarter of women said that there is no specific fertile time. Slightly less than half of women (46 percent) reported they do not know when the fertile period falls.

As expected, women who are using the rhythm method are more likely than non-users to know that the fertile time in a woman's menstrual cycle is halfway between periods, and less likely to say that there is no specific fertile time; however, the number of rhythm users is too small to draw meaningful conclusions.

5.7 SOURCE OF CONTRACEPTION

Information on where women obtain their contraceptive methods is useful for family planning programme managers and implementers to enable proper logistics planning. In the 2008 SLDHS, women who reported using a modern contraceptive method at the time of the survey were asked where they obtained the method the last time they acquired it. Because some women may not know in which category the source they used falls (e.g., government or private, health centre or clinic), interviewers were instructed to write down the full name of the source or facility. Supervisors and field editors were told to verify that the name and source type were consistent, asking informants in the clusters for the names of local family planning outlets, if necessary. This practice was designed to improve the accuracy of source reporting.

Table 5.8 shows that half of contraceptive users obtain their methods from the public sector. Government health centres are the most common public source (18 percent), followed by government family planning clinics (15 percent) and government hospitals (14 percent).

Source	Pill	Injectables	Male condom	Total
Public sector	37.8	71.0	19.2	50.4
Government hospital	9.3	17.4	11.7	13.7
Government health centre	12.0	29.5	2.6	18.1
Family planning clinic	14.7	18.8	2.1	15.0
Mobile clinic	1.2	0.8	0.0	1.0
Fieldworker	0.6	4.1	2.9	2.4
Other public	0.0	0.4	0.0	0.2
Private medical sector	56.9	25.7	31.4	38.9
Private hospital/ clinic	6.8	9.3	2.2	8.4
Pharmacy	44.2	12.4	26.7	26.2
Private doctor	0.5	0.4	0.0	0.4
Private mobile clinic	1.5	1.1	2.0	1.3
Private fieldworker	0.7	0.9	0.5	0.7
Other private medical	3.3	1.7	0.0	2.0
Other source	1.7	0.0	39.1	6.4
Shop	1.2	0.0	0.3	0.5
Friend/relative	0.6	0.0	38.7	5.9
Other	0.5	0.5	6.6	1.4
Missing	3.1	2.8	3.7	2.9
Total	100.0	100.0	100.0	100.0
Number of women	217	233	82	560

¹ Total includes 3 users of female sterilization, 25 users of the IUD and users of other modern methods, but excludes lactational amenorrhoea method (LAM).

Thirty-nine percent of women use the private medical sector to obtain their contraceptive methods. Pharmacies (26 percent) account for the largest group of providers in the medical private sector. Eight percent of women obtain their methods from private hospitals and clinics. Six percent of women using a modern method of contraception get their method from other sources, mostly from friends or relatives.

The type of source differs by method. Whereas over two-thirds of injectable users obtain their method from a government source, condom users are more likely to use 'other' sources (39 percent) or the private medical sector (31 percent) than a government source (19 percent). Over half of pill users get their method from private facilities (57 percent), but a sizeable portion (38 percent) depend on the public sector for this method.

5.8 INFORMED CHOICE

Informed choice is an important tool for monitoring the quality of family planning services. Users of modern methods should be informed about the choices they have and the methods available to them. Family planning providers should inform all method users of potential side effects and what to do if they experience a problem. This information assists users in coping with side effects and decreases unnecessary discontinuation of temporary methods.

Current users of modern methods who are well informed about the side effects and problems associated with contraceptive methods and know the range of method options available are better placed to make an informed choice about the method they would like to use. Current users of modern contraceptive methods were asked whether, at the time they adopted the particular method, they were informed about the side effects or problems they might encounter with the method. Table 5.9 shows the percentage of current users of modern methods who were informed about the side effects of the method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed of other contraceptive methods they could use.

Table 5.9 Informed choice

Among current users of selected modern methods of contraception age 15-49 who started the last episode of use in the five years preceding the survey, the percentage who were informed about possible side effects or problems of the 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 by initial source of method, Sierra Leone 2008

Method/source	Among women who started last episode of use of modern contraceptive method in the past five years, percentage who were:			Number of women
	Informed about side effects or problems of method used	Informed about what to do if experienced side effects	Informed by a health or family planning worker of other methods that could be used	
Method				
Pill	44.7	43.5	57.7	187
IUD	*	*	*	16
Injectables	63.9	65.6	57.8	205
Initial source of method¹				
Public medical sector	64.8	66.0	64.1	246
Private medical sector	39.1	38.8	51.1	122
Other private sector	*	*	*	21
Total	54.9	55.2	57.6	408

Note: Table includes only the contraceptive methods shown. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 19 women with information missing on initial source of method.
¹ Source at start of current episode of use

Over half (55 percent) of users of modern contraceptive methods were informed of the side effects or health problems that can be associated with the method they were provided and what to do if they experienced side effects. About six in ten (58 percent) users of modern methods were told of other methods that were available. The results indicate that injectable users are more likely than pill users to be told about side effects of the method (64 and 45 percent, respectively) and what to do if they experienced side effects (66 and 44 percent, respectively). An equal proportion (58 percent each) of pill users and injectables users were informed about other methods they might use.

Regarding the source of supply, users who obtained their methods from public facilities—especially government health clinics—were more likely to be informed about the side effects or problems associated with their methods than were users who obtained their methods from the private medical sector.

5.9 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which non-users of contraception plan to use family planning in the future. Women who were not currently using a method of contraception were asked about their intention to use family planning in the future. The results are presented in Table 5.10.

Twenty-eight percent of currently married non-users say they intend to use family planning in the future. On the other hand, 48 percent do not intend to use family planning and 23 percent are unsure. The proportion of those intending to use varies with the number of living children, increasing from 16 percent for those with no child to a peak of 33 percent for those with four or more children. The proportion of currently married women who are not using any contraception and who do not intend to use in the future is highest among those with no children (61 percent).

Table 5.10 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, Sierra Leone 2008

Intention to use contraception	Number of living children ¹					Total
	0	1	2	3	4+	
Intends to use	15.8	23.1	25.2	29.5	32.7	27.5
Unsure	21.2	24.6	26.2	22.0	21.0	23.0
Does not intend to use	60.9	51.3	47.7	47.2	45.0	48.3
Missing	2.1	1.0	0.8	1.3	1.4	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	386	920	1,076	925	1,766	5,072

¹ Includes current pregnancy

5.10 REASONS FOR NOT INTENDING TO USE CONTRACEPTION

Understanding the reasons women give for not using family planning methods is critical to designing programmes that improve the quality of services. Table 5.11 presents the main reasons for not intending to use contraception as reported by currently married women who are not using a method and who do not intend to use a contraceptive method in the future.

Fourteen percent of non-users said they do not intend to use a contraceptive method in the future because they are opposed to family planning, and a similar proportion said that their husband or partner was opposed to family planning. The next most common reasons given for not intending to use contraception were fear of side effects, desire for more children, and lack of knowledge of any method (11 percent, each). Other reasons given were infecundity/subfecundity (10 percent), religious prohibition (9 percent), menopause/hysterectomy (6 percent), and health concerns (3 percent). Interestingly, very few women cited lack of access to family planning or cost of family planning methods as the main reason they do not intend to use family planning.

Table 5.11 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, Sierra Leone 2008

Reason	Percent
Fertility-related reasons	
Infrequent sex/no sex	1.4
Menopausal/had hysterectomy	6.0
Subfecund/infecund	9.5
Wants as many children as possible	10.8
Opposition to use	
Respondent opposed	13.5
Husband/partner opposed	14.4
Others opposed	0.2
Religious prohibition	9.3
Lack of knowledge	
Knows no method	11.3
Knows no source	0.7
Method-related reasons	
Health concerns	3.4
Fear of side effects	10.8
Lack of access/too far	0.3
Costs too much	1.3
Inconvenient to use	0.5
Interfere with body's normal process	1.3
Other	3.1
Don't know	2.2
Total	100.0
Number of women	2,450

5.11 PREFERRED METHOD FOR FUTURE USE

Demand for specific methods can be assessed by asking non-users which method they intend to use in the future. Table 5.12 presents information on method preferences among currently married women who are not using contraception but say they intend to use in the future. Half of women who intend to use contraception in the future say they intend to use injectables, and around one-fourth (24 percent) plan to use the pill. Twelve percent of women intend to use folk methods, 3 percent intend to use female sterilization, and 2 percent intend to use male condoms.

5.12 EXPOSURE TO FAMILY PLANNING MESSAGES

The mass media can be a powerful vehicle for conveying family planning messages. Information about the level of public exposure to a particular type of mass media allows policy-makers to use the most effective type of media for targeting specific groups in the population. To assess the effectiveness of such media on the dissemination of family planning information, all respondents in the SLDHS were asked whether they had heard or seen a family planning message in the past six months on the radio, on television, or in a newspaper or magazine. Women were also asked if they had seen family planning messages on billboards and posters.

Table 5.13 shows that less than half of all women (47 percent) were recently exposed to family planning messages through at least one type of mass media, compared with 54 percent of men. There are large differences in exposure by type of media; for example, radio messages reach 46 percent of women and 54 percent of men, compared with television messages that reach only 6 percent of women and 9 percent of men. Coverage of family planning messages in the print media (newspapers and magazines) is intermediate between radio and television, reaching 6 percent of women and 14 percent of men.

For all three media types, coverage is higher among those in urban areas than in rural areas. For example, women in urban areas are almost twice as likely as those in rural areas to have been exposed to family planning messages on the radio (64 and 36 percent, respectively). Regional differences highlight large differentials in exposure to family planning messages in the media, particularly on the radio, which is widely used in Sierra Leone. Slightly over one-third of women in the Eastern and Southern regions reported exposure to family planning messages on the radio, compared with more than two-thirds (73 percent) of women in the Western Region. Among men, exposure to family planning messages on the radio ranges from 42 percent in the Southern Region to 87 percent in the Western Region. Women and men in the Western Region are the most likely to report exposure to family planning messages on the television (24 and 33 percent, respectively). In the other regions the proportions are 3 percent or less.

For both women and men, there are large differentials in exposure to family planning messages through the media by level of education. For example, 25 percent of women with at least some secondary school say they recently saw a family planning message in a newspaper or magazine, compared with less than 1 percent of those with no education. Similarly, striking differences in exposure to family planning messages occur by wealth quintile. Only 29 percent of women in the lowest wealth quintile heard a family planning message on the radio, compared with 72 percent of those in the highest wealth quintile. Differences are almost equally as strong for the other types of media. Similar patterns are observed for men.

Table 5.12 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, Sierra Leone 2008

Method	Percent
Female sterilization	2.6
Male sterilization	0.1
Pill	24.2
IUD	1.4
Injectables	50.3
Male condom	2.2
Female condom	0.1
Lactation amenorrhoea method (LAM)	0.2
Rhythm	0.4
Withdrawal	0.1
Folkloric method	11.8
Unsure	6.5
Total	100.0
Number of women	1,395

Table 5.13 Exposure to family planning messages

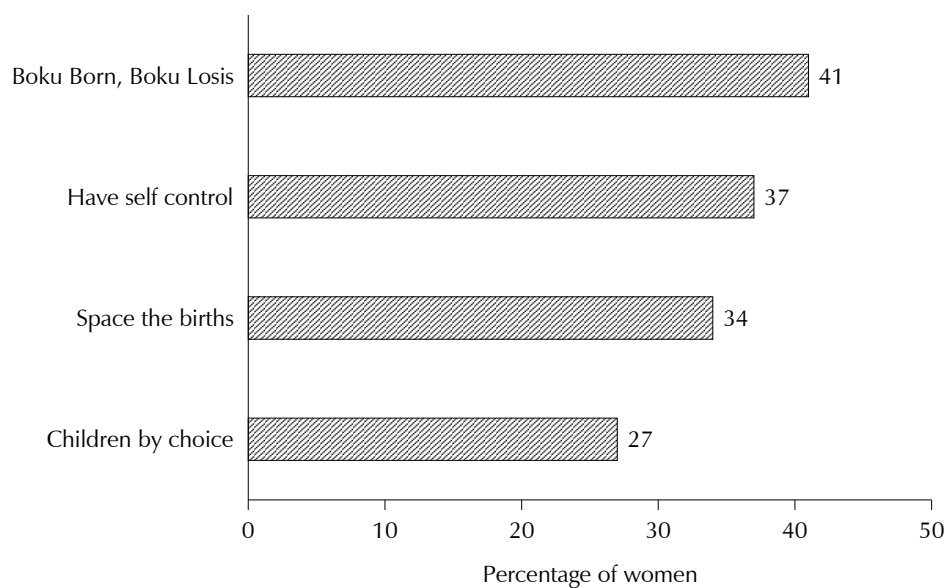
Percentage of women and men age 15-49 who heard or saw a family planning message on radio or television or in a newspaper/magazine in the past few months, according to background characteristics, Sierra Leone 2008

Background characteristic	Women					Men				
	Radio	Television	Newspaper/ magazine	None of the three media	Number of women	Radio	Television	Newspaper/ magazine	None of the three media	Number of men
Age										
15-19	45.1	6.5	8.5	53.7	1,198	42.8	9.5	9.5	56.8	526
20-24	51.4	8.0	8.7	47.8	1,186	53.8	11.3	21.1	44.2	403
25-29	44.5	4.7	4.1	55.2	1,643	56.9	9.9	13.2	42.8	446
30-34	46.8	8.0	5.5	53.0	1,043	53.8	8.6	16.0	45.6	373
35-39	43.7	4.8	4.8	55.9	1,131	56.9	7.8	11.7	42.7	525
40-44	48.4	7.6	7.6	51.1	652	65.6	9.7	22.5	34.0	336
45-49	43.1	5.1	3.7	56.9	520	50.2	5.9	9.6	49.5	335
Residence										
Urban	63.7	15.1	14.5	35.2	2,655	73.7	21.7	32.6	24.8	1,123
Rural	36.3	1.3	1.4	63.5	4,719	41.5	1.2	3.1	58.4	1,822
Region										
Eastern	36.1	1.6	2.0	63.8	1,325	45.2	1.3	5.0	54.5	557
Northern	41.5	1.9	3.0	58.3	3,001	45.9	2.3	5.4	54.0	1,131
Southern	38.2	1.6	2.6	61.5	1,542	42.1	3.3	7.6	57.4	617
Western	72.5	23.8	19.7	25.8	1,506	86.6	33.1	44.8	11.6	639
Education										
No education	35.6	1.9	0.7	64.3	4,860	39.0	1.7	0.9	60.9	1,426
Primary	54.3	5.0	2.8	44.9	960	46.8	5.9	4.6	52.7	414
Secondary or higher	74.2	20.8	25.1	24.2	1,554	75.5	19.6	35.3	23.0	1,104
Wealth quintile										
Lowest	28.9	0.4	0.5	70.8	1,382	28.3	1.4	1.7	71.6	558
Second	34.5	0.5	1.1	65.5	1,368	40.7	1.1	2.0	58.9	520
Middle	35.5	1.3	1.8	63.9	1,428	51.3	0.7	3.2	48.7	530
Fourth	53.2	3.8	4.8	46.6	1,472	60.3	6.3	13.7	39.7	597
Highest	72.0	21.8	19.4	26.6	1,723	78.7	28.4	41.2	19.1	739
Total 15-49	46.2	6.3	6.1	53.3	7,374	53.8	9.0	14.4	45.6	2,944
50-59	na	na	na	na	na	48.4	8.0	10.6	51.6	336
Total 15-59	na	na	na	na	na	53.2	8.9	14.0	46.2	3,280

na = Not applicable

All women in the 2008 SLDHS were asked if they had seen the following specific family planning messages on billboards and posters in the past 12 months: 'Boku Born, Boku Losis'; 'Have self control, value your body, respect yourself, avoid teenage pregnancy'; 'Space the birth of your children,' and 'Children by choice, not by chance'. Figure 5.3 shows that, overall, less than half of all women (47 percent) have been exposed to at least one of these family planning messages during the past year (data not shown). The most frequently cited message is 'Boku Born, Boku Losis' (41 percent), followed by 'Have self control, value your body, respect yourself, avoid teenage pregnancy' (37 percent) and 'Space the birth of your children' (34 percent) messages. The least known message is 'Children by choice, not by chance' (27 percent). Fifty-three percent of women reported that they had seen none of these messages (data not shown).

Figure 5.3 Exposure to Specific Family Planning Messages



Sierra Leone, 2008

5.13 CONTACT OF NON-USERS WITH FAMILY PLANNING PROVIDERS

In the 2008 SLDHS, women who were not using any family planning method were asked if they had visited a health facility in the past 12 months to obtain care for themselves or their children and, if so, whether any health worker at the facility spoke to them about family planning. These questions can assess the level of so-called ‘missed opportunities’ to inform women about contraception.

The results shown in Table 5.14 indicate that only 14 percent of non-users visited a health facility where someone discussed family planning with them. Less than one in ten (7 percent) non-users discussed family planning with a health worker outside of a health facility, when the fieldworker visited them at home. These results imply that the majority of women (83 percent) who were not using a method of contraception had no discussion about family planning with a health professional during the 12 months preceding the survey, neither inside nor outside of a health facility, and 23 percent visited a facility in which no one discussed family planning with them.

Table 5.14 Contact of non-users 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 with someone at a health facility, by background characteristics, Sierra Leone 2008

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 with someone at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	4.0	8.4	17.3	89.4	1,098
20-24	8.5	16.5	26.7	79.1	1,039
25-29	8.0	18.3	23.2	78.4	1,490
30-34	6.9	14.3	26.4	81.7	930
35-39	6.0	13.6	22.7	83.5	1,001
40-44	6.0	9.1	21.8	87.0	577
45-49	7.4	7.4	21.8	88.0	487
Residence					
Urban	7.6	13.6	24.7	82.2	2,168
Rural	6.3	13.4	22.1	83.4	4,452
Region					
Eastern	6.2	11.3	30.1	85.1	1,238
Northern	5.9	14.4	17.6	83.5	2,823
Southern	7.9	13.4	24.6	81.9	1,391
Western	8.0	13.6	26.1	81.2	1,168
Education					
No education	5.7	13.0	21.9	84.1	4,576
Primary	9.0	16.2	25.6	79.6	854
Secondary or higher	9.3	13.5	24.8	81.3	1,191
Wealth quintile					
Lowest	5.6	10.6	22.5	87.0	1,317
Second	6.6	13.5	23.9	83.3	1,318
Middle	6.2	15.2	19.3	81.5	1,351
Fourth	8.0	16.2	22.3	79.6	1,292
Highest	7.4	11.9	26.5	83.7	1,343
Total	6.7	13.5	22.9	83.0	6,620

5.14 HUSBAND/PARTNER'S KNOWLEDGE OF WOMEN'S CONTRACEPTIVE USE

Use of family planning methods is facilitated when couples discuss and agree on the issue. To assess the extent to which women use contraception without telling their partners, the 2008 SLDHS asked currently married women whether their husband/partner knew that they were using a method of family planning.

Table 5.15 shows that nearly two-thirds (64 percent) of women reported that their husband or partner knows about their use of contraception, while about one-fifth (19 percent) said that their husband/partner did not know. Seventeen percent of married women using contraception said that they were not sure whether their spouse knows about their use of family planning.

Table 5.15 Husband/partner's knowledge of women's use of contraception					
Percent distribution of currently married women age 15-49 who are using a method of contraception by whether their husband/partner knows about their use of contraception, according to background characteristics, Sierra Leone 2008					
Background characteristic	Husband/partner's knowledge of women's use of contraception			Total	Number of women
	Knows ¹	Does not know	Unsure whether knows/missing		
Age					
15-19	*	*	*	100.0	4
20-24	61.9	24.0	14.1	100.0	44
25-29	70.4	13.8	15.7	100.0	110
30-34	63.5	23.5	13.0	100.0	88
35-39	59.6	16.1	24.3	100.0	111
40-44	63.9	27.2	8.9	100.0	67
45-49	(60.6)	(14.4)	(24.9)	100.0	28
Residence					
Urban	66.6	16.1	17.3	100.0	254
Rural	59.6	23.0	17.4	100.0	200
Region					
Eastern	65.1	21.4	13.5	100.0	63
Northern	67.8	19.8	12.5	100.0	107
Southern	55.2	24.7	20.1	100.0	102
Western	65.1	14.9	20.0	100.0	181
Education					
No education	57.2	23.8	19.1	100.0	245
Primary	61.8	18.9	19.3	100.0	65
Secondary or higher	75.1	11.4	13.5	100.0	144
Wealth quintile					
Lowest	52.9	21.7	25.4	100.0	52
Second	(62.9)	(28.4)	(8.7)	100.0	40
Middle	56.9	25.0	18.1	100.0	54
Fourth	63.0	23.1	13.9	100.0	112
Highest	68.6	12.7	18.7	100.0	195
Total	63.5	19.1	17.3	100.0	453

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

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

Communication about use of family planning appears to be somewhat better among urban couples than rural couples. A smaller proportion of rural women than urban women reported that their husband or partner was aware of their use of a contraceptive method (60 percent, compared with 67 percent). Similarly, a smaller proportion of women in the Southern Region (55 percent) reported that their spouse is aware of their use of contraception, compared with women in other regions (65 to 68 percent). In general, women with more education and those in the higher wealth quintiles are more likely than other women to say that their husband/partner knows that they are using a contraceptive method.

5.15 MEN'S ATTITUDES TOWARDS CONTRACEPTION

The 2008 SLDHS assessed men's attitudes toward contraception by asking male respondents whether they agreed or disagreed with two statements about family planning use: 1) contraception is women's business and a man should not have to worry about it; and 2) women who use contraception may become promiscuous. This information is useful in formulating family planning programmes and policies targeted toward men because they play a key role in women's reproductive health. Men's attitudes towards family planning and specific contraceptive methods are important in developing educational activities designed to address some of their misconceptions and fears. The results are shown in Table 5.16.

Overall, men in Sierra Leone think they should take some responsibility regarding family planning, with slightly over half (58 percent) rejecting the statement that contraception is a woman's business and men should not have to worry about it. However, more than one-fifth (22 percent) of men agree with the statement, and around one-fifth (19 percent) say they don't know.

Older men and those with at least some secondary education are more likely than other men to disagree with the statement that contraception is only a woman's business. Similarly, urban men (64 percent) and those in the Western Region (67 percent) are more likely to disagree with the statement than men in rural areas or in other regions. The proportion of men who do not think that women alone should deal with family planning increases steadily as wealth quintile increases.

With regard to the statement that women who use contraception may become promiscuous, almost one-third (32 percent) of men reject the statement; however, more than four in ten (42 percent) agree that women who use contraception may become promiscuous.

Table 5.16 Male attitudes towards contraceptive use

Percent distribution of men age 15-49 by two common attitudes regarding women's use of contraception: 'Contraception is women's business' and 'Women who use contraception may become promiscuous,' and by whether the man agrees with the attitudes, according to background characteristics, Sierra Leone 2008

Background characteristic	Contraception is women's business					Women who use contraception may become promiscuous					Number of men
	Agree	Disagree	Don't know	Missing	Total	Agree	Disagree	Don't know	Missing	Total	
Age											
15-19	14.9	40.8	44.2	0.1	100.0	24.3	26.6	48.9	0.2	100.0	526
20-24	19.5	58.6	21.9	0.0	100.0	40.8	29.8	29.4	0.0	100.0	403
25-29	24.2	61.5	14.3	0.0	100.0	49.1	32.9	17.8	0.1	100.0	446
30-34	25.0	60.8	14.2	0.0	100.0	45.0	33.9	20.9	0.2	100.0	373
35-39	25.7	60.8	13.2	0.3	100.0	44.1	32.2	23.4	0.3	100.0	525
40-44	26.1	67.5	6.1	0.3	100.0	46.9	38.0	15.0	0.1	100.0	336
45-49	22.0	65.5	11.2	1.3	100.0	46.6	34.0	17.9	1.5	100.0	335
Residence											
Urban	20.8	64.2	14.9	0.1	100.0	37.0	42.3	20.5	0.2	100.0	1,123
Rural	23.1	54.8	21.8	0.3	100.0	44.5	25.7	29.4	0.4	100.0	1,822
Region											
Eastern	27.4	57.5	15.0	0.1	100.0	42.1	31.7	26.2	0.1	100.0	557
Northern	17.8	58.3	23.3	0.6	100.0	46.2	23.4	29.7	0.7	100.0	1,131
Southern	24.9	50.3	24.8	0.0	100.0	33.6	34.0	32.2	0.2	100.0	617
Western	23.1	66.9	10.0	0.0	100.0	40.8	45.8	13.4	0.0	100.0	639
Education											
No education	25.1	55.4	19.4	0.2	100.0	44.6	27.9	27.2	0.3	100.0	1,426
Primary	21.6	42.6	34.8	0.9	100.0	36.3	21.2	41.6	0.9	100.0	414
Secondary or higher	18.8	68.1	13.1	0.1	100.0	39.7	41.5	18.7	0.1	100.0	1,104
Wealth quintile											
Lowest	25.3	49.6	25.0	0.1	100.0	39.6	28.4	31.9	0.0	100.0	558
Second	24.7	54.5	20.4	0.4	100.0	48.1	22.0	29.4	0.5	100.0	520
Middle	21.3	56.6	21.6	0.4	100.0	44.5	26.6	28.5	0.5	100.0	530
Fourth	21.1	60.8	17.8	0.2	100.0	39.1	35.3	25.1	0.5	100.0	597
Highest	19.8	66.9	13.2	0.1	100.0	38.5	43.1	18.3	0.1	100.0	739
Total 15-49	22.2	58.3	19.2	0.2	100.0	41.6	32.0	26.0	0.3	100.0	2,944

PROXIMATE DETERMINANTS OF FERTILITY

Fertility levels in most populations can be affected by a number of factors that define a woman's risk of becoming pregnant. These factors are marriage, sexual intercourse, postpartum amenorrhoea and abstinence from sexual relations, onset of menopause, and contraceptive use. This chapter addresses all of these determinants of a woman's fertility except for contraception.

Marriage is a principal indicator of women's exposure to risk of pregnancy. Early age at marriage is usually associated with a longer period of exposure to the risk of pregnancy and higher fertility levels. The duration of postpartum amenorrhoea and postpartum abstinence that affect the length of time a woman is insusceptible to pregnancy determine birth spacing. Finally, the onset of menopause marks the end of a woman's reproductive life.

These factors taken together determine the length and pace of reproduction and are important in understanding fertility levels and differences.

6.1 CURRENT MARITAL STATUS

The percent distribution of women and men by marital status at the time of the survey is presented in Table 6.1. The categories 'married' and 'living together' when combined are referred to as 'currently married,' while those who are divorced, separated, or widowed are referred to as 'formerly married.'

Overall, 19 percent of women of childbearing age have never been married; 75 percent are either married or living together with a man; and the remaining 6 percent are divorced, separated, or widowed. The low proportion (1 percent) of women age 45-49 who have never been married indicates that marriage is largely universal in Sierra Leone. Divorce and separation (4 percent) are uncommon in Sierra Leone.

Among men age 15-49 interviewed in the 2008 SLDHS, 37 percent have never been married; 60 percent are currently married or living with a woman; and 3 percent are separated, divorced, or widowed. Compared with women, a greater proportion of men have never been married (18 percentage points higher for men), while a somewhat smaller proportion are formerly married (3 percent of men, compared with 6 percent of women). Although women enter into marriage earlier than men, by age 35 a higher proportion of men are in a marital union than women. Women (10 percent) are more likely than men (5 percent) to report living together (informal union).

Table 6.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Sierra Leone 2008

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
WOMEN									
15-19	69.0	23.7	6.2	0.1	0.7	0.2	100.0	29.9	1,198
20-24	28.5	57.6	10.8	0.3	2.1	0.6	100.0	68.4	1,186
25-29	7.2	75.8	11.2	0.9	3.9	1.0	100.0	87.0	1,643
30-34	6.8	76.8	9.4	0.6	4.6	1.8	100.0	86.2	1,043
35-39	1.8	79.3	11.0	0.7	3.6	3.5	100.0	90.3	1,131
40-44	2.6	76.4	11.4	0.3	2.4	7.0	100.0	87.8	652
45-49	1.3	73.9	9.2	0.5	3.0	12.1	100.0	83.0	520
Total	19.0	65.0	9.9	0.5	3.0	2.6	100.0	74.9	7,374
MEN									
15-19	99.1	0.6	0.3	0.0	0.0	0.0	100.0	0.9	526
20-24	78.6	13.8	5.9	0.3	1.4	0.0	100.0	19.7	403
25-29	34.8	55.1	8.2	0.6	0.9	0.4	100.0	63.3	446
30-34	13.2	73.7	8.9	1.8	2.2	0.2	100.0	82.6	373
35-39	3.8	85.1	6.0	0.7	3.9	0.4	100.0	91.1	525
40-44	4.1	85.4	4.8	1.4	3.1	1.3	100.0	90.2	336
45-49	2.6	87.6	5.1	1.2	2.8	0.7	100.0	92.7	335
Total 15-49	36.8	54.6	5.4	0.8	2.0	0.4	100.0	60.0	2,944
50-59	2.5	89.6	2.7	1.7	2.0	1.6	100.0	92.3	336
Total 15-59	33.3	58.1	5.2	0.9	2.0	0.5	100.0	63.3	3,280

6.2 POLYGYNY

Polygyny (the practice of having more than one wife) has implications for the frequency of exposure to sexual activity and, therefore, fertility. The extent of polygyny was measured by asking married women the question, ‘Does your husband/partner have any other wives besides yourself?’ For currently married men, the question was, ‘Do you have one wife or more than one wife?’ If more than one, he was asked, ‘How many wives do you have?’ Table 6.2.1 shows the distribution of women by number of co-wives, and Table 6.2.2 shows the distribution of men by number of wives, according to background characteristics.

Overall, 37 percent of currently married women are in polygynous unions. Older women are more likely to be in polygynous unions than younger women. Polygyny is more prevalent in rural areas (42 percent) than in urban areas (27 percent). The regional distribution shows substantial variation in the prevalence of polygyny, with the Northern Region having the highest proportion (almost half) of women in polygynous unions, and the Western Region having the lowest proportion (18 percent). The proportion of women living in polygynous unions declines as level of education increases. Women with no education and those in the middle and fourth wealth quintiles are more likely to be in polygynous marriages than women in other sub-groups.

Table 6.2.2 shows that 17 percent of men age 15-49 and 20 percent of men age 15-59 have two or more wives. In general, the variations in polygyny among men by background characteristics are similar to those observed for women.

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, Sierra Leone 2008

Background characteristic	Number of co-wives				Total	Number of women
	0	1	2+	Missing		
Age						
15-19	69.3	26.8	2.9	1.0	100.0	359
20-24	69.6	24.9	3.4	2.1	100.0	812
25-29	64.3	26.9	6.8	2.0	100.0	1,429
30-34	58.3	28.6	10.7	2.4	100.0	899
35-39	56.3	29.7	11.7	2.3	100.0	1,022
40-44	53.7	28.9	15.1	2.3	100.0	572
45-49	47.6	31.2	19.1	2.2	100.0	431
Residence						
Urban	70.4	21.9	4.9	2.9	100.0	1,561
Rural	56.7	30.3	11.2	1.8	100.0	3,965
Region						
Eastern	66.3	26.3	6.4	1.0	100.0	1,028
Northern	50.0	35.0	13.6	1.5	100.0	2,434
Southern	65.0	23.6	8.6	2.8	100.0	1,206
Western	77.5	16.0	2.3	4.2	100.0	858
Education						
No education	57.0	30.1	11.0	1.9	100.0	4,280
Primary	66.9	25.9	4.8	2.4	100.0	601
Secondary or higher	78.3	15.2	3.4	3.2	100.0	644
Wealth quintile						
Lowest	62.6	29.8	5.8	1.8	100.0	1,178
Second	57.1	29.4	11.1	2.4	100.0	1,144
Middle	53.7	32.2	12.7	1.5	100.0	1,186
Fourth	55.9	30.1	12.3	1.6	100.0	1,051
Highest	75.6	16.3	4.5	3.6	100.0	967
Total	60.6	27.9	9.4	2.1	100.0	5,525

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, Sierra Leone 2008

Background characteristic	Number of wives		Total	Number of men
	1	2+		
Age				
15-19	*	*	100.0	5
20-24	97.8	2.2	100.0	79
25-29	94.2	5.8	100.0	283
30-34	87.4	12.6	100.0	308
35-39	79.1	20.9	100.0	479
40-44	78.0	22.0	100.0	303
45-49	72.8	27.2	100.0	310
Residence				
Urban	91.5	8.5	100.0	517
Rural	78.9	21.1	100.0	1,250
Region				
Eastern	85.2	14.8	100.0	382
Northern	75.1	24.9	100.0	689
Southern	83.2	16.8	100.0	388
Western	95.4	4.6	100.0	308
Education				
No education	78.1	21.9	100.0	1,081
Primary	83.7	16.3	100.0	203
Secondary or higher	92.2	7.8	100.0	483
Wealth quintile				
Lowest	81.9	18.1	100.0	391
Second	77.1	22.9	100.0	370
Middle	79.0	21.0	100.0	350
Fourth	81.0	19.0	100.0	353
Highest	96.1	3.9	100.0	303
Total 15-49	82.6	17.4	100.0	1,767
50-59	64.9	35.1	100.0	310
Total 15-59	79.9	20.1	100.0	2,077

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

6.3 AGE AT FIRST MARRIAGE

Marriage in Sierra Leonean communities defines the point in a woman's life when childbearing becomes socially acceptable. Women who marry early will have, on average, a longer period of exposure to pregnancy, often leading to a higher number of lifetime births. Information on age at first marriage was obtained by asking respondents the month and year, or age, when they started living with their first husband or wife.

Table 6.3 shows the percentage of women and men who have married by specific ages, according to current age group. Over one-fifth of women age 20-49 are married by age 15, about six in ten are married by age 18 and seven in ten enter marriage by age 20. The median age at first marriage among women age 20-49 is 17.2 years. Women age 20-24 reported the highest age at first marriage (18.2 years), which is about one year later than for women in the other age groups.

Among men age 20-49 years, there are no reported marriages by age 15, and only 9 percent are married by age 18; about one-fifth (19 percent) of men marry by age 20. The median age at first marriage among men age 25-49 years is 24.5 years, 7 years later than the median age for women, indicating a considerable time lag in marriage between women and men in Sierra Leone. The median age at first marriage among men does not vary much by age, but it appears to be somewhat higher among older men age 45-49 (25.8 years).

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, Sierra Leone 2008								
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	10.3	na	na	na	na	69.0	1,198	a
20-24	19.3	47.9	62.2	na	na	28.5	1,186	18.2
25-29	22.4	57.1	71.7	82.1	89.8	7.2	1,643	17.1
30-34	25.4	58.8	71.8	78.6	85.7	6.8	1,043	16.9
35-39	23.3	59.3	70.6	79.7	85.4	1.8	1,131	16.9
40-44	20.3	57.0	71.3	81.7	86.9	2.6	652	17.1
45-49	22.0	57.4	71.0	79.5	84.9	1.3	520	17.2
20-49	22.2	56.0	69.6	na	na	9.3	6,176	17.2
25-49	22.9	57.9	71.3	80.5	87.0	4.7	4,990	17.0
MEN								
15-19	0.0	na	na	na	na	99.1	526	a
20-24	0.0	5.1	11.4	na	na	78.6	403	a
25-29	0.0	9.7	22.2	35.4	53.6	34.8	446	24.4
30-34	0.0	11.6	20.6	38.7	58.5	13.2	373	23.6
35-39	0.0	9.1	22.5	34.9	56.4	3.8	525	24.2
40-44	0.0	8.9	16.8	30.9	51.2	4.1	336	24.8
45-49	0.0	8.9	19.4	29.8	42.4	2.6	335	25.8
20-49	0.0	8.9	19.1	na	na	23.3	2,418	a
25-49	0.0	9.6	20.6	34.2	53.0	12.3	2,016	24.5
20-59	0.0	8.4	18.5	na	na	20.8	2,754	a
25-59	0.0	8.9	19.7	32.9	51.4	10.9	2,351	24.8

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

Table 6.4.1 shows the median age at first marriage for women age 20-49 and age 25-49 by five-year age groups, according to background characteristics. Urban women marry about two years later than their rural counterparts; the difference varies from half a year among women age 35-39 to two and a half years among women age 25-29. As expected, marriage among women in the Western Region (19.6 years) occurs three and a half years later than among women in the Northern Region (16.1 years). Education is positively associated with age at first marriage, largely because women who are more educated spend a longer period of time in school. There is a difference of five years between age at first marriage among women with no education (16.4 years) and age at first marriage among women with secondary or higher education (21.4 years). Wealth appears to have no major effect on age at first marriage, except for women in the highest quintile, who have a much higher age at first marriage (19.4 years) than women in other wealth quintiles (16.3 to 16.9 years).

Much of the variation in age at first marriage among women is also seen among men, especially when comparing five-year age groups, with men in the younger age groups marrying earlier than those in the older age groups. Men in rural areas marry at a somewhat younger age than men in urban areas, although the difference is not as pronounced as among women. Men in the Western Region have the highest age at first marriage, while men in the Northern Region have the lowest age at first marriage. There is a positive correlation between median age at marriage and level of education. For example, among men age 45-49, the difference in the age at first marriage between men with no education (25.4 years) and those with secondary or higher education (27.6 years) is more than two years.

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, Sierra Leone 2008								
Background characteristic	Age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	19.0	18.7	17.2	18.6	18.3	18.9	18.4
Rural	16.6	16.4	16.0	16.7	16.6	16.8	16.5	16.5
Region								
Eastern	18.3	17.1	17.2	17.2	16.6	17.3	17.3	17.1
Northern	16.7	16.1	15.9	16.2	16.3	16.4	16.2	16.1
Southern	16.9	16.9	16.4	17.5	17.6	17.8	17.1	17.1
Western	a	21.4	19.8	17.6	18.9	18.9	a	19.6
Education								
No education	16.5	16.6	16.1	16.2	16.6	16.8	16.4	16.4
Primary	17.7	17.9	17.5	18.3	17.0	17.9	17.8	17.8
Secondary or higher	a	22.8	22.8	19.0	21.2	20.7	a	21.4
Wealth quintile								
Lowest	16.9	16.8	16.0	16.8	17.0	16.6	16.6	16.6
Second	16.5	16.1	16.5	17.0	16.4	17.4	16.5	16.6
Middle	16.0	16.3	16.0	16.3	16.0	16.9	16.2	16.3
Fourth	18.4	17.4	16.3	16.9	17.5	16.5	17.3	16.9
Highest	n	20.4	20.0	17.7	19.5	18.7	a	19.4
Total	18.2	17.1	16.9	16.9	17.1	17.2	17.2	17.0

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 married for the first time before reaching the beginning of the age group

Table 6.4.2 Median age at first marriage: Men

Median age at first marriage among men by five-year age groups, age 25-49 and age 25-59, according to background characteristics, Sierra Leone 2008

Background characteristic	Age						Men age 25-49	Men age 25-59
	25-29	30-34	35-39	40-44	45-49	50-59		
Residence								
Urban	a	25.5	24.6	25.1	27.3	25.9	a	a
Rural	22.9	22.7	24.0	24.7	25.5	25.8	23.8	24.2
Region								
Eastern	22.4	24.5	24.1	25.2	26.0	24.9	24.4	24.5
Northern	23.6	22.3	23.2	23.1	25.1	25.4	23.2	23.6
Southern	24.7	23.0	24.4	24.6	27.7	29.5	24.6	a
Western	a	26.4	26.1	26.2	28.6	24.6	a	a
Education								
No education	22.7	22.7	23.9	24.9	25.4	25.8	23.8	24.2
Primary	24.2	24.2	23.9	25.6	25.7	27.0	24.5	24.8
Secondary or higher	a	25.6	24.9	24.6	27.6	24.9	a	a
Wealth quintile								
Lowest	23.8	23.1	25.0	25.9	25.9	27.0	24.9	a
Second	23.0	22.5	23.7	23.6	25.3	27.2	23.4	24.0
Middle	21.9	22.9	23.2	24.1	25.7	25.4	23.2	23.6
Fourth	a	23.6	23.9	24.7	25.8	23.9	24.7	24.7
Highest	a	26.0	25.8	25.7	28.5	24.7	a	a
Total	24.4	23.6	24.2	24.8	25.8	25.8	24.5	24.8

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 married for the first time before reaching the beginning of the age group

6.4 AGE AT FIRST SEXUAL INTERCOURSE

Although age at marriage is often used as a proxy for first exposure to intercourse and the beginning of exposure to the risk of pregnancy, some women engage in sexual activity before marriage. The 2008 SLDHS gathered information on the timing of first sexual intercourse for both men and women, irrespective of marital status. Table 6.5 shows the proportion of women and men who had first sexual intercourse by specific ages.

Twenty-seven percent of women age 20-49 had sexual intercourse by age 15, more than two-thirds were sexually active by age 18, and almost eight in ten women had experienced intercourse by age 20. The median age at first sexual intercourse among women age 20-49 is 16.1 years, which is more than one year below the median age at first marriage (17.2 years), suggesting that Sierra Leonean women generally have first sexual intercourse before their first marriage. Median age at first sexual intercourse does not vary much by women's age.

Overall, 8 percent of men age 20-49 had sexual intercourse by age 15, 39 percent by age 18, and 64 percent by age 20. The median age at first sexual intercourse among men age 20-49 (18.6 years) is two and a half years higher than the median age among women the same age (16.1 years). The median age at first sexual intercourse among men age 25-49 (18.7 years) is almost six years below the median age at first marriage (24.5 years), indicating that many Sierra Leonean men initiate sexual intercourse before marriage.

Tables 6.6.1 and 6.6.2 show the median age at first sex by background characteristics for women and men. Women age 25-49 in rural areas begin sexual activity about one year earlier than their urban counterparts (15.8 years, compared with 16.9 years). Sexual activity among women begins earliest in the Northern Region (15.8 years) and latest in the Western Region (17.2 years). With respect to education, women with secondary or higher education begin sexual activity more than two years later (18.1 years) than those with no education (15.8 years). Likewise, women in the highest wealth quintile begin sexual activity about two years later (17.5 years) than women in the other wealth quintiles (15.7 to 16.0 years).

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, Sierra Leone 2008

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	22.3	na	na	na	na	34.6	1,198	a
20-24	26.8	66.8	83.0	na	na	4.5	1,186	16.2
25-29	29.2	69.7	81.3	86.4	88.5	0.4	1,643	16.0
30-34	27.9	67.6	80.1	84.2	85.4	0.0	1,043	16.0
35-39	27.0	68.2	79.3	83.6	84.8	0.0	1,131	16.1
40-44	24.2	61.9	73.8	81.6	82.9	0.0	652	16.5
45-49	27.1	64.5	76.1	81.8	83.0	0.0	520	16.3
20-49	27.4	67.2	79.8	na	na	1.0	6,176	16.1
25-49	27.6	67.4	79.1	84.2	85.7	0.1	4,990	16.1
15-24	24.6	na	na	na	na	19.6	2,384	a
MEN								
15-19	11.4	na	na	na	na	57.1	526	a
20-24	10.5	44.8	70.8	na	na	14.9	403	18.3
25-29	8.8	43.4	69.1	87.0	91.2	4.0	446	18.4
30-34	8.2	42.6	68.1	86.9	91.6	0.0	373	18.5
35-39	7.9	40.7	65.1	82.8	89.6	0.0	525	18.6
40-44	4.5	30.8	57.4	78.7	85.5	0.9	336	18.9
45-49	4.3	29.2	52.2	76.7	83.0	0.5	335	19.7
20-49	7.6	39.2	64.4	na	na	3.4	2,418	18.6
25-49	7.0	38.1	63.1	82.8	88.6	1.1	2,016	18.7
15-24	11.0	na	na	na	na	38.8	929	a
20-59	7.1	37.5	62.2	na	na	3.0	2,754	18.8
25-59	6.6	36.3	60.7	80.5	86.8	1.0	2,351	18.9

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

Table 6.6.1 Median age at first 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, Sierra Leone 2008

Background characteristic	Age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	17.3	16.7	17.2	16.5	18.1	16.9	17.0	16.9
Rural	15.6	15.7	15.7	15.9	15.9	16.0	15.8	15.8
Region								
Eastern	15.8	15.9	16.4	16.0	16.1	16.5	16.0	16.1
Northern	15.7	15.7	15.6	16.0	15.9	16.0	15.8	15.8
Southern	16.0	15.9	15.9	16.0	16.8	16.5	16.0	16.0
Western	17.7	17.0	17.7	16.6	18.1	16.7	17.3	17.2
Education								
No education	15.7	15.7	15.7	15.8	16.0	16.0	15.8	15.8
Primary	15.5	16.2	16.7	16.9	16.9	16.8	16.3	16.7
Secondary or higher	18.2	18.0	18.1	17.8	18.8	18.3	18.2	18.1
Wealth quintile								
Lowest	15.8	15.7	15.6	15.8	15.8	16.0	15.7	15.7
Second	15.7	15.8	15.9	16.1	16.0	16.0	15.9	15.9
Middle	15.5	15.7	15.9	15.8	15.9	16.4	15.8	15.8
Fourth	16.0	15.9	15.7	16.3	17.1	15.9	16.0	16.0
Highest	17.8	17.3	17.7	16.9	18.2	17.9	17.6	17.5
Total	16.2	16.0	16.0	16.1	16.5	16.3	16.1	16.1

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

The data for men on median age at first intercourse show a different pattern from that observed for women, with almost no difference in the timing of first sexual activity between men in rural areas and those in urban areas. The lowest median age at first sexual intercourse among men age 25-49 is in the Southern Region (18.2 years) and the highest is in the Eastern and Northern regions (19 years each). No definite pattern is seen in the median age at first intercourse among men by level of education or wealth quintile.

Table 6.6.2 Median age at first intercourse: Men

Median age at first sexual intercourse among men by five-year age groups, age 20-59, age 25-49 and age 25-59, according to background characteristics, Sierra Leone 2008

Background characteristic	Age							Men age 20-59	Men age 25-49	Men age 25-59
	20-24	25-29	30-34	35-39	40-44	45-49	50-59			
Residence										
Urban	18.1	18.4	18.3	18.4	18.7	19.5	20.4	18.6	18.6	18.8
Rural	18.5	18.4	18.5	18.8	19.4	20.0	20.1	18.9	18.8	18.9
Region										
Eastern	18.9	18.5	18.8	19.3	19.5	19.8	20.3	19.1	19.0	19.1
Northern	18.6	18.7	18.7	18.7	19.7	20.0	20.3	19.1	19.0	19.3
Southern	17.6	18.0	17.8	18.1	18.3	19.2	19.0	18.3	18.2	18.4
Western	17.8	18.1	17.9	18.0	18.7	19.3	20.9	18.4	18.4	18.6
Education										
No education	18.2	18.4	18.6	18.3	19.8	19.8	20.2	18.8	18.7	18.9
Primary	18.7	18.1	18.6	18.2	19.2	19.1	20.4	18.8	18.6	18.8
Secondary or higher	18.3	18.4	18.1	19.3	18.7	19.7	19.9	18.7	18.7	18.8
Wealth quintile										
Lowest	17.6	18.0	18.6	19.1	19.4	19.2	19.9	18.8	18.8	18.9
Second	19.5	18.7	18.8	18.1	20.1	20.3	20.4	19.1	18.9	19.0
Middle	18.1	18.3	18.1	19.2	19.1	19.2	19.9	18.7	18.7	18.8
Fourth	18.3	18.5	19.0	18.6	18.8	19.6	20.6	18.8	18.8	18.9
Highest	18.2	18.5	18.1	18.4	18.6	19.8	20.2	18.5	18.6	18.7
Total	18.3	18.4	18.5	18.6	18.9	19.7	20.2	18.8	18.7	18.9

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

6.5 RECENT SEXUAL ACTIVITY

In the absence of contraception, the chances of becoming pregnant are related to the frequency of sexual intercourse. Thus, the information on sexual activity can be used to refine measures of exposure to pregnancy. All women and men were asked how long ago their last sexual intercourse occurred. Tables 6.7.1 and 6.7.2 show the percent distribution of women and men, respectively, by timing of last sexual intercourse, according to background characteristics.

Forty-seven percent of women age 15-49 and 54 percent of men age 15-49 had sexual intercourse in the four weeks before the survey; 24 percent of women and 22 percent of men had been sexually active in the year before the survey but not in the month before to the interview; and 19 percent of women and 7 percent of men had not been sexually active for one or more years. A total of 6 percent of women and 13 percent of men reported that they had never had sexual intercourse.

The proportion of women who were sexually active during the four weeks preceding the survey increases with age, from 30 percent among women age 15-19 to 57 percent among women age 40-44, and then decreases to 48 percent at age 45-49. As expected, women currently in union were much more likely to be sexually active in the four weeks preceding the survey than women who were formerly married or have never been married. Differences among women in the level of recent sexual activity by marital duration, residence, region, level of education, and wealth quintile are generally small; the largest differential is observed between women residing in the Southern Region (53 percent) and those in the Northern Region (42 percent).

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, Sierra Leone 2008

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of women
	Within the past 4 weeks	Within 1 year ¹	One or more years ago	Missing			
Age							
15-19	29.5	23.1	11.3	1.5	34.6	100.0	1,198
20-24	46.2	25.9	21.3	2.0	4.5	100.0	1,186
25-29	48.6	25.5	21.2	4.2	0.4	100.0	1,643
30-34	49.5	25.4	19.7	5.4	0.0	100.0	1,043
35-39	53.0	22.2	19.9	4.9	0.0	100.0	1,131
40-44	56.8	19.9	18.9	4.4	0.0	100.0	652
45-49	48.1	21.2	24.2	6.4	0.0	100.0	520
Marital status							
Never married	31.7	23.9	9.0	1.4	34.0	100.0	1,399
Married or living together	52.2	23.5	19.9	4.3	0.0	100.0	5,525
Divorced/separated/ widowed	24.1	27.9	42.0	6.0	0.0	100.0	450
Marital duration²							
Married only once	51.2	23.5	20.7	4.5	0.0	100.0	4,219
0-4 years	45.6	28.1	22.6	3.7	0.0	100.0	905
5-9 years	51.4	21.4	23.7	3.6	0.0	100.0	1,051
10-14 years	52.2	24.1	19.0	4.8	0.0	100.0	851
15-19 years	52.1	23.5	18.9	5.4	0.0	100.0	637
20-24 years	54.9	20.2	19.4	5.6	0.0	100.0	430
25+ years	56.7	21.2	16.1	5.9	0.0	100.0	346
Married more than once	55.5	23.5	17.3	3.7	0.0	100.0	1,306
Residence							
Urban	47.2	25.7	13.9	3.0	10.2	100.0	2,655
Rural	46.3	22.8	22.2	4.4	4.3	100.0	4,719
Region							
Eastern	48.2	26.6	16.4	3.0	5.8	100.0	1,325
Northern	41.9	23.2	25.0	5.0	4.9	100.0	3,001
Southern	53.4	20.1	18.1	2.8	5.5	100.0	1,542
Western	47.6	26.7	11.3	3.5	11.0	100.0	1,506
Education							
No education	48.4	22.8	22.3	4.4	2.1	100.0	4,860
Primary	41.4	23.8	17.9	3.3	13.6	100.0	960
Secondary or higher	44.2	27.4	10.4	2.5	15.5	100.0	1,554
Wealth quintile							
Lowest	46.1	22.4	22.1	4.9	4.4	100.0	1,382
Second	43.7	24.1	24.1	4.2	3.8	100.0	1,368
Middle	46.5	23.0	21.5	4.5	4.5	100.0	1,428
Fourth	46.4	24.2	20.4	2.9	6.2	100.0	1,472
Highest	49.5	25.3	10.1	3.1	11.9	100.0	1,723
Total	46.6	23.9	19.2	3.9	6.4	100.0	7,374

¹ Excludes women who had sexual intercourse within the past 4 weeks² Excludes women who are not currently married

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, Sierra Leone 2008

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of men
	Within the past 4 weeks	Within 1 year ¹	One or more years ago	Missing			
Age							
15-19	16.3	20.2	6.5	0.0	57.1	100.0	526
20-24	44.8	30.0	8.0	2.3	14.9	100.0	403
25-29	58.5	24.6	5.3	7.6	4.0	100.0	446
30-34	67.1	19.2	7.0	6.7	0.0	100.0	373
35-39	68.4	19.9	5.9	5.8	0.0	100.0	525
40-44	65.4	18.3	7.6	7.8	0.9	100.0	336
45-49	67.3	19.0	6.6	6.5	0.5	100.0	335
Marital status							
Never married	32.4	24.1	6.7	1.6	35.3	100.0	1,085
Married or living together	66.8	19.8	6.5	6.9	0.0	100.0	1,767
Divorced/separated/ widowed	55.1	30.0	7.9	6.9	0.0	100.0	92
Marital duration²							
Married only once	67.4	19.0	6.5	7.2	0.0	100.0	1,324
0-4 years	64.4	20.2	6.8	8.6	0.0	100.0	266
5-9 years	62.7	23.6	7.6	6.1	0.0	100.0	333
10-14 years	69.1	16.8	7.2	7.0	0.0	100.0	331
15-19 years	67.9	20.0	5.8	6.4	0.0	100.0	220
20-24 years	74.8	11.6	3.3	10.3	0.0	100.0	107
25+ years	80.3	10.9	3.0	5.8	0.0	100.0	67
Married more than once	65.1	22.1	6.6	6.2	0.0	100.0	443
Residence							
Urban	49.6	25.5	5.6	4.7	14.6	100.0	1,123
Rural	56.3	19.3	7.2	5.2	12.1	100.0	1,822
Region							
Eastern	55.4	21.4	8.1	4.1	11.0	100.0	557
Northern	50.6	20.8	6.5	5.5	16.6	100.0	1,131
Southern	63.5	14.4	4.4	5.8	11.9	100.0	617
Western	48.5	30.5	7.4	4.0	9.5	100.0	639
Education							
No education	60.3	19.5	7.5	6.1	6.6	100.0	1,426
Primary	47.4	17.2	4.4	3.7	27.4	100.0	414
Secondary or higher	47.7	26.1	6.3	4.0	15.9	100.0	1,104
Wealth quintile							
Lowest	57.1	18.5	8.6	5.0	10.7	100.0	558
Second	56.0	19.7	6.4	5.8	12.1	100.0	520
Middle	58.5	17.9	6.8	4.0	12.7	100.0	530
Fourth	53.3	21.4	5.7	6.1	13.5	100.0	597
Highest	46.6	28.3	5.8	4.1	15.2	100.0	739
Total 15-49	53.7	21.7	6.6	5.0	13.0	100.0	2,944
50-59	63.9	19.9	8.1	7.8	0.3	100.0	336
Total 15-59	54.8	21.5	6.7	5.3	11.7	100.0	3,280

¹ Excludes men who had sexual intercourse within the past 4 weeks
² Excludes men who are not currently married

The proportion of men who were sexually active in the four weeks preceding the survey is higher than the proportion of women (54 percent, compared with 47 percent). The likelihood of recent sexual activity increases with age, peaking at 68 percent among men age 35-39. As with women, men who are currently in union are more likely to have been sexually active in the past four weeks than those who are not in union. Men who have been married for 20 years or more are more likely to have had recent sexual intercourse than those married for shorter durations. Men in urban areas are less likely to have had sexual intercourse in the recent past than those in rural areas (50 and 56 percent, respectively).

The largest differentials in recent sexual activity are observed by region; 49 percent of men in the Western Region reported that they had had sexual intercourse in the four weeks preceding the survey, compared with 64 percent of men in the Southern Region. Men with no education are more likely to have had sexual intercourse recently than men with primary education or secondary or higher

education. By wealth quintile, recent sexual activity is lowest among men in the highest (richest) wealth quintile (47 percent); proportions for the other wealth quintiles range from 53 to 59 percent.

6.6 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhoea is defined as the period between childbirth and the return of ovulation, generally approximated by the resumption of menstruation following childbirth. This period is largely determined by the duration and intensity of breastfeeding. The risk of conception during this period is low. The duration of postpartum amenorrhoea and sexual abstinence following a birth jointly determine the length of the period of insusceptibility. Thus, women are considered insusceptible to the risk of pregnancy if they are amenorrhoeic and/or abstaining from sex following childbirth.

Women who gave birth three years preceding the survey were asked about the duration of their amenorrhoea and sexual abstinence following each birth. Table 6.8 shows the percentage of births in the three years preceding the survey for which mothers were still postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since the birth. The results show that Sierra Leonean women are amenorrhoeic for a median of 10.8 months; they abstain from sexual intercourse for a median of 18.9 months, and they are insusceptible to pregnancy for a median of 19.2 months. In general, the proportion of women who are amenorrhoeic or abstaining decreases as time since the birth increases. The proportion of women who are amenorrhoeic drops from 85 percent in the first two months after the birth, to 38 percent at 12-13 months, and finally to 5 percent at 28-29 months after the birth. Almost all Sierra Leonean women (95 percent) abstain from sex during the first two months after a birth.

Table 6.9 shows the median duration of postpartum amenorrhoea, abstinence, and insusceptibility by background characteristics. Younger women (under age 30) have a slightly longer median period of insusceptibility, mainly because of their longer duration of postpartum abstinence. Women living in urban areas have a shorter median duration of postpartum amenorrhoea than rural women, and a shorter median duration of postpartum abstinence; thus, their period of insusceptibility is shorter than that of rural women. There are slight variations by regions in the period of insusceptibility, with the longest period observed in the Northern Region (21.5 months) and the shortest period in the Southern Region (16.5 months).

There is an inverse relationship between level of education and postpartum insusceptibility. The duration of postpartum insusceptibility is the longest among women with no education (19.6 months) and shortest among women with secondary or higher education (16.4 months). Similarly, the median duration of postpartum insusceptibility is longest among women in the four lowest wealth quintiles (18.5 to 20.3 months) and shortest among women in the highest wealth quintile (17.9 months).

Table 6.8 Postpartum amenorrhoea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Sierra Leone 2008

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible ¹	
<2	84.5	94.9	96.1	185
2-3	80.0	92.1	94.9	295
4-5	73.2	89.7	92.9	255
6-7	69.1	84.3	89.6	218
8-9	61.4	80.3	83.7	237
10-11	54.5	83.3	86.8	214
12-13	38.2	71.8	75.3	240
14-15	36.0	68.8	72.1	247
16-17	30.1	69.1	70.5	201
18-19	14.0	43.0	46.8	158
20-21	9.9	42.9	43.3	138
22-23	11.4	25.8	28.7	140
24-25	6.8	18.0	21.0	248
26-27	10.3	17.1	21.1	251
28-29	4.7	16.0	17.7	175
30-31	2.1	8.1	8.1	123
32-33	3.5	5.1	8.6	120
34-35	1.1	3.7	4.2	125
Total	37.6	56.3	59.1	3,569
Median	10.8	18.9	19.2	na
Mean	12.1	18.6	19.5	na

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

na = Not applicable

¹ Includes births for which mothers are still amenorrhoeic or still abstaining (or both) following the birth

Table 6.9 Median duration of amenorrhoea, postpartum abstinence and postpartum insusceptibility

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Sierra Leone 2008

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility ¹
Mother's age			
15-29	9.7	19.1	19.3
30-49	12.3	18.5	18.8
Residence			
Urban	8.6	18.7	18.8
Rural	11.7	19.1	19.4
Region			
Eastern	10.0	18.4	18.7
Northern	12.6	21.1	21.5
Southern	11.4	15.6	16.5
Western	6.7	18.7	18.7
Mother's education			
No education	11.6	19.3	19.6
Primary	10.7	18.4	18.7
Secondary or higher	8.1	16.0	16.4
Wealth quintile			
Lowest	10.8	18.4	19.0
Second	11.5	20.0	20.3
Middle	11.3	19.0	19.3
Fourth	10.2	18.5	18.5
Highest	7.7	17.8	17.9
Total	10.8	18.9	19.2

Note: Medians are based on the status at the time of the survey (current status).
¹ Includes births for which mothers are still amenorrhoeic or still abstaining (or both) following the birth

6.7 MENOPAUSE

The risk of becoming pregnant declines with age. The term infecundity denotes a process rather than a well-defined event, and although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. Table 6.10 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 and over.

In the context of the available survey data, women are considered menopausal if they are neither pregnant nor postpartum amenorrhoeic and have not had a menstrual period for at least six months preceding the survey. The proportion of women who are menopausal increases with age from 4 percent among women age 30-34, to 57 percent among women age 48-49. Overall, 13 percent of women age 30-49 in Sierra Leone are menopausal.

Table 6.10 Menopause

Percentage of women age 30-49 who are menopausal, by age, Sierra Leone 2008

Age	Percentage menopausal ¹	Number of women
30-34	3.7	1,043
35-39	5.1	1,131
40-41	12.9	399
42-43	23.5	174
44-45	31.6	335
46-47	33.5	123
48-49	57.2	142
Total	12.5	3,346

¹ Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey

Information on fertility preferences is important for family planning programmes because it allows an assessment of the need for contraception, whether for spacing or limiting births, the extent of unwanted mistimed pregnancies, and the overall attitudes of women towards childbearing. Data on fertility preferences can also be a useful indicator of the future direction of fertility.

In the 2008 Sierra Leone Demographic and Health Survey (SLDHS) currently married women and men were asked about their fertility preferences, including their desire to have another child, the length of time they would like to wait before having another child, and what they consider to be the ideal number of children. These data make it possible to quantify fertility preferences and, in combination with the data on contraceptive use, permit estimation of the unmet need for family planning, for both spacing and limiting births. However, caution should be exercised in the interpretation of data on fertility preferences because respondents' reported preferences are, in most cases, hypothetical. They may be influenced by social pressure, and they are subject to change and rationalization. Nevertheless, information on future reproductive intentions is of fundamental importance in the development of population policies and in refining and modifying existing family planning programmes.

7.1 DESIRE FOR MORE CHILDREN

In the 2008 SLDHS currently married women and men were asked whether they want to have another child, and if so how soon. Pregnant women, or men whose wives were pregnant at the time of the survey, were asked the same question but phrased differently to ensure that they understood that the question was not about the desire for the current pregnancy but for subsequent children.

Table 7.1 shows fertility preferences and future reproductive intentions of currently married women and men by the number of living children. Twenty-eight percent of women want to have another child soon (within two years), 25 percent want another child after two or more years, and 3 percent say they want to have another child, but are undecided as to when. Thirty percent of currently married women want no more children, 8 percent are undecided about having another child, and a very small proportion (close to 0 percent) are sterilized. Four percent of women declared themselves to be infertile (Figure 7.1). These results indicate that there is a strong need for family planning services either for child spacing or limiting births.

Table 7.1 also shows that there are differences in fertility preferences between men and women. Overall, 36 percent of currently married men want another child soon (within two years), compared with 28 percent of currently married women. Conversely, men are less likely than women to want no more children (17 and 30 percent, respectively); only 1 percent of men have been sterilized.

The desire to stop (limit) childbearing—which includes those who want no more children and the small proportion sterilized—increases with the number of living children a woman has, from 2 percent among women with no children to 77 percent among women with six or more children. Women are more likely to want to limit childbearing at lower parities than men. For example, 14 percent of women with two children want to stop childbearing or are sterilized, compared with 7 percent of men. Similarly, 77 percent of women with six or more children want to stop childbearing or are sterilized, compared with 32 percent of men with six or more children.

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, Sierra Leone 2008

Desire for children	Number of living children ¹							Total 15-49	Total 50-59	Total 15-59
	0	1	2	3	4	5	6+			
WOMEN ¹										
Have another soon ²	74.1	46.1	32.3	24.4	15.3	6.5	3.3	28.0	na	na
Have another later ³	5.4	34.8	35.5	29.3	20.3	13.0	6.4	24.5	na	na
Have another, undecided when	1.6	5.0	4.2	3.6	2.6	1.3	1.0	3.2	na	na
Undecided	7.4	6.0	9.5	8.3	11.1	8.4	6.7	8.3	na	na
Want no more	2.1	4.2	13.5	29.2	45.2	62.8	76.5	30.3	na	na
Sterilized ⁴	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	na	na
Declared infecund	6.2	2.8	3.4	2.8	4.2	5.3	3.9	3.8	na	na
Missing	3.1	1.0	1.6	2.4	1.2	2.7	2.1	1.8	na	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0
Number	395	971	1,171	1,011	849	530	598	5,525	0	0
MEN ⁵										
Have another soon ²	74.6	45.2	41.5	35.6	28.6	27.7	24.3	36.0	30.1	35.1
Have another later ³	5.1	35.0	33.1	30.8	28.6	17.2	19.4	26.4	10.9	24.1
Have another, undecided when	0.0	3.2	5.1	4.6	5.0	4.7	3.5	4.1	2.8	3.9
Undecided	7.9	9.3	9.5	9.9	13.9	14.5	17.7	12.2	17.2	13.0
Want no more	4.0	2.8	5.7	15.6	20.4	31.9	30.7	16.9	31.4	19.1
Sterilized ⁴	0.0	1.4	0.8	1.8	0.0	1.7	1.3	1.1	1.9	1.2
Declared infecund	0.0	0.3	0.3	0.0	0.7	0.0	0.0	0.2	1.8	0.4
Missing	8.5	2.8	4.0	1.7	2.8	2.3	3.1	3.1	3.8	3.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	90	253	324	297	255	221	328	1,767	310	2,077

Na = Not applicable

¹ Includes current pregnancy

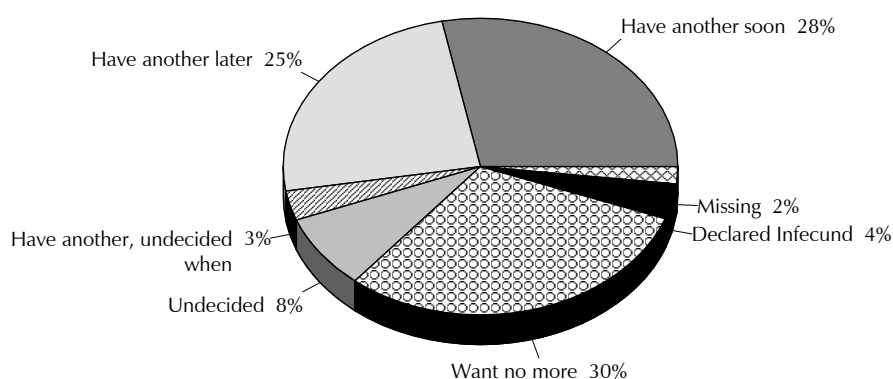
² Wants next birth within 2 years

³ Wants to delay next birth for 2 or more years

⁴ Includes both female and male sterilization

⁵ 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).

Figure 7.1 Fertility Preferences among Married Women



Sierra Leone, 2008

7.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Tables 7.2.1 and 7.2.2 show the desire to limit childbearing among currently married women and men by background characteristics. Table 7.2.1 shows that urban women are slightly more likely to want to limit childbearing than their urban counterparts (33 percent, compared with 29 percent). The desire to limit childbearing is highest among women in the Eastern Region (36 percent), followed closely by those in the Western Region (32 percent).

Background characteristic	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	0.6	3.5	15.4	39.9	54.2	74.4	78.5	32.8
Rural	2.8	4.6	12.6	25.0	41.9	58.9	75.9	29.4
Region								
Eastern	8.0	5.6	16.6	34.4	52.6	73.8	86.2	35.8
Northern	2.0	4.3	9.7	22.5	38.4	58.7	75.0	28.7
Southern	0.0	3.9	13.8	25.4	45.4	57.9	71.1	27.6
Western	1.0	3.4	18.4	45.2	55.7	72.6	79.0	32.3
Education								
No education	1.8	4.8	12.3	26.7	42.8	60.0	74.7	30.2
Primary	3.1	2.6	13.3	34.3	44.1	79.6	87.8	29.5
Secondary or higher	3.0	3.4	20.1	39.9	66.3	76.4	85.1	32.5
Wealth quintile								
Lowest	2.7	2.3	11.0	23.5	44.8	55.4	77.3	26.9
Second	3.8	4.8	13.2	27.5	38.3	62.2	70.7	30.6
Middle	0.0	4.7	10.4	27.4	39.4	54.8	83.9	29.1
Fourth	3.8	4.3	15.8	28.9	45.5	73.4	70.0	32.5
Highest	0.8	5.6	17.5	41.1	64.5	72.9	87.0	33.5
Total	2.1	4.3	13.5	29.2	45.2	62.8	76.5	30.4

Background characteristic	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	2.4	6.2	14.9	33.6	31.7	46.8	42.4	25.6
Rural	4.9	3.1	2.7	9.3	16.0	28.1	29.7	14.8
Region								
Eastern	0.0	4.5	5.3	10.6	21.1	35.7	43.6	18.4
Northern	6.2	0.0	2.0	6.7	11.1	22.4	20.6	11.5
Southern	4.2	3.3	2.9	17.4	21.3	32.6	46.2	18.9
Western	3.3	10.1	21.6	39.9	39.5	66.8	48.8	30.9
Education								
No education	4.9	1.3	3.7	7.2	16.7	24.1	25.1	13.0
Primary	0.0	0.0	2.9	14.2	36.3	57.3	39.7	21.2
Secondary or higher	4.3	10.7	13.4	37.3	22.5	41.4	53.2	27.9
Wealth quintile								
Lowest	3.6	0.0	3.7	5.2	21.0	18.5	32.0	12.6
Second	0.0	0.0	0.0	10.5	20.6	18.9	25.5	13.5
Middle	0.0	5.2	5.1	16.7	10.2	40.9	36.6	18.2
Fourth	16.0	4.6	1.5	10.2	18.7	44.6	30.9	17.3
Highest	3.6	9.7	21.8	45.8	35.8	56.7	49.7	30.9
Total 15-49	4.0	4.2	6.5	17.4	20.4	33.6	32.0	18.0

Table 7.2.2 shows that a much higher proportion of men in urban areas would like to limit childbearing (26 percent) than men in rural areas (15 percent). Men in the Northern Region were the least likely to want to limit childbearing (12 percent), while men in the Western Region were the most likely to want to limit childbearing (31 percent).

Education has a role in the desire of women and men to limit childbearing. The proportion of women and men who want to stop childbearing is highest among those with secondary or higher education (33 percent of women and 28 percent of men); for women and men with no education, the proportions are 30 percent for women and 13 percent for men. Likewise, women and men in the highest (richest) wealth quintile are more likely than those in lower wealth quintiles to want to limit childbearing.

7.3 NEED FOR FAMILY PLANNING SERVICES

The proportion of women who want to stop childbearing or who want to space their next birth is a crude measure of the extent of the need for family planning, given that not all of these women are exposed to the risk of pregnancy and some of them may already be using contraception. This section discusses the extent of the need for family planning and the potential demand for family planning services in Sierra Leone. Currently married fecund women who want to postpone their next birth for two or more years or who want to stop childbearing altogether but are not using a contraceptive method are considered to have an unmet need for family planning.

Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted. Similarly, amenorrhoeic women who are not using family planning and whose last birth was mistimed are considered to have an unmet need for spacing, and those whose last child was unwanted have an unmet need for limiting. Women who are currently using a family planning method are said to have a met need for family planning. The total demand for family planning consists of those who fall into the met need and unmet need categories.

Table 7.3 shows the need for family planning among currently married women by background characteristics. Overall, 28 percent of married women in Sierra Leone have an unmet need for family planning, with a higher proportion with an unmet need for spacing births than with an unmet need for limiting births. Only 8 percent of women in Sierra Leone have a met need for family planning. If all currently married women who say they want to space or limit their children were to use a family planning method, the contraceptive prevalence rate would increase to 36 percent. Currently, 23 percent of the family planning needs of currently married women are being satisfied.

Unmet need for family planning shows an inverted U-shaped pattern by age, increasing from 22 percent in age group 15-19 to a peak in age group 30-34 (34 percent), then declining steadily thereafter, reaching the lowest level in age group 45-49 (19 percent). Unmet need for spacing is generally higher among younger women, while unmet need for limiting is generally higher among older women.

Unmet need is slightly higher among urban women (29 percent) than among rural women (27 percent), but both groups of women have higher levels of unmet need for spacing than for limiting. Because met need is substantially higher among urban women than rural women (16 percent, compared with 5 percent), the total demand for family planning is higher among urban women (45 percent) than among rural women (32 percent).

Table 7.3 Unmet 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 for the demand for contraception that is satisfied, by background characteristics, Sierra Leone 2008

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	19.8	2.4	22.2	0.9	0.3	1.2	20.7	2.7	23.4	5.1	359
20-24	25.1	3.0	28.1	5.1	0.3	5.5	30.2	3.3	33.6	16.3	812
25-29	22.1	6.1	28.2	6.1	1.6	7.7	28.2	7.7	35.9	21.4	1,429
30-34	18.2	15.5	33.8	5.6	4.2	9.8	23.9	19.7	43.6	22.5	899
35-39	11.4	18.0	29.4	4.1	6.8	10.9	15.5	24.8	40.3	27.0	1,022
40-44	3.8	18.6	22.3	2.0	9.7	11.7	5.7	28.3	34.0	34.4	572
45-49	3.2	15.5	18.7	1.0	5.6	6.6	4.1	21.2	25.3	26.0	431
Residence											
Urban	16.1	12.5	28.6	9.0	7.3	16.2	25.1	19.7	44.8	36.3	1,561
Rural	16.5	10.7	27.2	2.5	2.5	5.0	19.0	13.2	32.2	15.6	3,965
Region											
Eastern	17.0	14.8	31.8	3.2	2.9	6.2	20.2	17.8	38.0	16.2	1,028
Northern	17.1	9.9	27.1	1.7	2.7	4.4	18.8	12.6	31.5	14.0	2,434
Southern	14.9	9.5	24.3	5.0	3.4	8.4	19.9	12.9	32.8	25.8	1,206
Western	15.8	12.8	28.5	12.3	8.8	21.2	28.1	21.6	49.7	42.6	858
Education											
No education	15.6	11.2	26.7	2.9	2.9	5.7	18.4	14.0	32.5	17.6	4,280
Primary	20.5	9.9	30.5	5.9	4.9	10.8	26.4	14.9	41.3	26.3	601
Secondary or higher	17.9	12.5	30.4	12.8	9.5	22.3	30.7	22.0	52.7	42.3	644
Wealth quintile											
Lowest	16.1	10.4	26.5	2.3	2.1	4.4	18.4	12.5	30.9	14.3	1,178
Second	16.8	10.9	27.8	1.6	1.9	3.5	18.4	12.9	31.3	11.3	1,144
Middle	16.3	11.4	27.7	2.3	2.3	4.6	18.5	13.7	32.3	14.1	1,186
Fourth	17.5	11.9	29.4	5.3	5.3	10.6	22.8	17.2	40.0	26.6	1,051
Highest	15.2	11.4	26.5	11.6	8.6	20.2	26.7	20.0	46.7	43.2	967
Total	16.4	11.2	27.6	4.3	3.9	8.2	20.7	15.0	35.8	22.9	5,525

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

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

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.

Looking at regional differences, unmet need for family planning is highest in the Eastern Region (32 percent) and lowest in the Southern Region (24 percent). Women with primary and secondary or higher education have a higher unmet need (31 and 30 percent, respectively) than women with no education (27 percent). No pattern was seen in the relationship between unmet need for family planning and wealth quintile; however, women in the fourth quintile have the highest level of unmet need.

7.4 IDEAL FAMILY SIZE

In the 2008 SLDHS, ideal family size was measured in two ways. Respondents who did not have any children were asked the number of children they would like to have if they could choose the exact number to have, and respondents who had living children were asked how many children they would like to have if they could go back to the time when they did not have any children and choose exactly the number of children to have. Even though these questions are based on hypothetical situations, they provide two measures. First, for men and women who have not yet started a family, the data provide an idea of future fertility. Second, for older and high parity women, the excess of past fertility over the ideal family size provides a measure of unwanted fertility. The results are presented in Table 7.4 for both women and men age 15-49.

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 number of living children, Sierra Leone 2008								
Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
WOMEN¹								
0	4.4	0.8	0.2	0.6	0.6	0.0	0.9	1.3
1	0.2	1.0	0.2	0.1	0.3	0.0	0.0	0.3
2	13.3	7.7	5.3	2.1	1.5	1.4	1.8	5.7
3	20.3	16.2	10.6	10.2	3.4	4.8	2.5	11.3
4	35.4	37.4	39.4	27.4	30.3	15.1	17.0	31.4
5	8.3	10.6	15.2	16.3	14.3	21.5	9.0	13.1
6+	14.1	21.5	25.1	37.2	42.9	50.3	60.0	31.4
Non-numeric responses	4.0	4.7	4.0	6.2	6.9	7.0	8.8	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,426	1,338	1,347	1,103	921	589	650	7,374
Mean ideal number of children for:²								
All women	3.9	4.5	4.8	5.2	5.6	6.1	6.5	5.0
Number	1,370	1,276	1,293	1,035	857	548	593	6,972
Currently married women	4.6	4.8	4.9	5.3	5.6	6.2	6.5	5.3
Number	379	917	1,121	945	787	496	546	5,190
MEN³								
0	10.8	1.2	0.9	1.3	1.9	2.9	2.1	5.0
1	0.4	1.1	0.8	0.0	0.0	0.0	0.0	0.4
2	12.1	8.8	4.2	1.3	1.6	0.6	0.7	6.5
3	12.7	17.7	11.6	8.8	1.3	0.4	0.9	9.4
4	30.6	31.6	32.8	27.7	19.2	15.4	13.2	26.5
5	11.0	15.1	16.3	18.0	21.1	17.9	6.9	13.8
6+	20.7	20.3	30.0	39.5	50.2	60.1	66.9	34.6
Non-numeric responses	1.8	4.3	3.4	3.4	4.8	2.8	9.3	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,101	352	356	313	264	228	329	2,944
Mean ideal number of children for men 15-49:²								
All men	4.1	4.7	5.2	5.6	6.7	7.2	9.2	5.5
Number	1,081	337	344	302	252	222	299	2,837
Currently married men	4.8	5.0	5.4	5.6	6.7	7.3	9.2	6.4
Number	83	242	311	287	242	214	297	1,678
Mean ideal number of children for men 15-59:²								
All men	4.1	4.7	5.2	5.6	6.7	7.2	9.9	5.8
Number	1,086	346	363	331	280	252	444	3,128
Currently married men	4.9	5.0	5.3	5.6	6.7	7.3	10.0	6.8
Number	88	251	330	316	271	244	443	1,943
¹ Includes current pregnancy								
² Respondents who gave non-numeric responses were excluded from the calculation of means								
³ 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 vast majority of women and men were able to provide a numeric response; only 5 percent of women and 4 percent of men did not give a numeric response but provided answers such as ‘any number,’ ‘it’s up to God,’ or ‘do not know.’

The data reflect a strong desire for large families among Sierra Leonean women and men. More respondents reported six or more children as ideal than any other number of children (31 percent of women and 35 percent of men). The next most common number reported as ideal is four children. Overall, the mean ideal number of children is higher for men (5.5 children) than for women (5.0 children). The 2008 SLDHS data show that the preferred family size for both sexes in Sierra Leone is higher than the four children suggested in the National Population Policy.

Table 7.4 shows that the mean ideal family size increases with the number of living children for both women and men, from about four children among women with no children to almost seven children among those with six or more children, indicating the positive association between actual and ideal number of children. For men, ideal family size increases from four children among men with no children to at least nine children among those with six or more living children. Interestingly, more men than women with no children want to keep their status childless (11 percent of men, compared with 4 percent of women).

This positive association between actual and ideal number of children may be due to two factors. First, to the extent that women and men are able to implement their fertility desires, those who want smaller families will tend to achieve smaller families. Second, some women and men may have difficulty admitting their desire for fewer children (if they could go back in time and begin childbearing again), and may report their actual number of children as their preferred number of children. Despite this tendency to rationalize the ideal number of children, the SLDHS data provide evidence of unwanted fertility, with nearly one-third of women (31 percent) and one-fourth of men (24 percent) who have six or more children wanting an ideal family size of less than six children. Similarly, among women with five children, one in five said they would prefer to have fewer children than they actually have.

7.5 MEAN IDEAL NUMBER OF CHILDREN BY BACKGROUND CHARACTERISTICS

Table 7.5 shows the mean ideal number of children for all women age 15-49 by background characteristics. The mean ideal number of children increases with age from 4.1 children among women age 15-19 to 6.1 children among women age 45-49. Ideal family size is higher in rural areas (5.4 children) than urban areas (4.2 children); it is highest in the Northern Region (5.4 children) and the Southern Region (5.3 children), and lowest in the Western Region (3.8 children). Ideal family size decreases with increasing level of education; there is nearly a two-child difference between women with no education (5.5 children) and women with secondary or higher education (3.7 children). Like education, there is an inverse relationship between mean ideal number of children and household wealth status (wealth quintile), with women in the lowest (poorest) wealth quintile having the highest ideal number of children (5.7 children) and women in the highest (richest) wealth quintile having the lowest ideal number of children (3.9 children).

Table 7.5 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Sierra Leone 2008

Background characteristic	Mean ideal number of children	Number of women ¹
Age		
15-19	4.1	1,153
20-24	4.5	1,154
25-29	4.8	1,557
30-34	5.1	989
35-39	5.6	1,050
40-44	5.8	604
45-49	6.1	466
Residence		
Urban	4.2	2,551
Rural	5.4	4,421
Region		
Eastern	4.9	1,302
Northern	5.4	2,786
Southern	5.3	1,442
Western	3.8	1,442
Education		
No education	5.5	4,543
Primary	4.5	909
Secondary or higher	3.7	1,521
Wealth quintile		
Lowest	5.7	1,306
Second	5.5	1,255
Middle	5.3	1,352
Fourth	4.8	1,406
Highest	3.9	1,653
Total	5.0	6,972

¹ Women who gave a numeric response

7.6 FERTILITY PLANNING STATUS

The issue of unplanned and unwanted fertility was further investigated in the 2008 SLDHS by asking women age 15-49 a series of questions about each child born to them in the past five years, as well as any current pregnancy, to determine whether the birth or pregnancy was wanted then (planned), wanted later (mistimed), or not wanted at all (unplanned) at the time of conception. In assessing these results, it is important to recognize that women may declare a previously unwanted birth or current pregnancy as wanted; such rationalizations can result in an underestimate of the true extent of unwanted births.

Table 7.6 shows the percent distribution of births (including current pregnancy) in the five years preceding the survey by planning status of the birth, according to birth order and age of mother at birth. The results indicate that 26 percent of births in Sierra Leone were not planned; 16 percent were mistimed (wanted later); and 10 percent were unwanted. There are no definite patterns in the proportion of births that are mistimed or unwanted by birth order, although the percentage of unwanted births is highest for births of order four and above. Among women, the percentage of unwanted births increases with age, from a low of 5 percent among mothers age 20-24 to a high of 42 percent among mothers age 45-49. As expected, mistimed births are most common among younger mothers. Eighteen percent of births to young women age 15-19 were mistimed and 11 percent were unwanted.

Table 7.6 Fertility planning status						
Percent distribution of births among 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, Sierra Leone 2008						
Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	71.3	15.9	10.5	2.3	100.0	1,285
2	80.3	13.9	4.7	1.1	100.0	1,289
3	77.7	14.5	5.2	2.6	100.0	1,087
4+	65.3	16.7	15.0	3.0	100.0	2,748
Mother's age at birth						
<20	69.8	17.7	10.9	1.6	100.0	1,073
20-24	77.2	15.3	5.3	2.2	100.0	1,737
25-29	73.2	17.1	7.1	2.6	100.0	1,578
30-34	67.8	14.4	14.2	3.5	100.0	1,100
35-39	68.5	12.4	17.2	1.9	100.0	659
40-44	56.7	14.7	25.3	3.2	100.0	228
45-49	(52.8)	(5.2)	(42.0)	(0.0)	100.0	35
Total	71.6	15.6	10.4	2.4	100.0	6,409

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

7.7 WANTED FERTILITY RATES

Using information on whether births occurring in the five years before the survey were wanted or not, a total 'wanted' fertility rate has been calculated. The wanted fertility rate measures the potential demographic impact of avoiding unwanted births. The wanted fertility rate is calculated in the same manner as the conventional total fertility rate (TFR), except that unwanted births are excluded. 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 by the respondent. Women who did not report a numeric ideal family size were assumed to want all their births. These rates represent the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been prevented. A comparison of the total wanted fertility rate and the actual total fertility rate suggests the potential demographic impact of eliminating unwanted births (Table 7.7).

Table 7.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Sierra Leone 2008

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	3.4	3.8
Rural	5.2	5.8
Region		
Eastern	5.0	5.6
Northern	5.1	5.8
Southern	4.5	5.0
Western	3.0	3.4
Education		
No education	5.1	5.8
Primary	4.6	5.1
Secondary or higher	2.8	3.1
Wealth quintile		
Lowest	5.7	6.3
Second	5.2	5.8
Middle	5.0	5.8
Fourth	4.3	4.9
Highest	2.9	3.2
Total	4.5	5.1

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.

The total wanted fertility rate for Sierra Leone is 4.5 children, with is 0.6 children lower than the actual total fertility rate of 5.1 children. This implies that the total fertility rate could be reduced by 12 percent if unwanted births are eliminated.

The gap between wanted and observed fertility is greatest among women living in rural areas, those in the Northern Region, women with no education, and those in the middle quintile.

INFANT AND CHILD MORTALITY

This chapter presents information on levels, trends, and differentials in neonatal, post-neonatal, infant, child and under-five mortality. The information provides mortality statistics to policymakers, programme managers and researchers for use in assessing the impact of health policies and programmes, and to identify sectors of the population that are at high risk. Estimates of infant and child mortality also serve as necessary parameters for population projections, particularly if the level of adult mortality can be inferred with reasonable confidence. Finally, indices of childhood mortality are widely accepted as indicators of the overall living conditions of a population. These rates are also crucial for monitoring progress towards the United Nations Millennium Development Goal (MDG) of reducing child mortality.

8.1 DEFINITION, METHODOLOGY, AND DATA QUALITY

The primary causes of childhood mortality change as children age. A large component of early infant mortality is the result of congenital diseases and other biological factors related to conditions in early infancy. Child mortality (1-4 years), on the other hand, is primarily the result of environmental causes that are more susceptible to control, such as infectious diseases, malnutrition, and accidents. As under-five mortality declines over time, it is often observed that child mortality declines to a greater degree than infant mortality; this phenomenon is mainly the result of improvements in children's environments brought about by public health interventions or general improvements in living standards (Sullivan et al., 1994). In this chapter, age-specific mortality measures are defined as follows:

Neonatal mortality:	the probability of dying in the first month of life.
Post-neonatal mortality:	the probability of dying between the neonatal period and the first birthday; calculated as the difference between infant and neonatal mortality.
Infant mortality:	the probability of dying before the first birthday.
Child mortality:	the probability of dying between the first and fifth birthdays.
Under-five mortality:	the probability of dying before the fifth birthday.

All measures are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

There are several methods that can be used for the direct calculation of infant and child mortality rates, e.g., period approach, true cohort approach, and synthetic cohort approach. It is beyond the scope of this report to describe the differences between the main approaches, but a technical explanation can be found in the *Guide to DHS Statistics* (Rutstein and Rojas, 2003). DHS uses the synthetic cohort approach, which calculates mortality probabilities for small age segments, and then combines these component probabilities for the full age segment of interest. The advantage to this method is that mortality rates can be calculated for time periods close to the survey date while still respecting the principle of correspondence. The data needed for the calculations are in the birth history section of the Woman's Questionnaire and include the month and year of birth for all of a woman's children, their sex and survival status, and the current age at the time of the interview if the child is alive, or age at death if the child has died.

The quality of mortality estimates calculated from retrospective birth histories depends on the completeness with which births and deaths are reported and recorded. Potentially the most serious data quality problem is the selective omission from the birth history of children who did not survive, which can lead to underestimation of mortality rates. Other potential problems include displacement

of birth dates, which may cause a distortion of mortality trends, and misreporting of age at death, which may distort the age pattern of mortality. When selective omission of childhood deaths occurs, the impact is usually most severe for deaths in early infancy. If early neonatal deaths are selectively underreported, the result is an unusually low ratio of deaths occurring in the first seven days to all neonatal deaths, and an unusually low ratio of neonatal to infant deaths. Underreporting of early infant deaths is seen most commonly for births that occurred long before the survey; hence it is useful to examine the ratios over time.

An examination of the ratios (see Appendix Tables C.5 and C.6) shows that no significant number of early infant deaths was omitted in the 2008 SLDHS over the 15 years preceding the survey. The proportions of neonatal deaths are roughly constant (between 70 and 76 percent). However, for the period 15-19 years preceding the survey, the proportion was much higher (84 percent). The proportions of infant deaths that occur during the first month of life are entirely plausible over the 15 years preceding the survey (varying between 43 and 46 percent).

This inspection of the mortality data reveals no evidence of selective underreporting or misreporting of age at death that would significantly compromise the quality of the SLDHS rates for childhood mortality.

8.2 LEVELS AND TRENDS

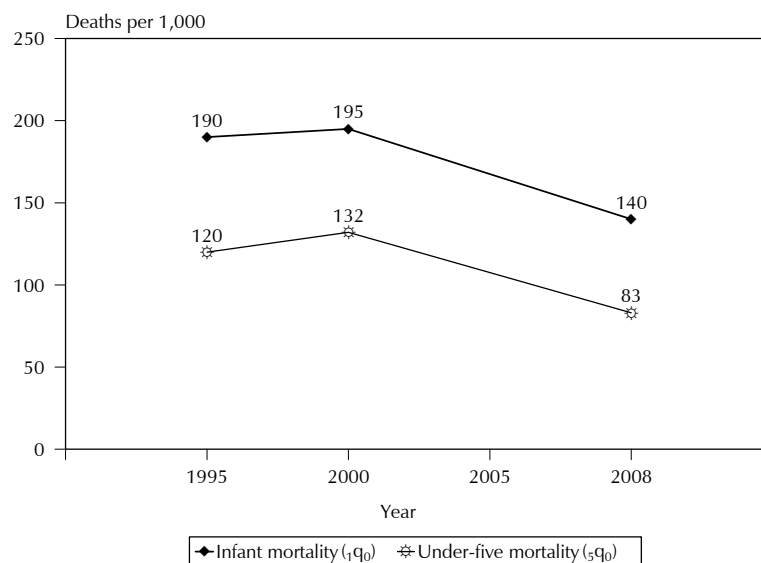
Table 8.1 shows the variation in neonatal, post-neonatal, infant, child, and under-five mortality rates for three successive five-year periods preceding the survey. For the most recent five-year period, infant mortality is 89 deaths per 1,000 live births, and under-five mortality is 140 deaths per 1,000 live births. This means that about one in eleven children born in Sierra Leone dies before the first birthday, and one in seven children dies before attaining the fifth birthday. Neonatal mortality is 36 deaths per 1,000 live births in the most recent five-year period, while post-neonatal mortality is 53 deaths per 1,000 live births. This pattern shows that about 40 percent of deaths under one year of age occur in the neonatal period, and more than one-quarter of child deaths under five years occur in the neonatal period.

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)	Under-five mortality (${}_5q_0$)
0-4	36	53	89	56	140
5-9	61	71	132	73	195
10-14	51	70	120	80	190

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

Figure 8.1 shows in more detail the trends in infant and under-five mortality over the 15 years preceding the survey. Infant mortality and under-five mortality rates decreased between the mid-1990s and the mid-2000s by 26 percent (for both). However, the figure also shows that infant and under-five mortality rates were highest during the period 1998-2002. The increase in mortality during this time can be explained in two ways: 1) the impact of the peak period of the civil war; and/or 2) by the transfer of births, in particular dead children, from the 5th year to the 6th year preceding the survey, as shown in Appendix Table C4.

Figure 8.1 Trends in Infant and Under-five Mortality in the 15 Years Preceding the Survey



Note: Data are centred on mid-point of period covered by estimate.

Sierra Leone, 2008

The infant and child mortality estimates from the SLDHS cannot be compared with estimates from other sources. No other survey undertaken in Sierra Leone used the same methodology as the 2008 SLDHS. This is the first national survey in the country that has collected data on infant and child mortality based on the retrospective reproductive histories of women age 15-49.

8.3 DIFFERENTIALS IN INFANT AND CHILD MORTALITY

8.3.1 Socio-economic Differentials in Infant and Child Mortality

Mortality differentials by residence, region, mother's level of education, and wealth quintile are presented in Table 8.2 and Figure 8.2. To have a sufficient number of births to analyse mortality differentials across population subgroups, period-specific rates are presented for the ten-year period preceding the survey (mid-1995 to mid-2005).

Differentials by residence show similar under-five mortality rates for both rural and urban areas (168 and 167 deaths per 1,000 live births, respectively). There is very little difference in mortality levels in urban and rural areas among children who are less than one year of age.

The 2008 SLDHS data show wide variations in mortality levels by region. The Southern Region has the highest mortality rates for all mortality indicators except for neonatal mortality and child mortality. Child mortality and neonatal mortality are highest in the Northern Region. Under-five mortality is highest in the Southern Region (180 deaths per 1,000 live births), followed by the Northern Region (173 per 1,000) and the Western Region (162 per 1,000), and lowest in the Eastern Region (147 per 1,000). This implies that a child born in the Southern or Northern regions is at greater risk of dying before the fifth birthday than a child born in the Eastern or Western regions.

Table 8.2 Early childhood mortality rates by background characteristics

Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, Sierra Leone 2008

Background characteristic	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Residence					
Urban	49	56	106	68	167
Rural	49	65	113	62	168
Region					
Eastern	39	56	95	57	147
Northern	54	60	113	67	173
Southern	45	77	122	66	180
Western	51	58	109	59	162
Mother's education					
No education	49	65	114	63	170
Primary	49	65	114	83	187
Secondary or higher	45	41	85	49	130
Wealth quintile					
Lowest	68	80	148	74	211
Second	45	56	101	58	154
Middle	41	64	105	59	158
Fourth	45	55	99	69	161
Highest	41	52	93	57	144

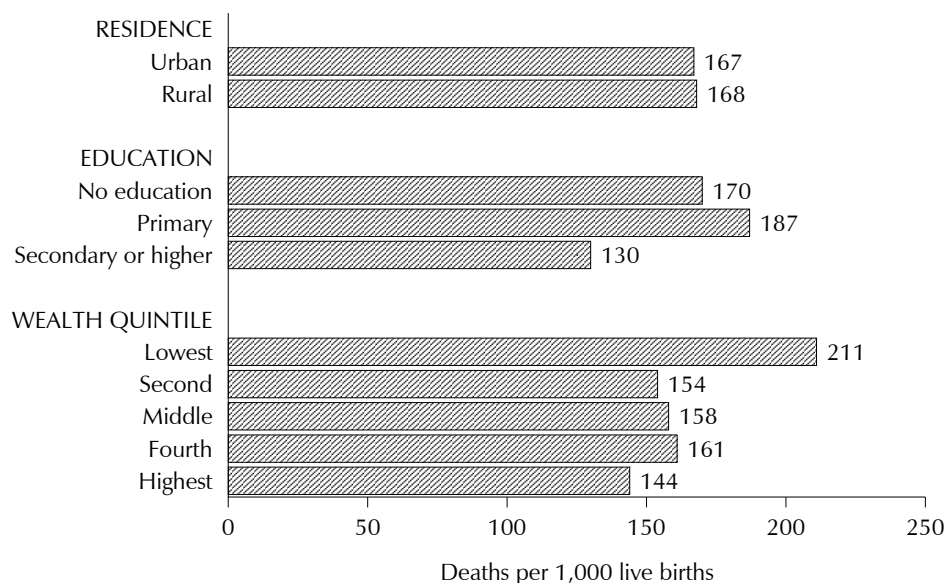
¹ Computed as the difference between the infant and neonatal mortality rates

Similar patterns are seen for infant mortality. Neonatal mortality is highest in the Northern Region (54 deaths per 1,000 live births), followed by the Western Region (51 per 1,000), while post-neonatal mortality is highest in the Southern Region (77 per 1,000), followed by the Northern Region (60 per 1,000). Mortality rates by region should be interpreted with caution because of district variations within regions and because of the high level of sampling errors (Appendix B).

Empirical evidence from several studies have shown that mother's level of education is inversely related to her child's risk of dying. Higher levels of educational attainment are generally associated with lower mortality rates, because education exposes mothers to information about good nutrition, use of contraceptives to limit and space births, and knowledge about childhood illnesses and treatment. The 2008 SLDHS results show large differentials in mortality between children of mothers with primary education or no education and children of mothers with secondary or higher education (see Table 8.2). The under-five mortality rate is highest for children of mothers with primary education (187 per 1,000), followed by children of mothers with no education (170 per 1,000). Children whose mothers have secondary or higher education experience the lowest under-five mortality rate (130 per 1,000). They also experience the lowest infant mortality rate; the chances of a child dying at under one year are lower for mothers with secondary or higher education than those with primary or no education (85, 114, and 114 deaths per 1,000 live births, respectively).

Mortality risk for children is associated with the economic status of the household. Childhood mortality rates are highest for children living in households in the lowest wealth quintile. With the exception of the second quintile, under-five mortality decreases gradually with improving economic status of the household, falling from a high of 211 deaths per 1,000 live births in households in the lowest wealth quintile to 144 per 1,000 in households in the highest wealth quintile.

Figure 8.2 Under-five Mortality by Mother's Background Characteristics



Sierra Leone, 2008

8.3.2 Demographic Differentials in Infant and Child Mortality

This section examines differentials in mortality among children under five years by age, sex of child, age of mother at birth, birth order, previous birth interval, and birth size. The results are presented in Table 8.3 for the ten-year period preceding the survey.

The results show that male children experience higher mortality than female children at all ages up to five years. No likely explanation has been suggested for the gender differences in mortality between male and female children.

The relationship between mother's age at birth and childhood mortality presents a U-shaped pattern, with children of the youngest and oldest mothers experiencing the highest mortality risks. That is, mortality is higher among children born to women below 20 years and those between 30-39 years and lowest among children whose mothers are age 20-29 years at the time of birth.

Childhood mortality rates also exhibit a U-shaped relationship with birth order of the child; however, this association applies only to neonatal, infant, and under-five mortality. In general, mortality is higher for first-order births (with the exception of post-neonatal mortality), compared with second- to sixth-order births. Birth order seven and above shows higher mortality risks than births of order one.

Birth intervals have a considerable impact on children's chances of survival. Short birth intervals are associated with an increased risk of dying. As the birth interval increases in length, the mortality risk is reduced considerably. Children born less than two years after a prior sibling have substantially higher risk of death than children born after intervals of two or more years. For example, the infant mortality rate is 182 deaths per 1,000 live births for children born after an interval of less than two years, compared with 80 per 1,000 for a birth interval of three years, and 54 per 1,000 for a birth interval of four or more years.

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, Sierra Leone 2008

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality ¹ (PNN)	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Sex of child					
Male	53	65	118	67	177
Female	45	60	105	61	159
Mother's age at birth					
<20	56	77	133	86	208
20-29	46	57	104	57	154
30-39	50	60	110	57	161
40-49	(34)	(57)	(91)	*	*
Birth order					
1	65	60	125	66	183
2-3	36	59	95	57	147
4-6	47	61	108	67	168
7+	68	82	150	77	215
Previous birth interval²					
<2 years	83	98	182	86	252
2 years	39	64	103	75	170
3 years	25	55	80	48	124
4+ years	24	30	54	29	81
Birth size³					
Small/very small	56	64	120	na	na
Average or larger	29	42	71	na	na

Note: Numbers in parentheses are based on 250-499 unweighted children exposed to the risk of death, and an asterisk represents a rate based on fewer than 250 children that has been suppressed.
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 size of a child at birth is related to childhood mortality rates. Children whose birth size is described by the mother as 'small' or 'very small' have a 40 percent greater risk of dying before their first birthday than children whose birth size is described as 'average or larger.' The size of the child at birth appears to strongly affect the neonatal mortality rate but has little effect during the post-neonatal period.

8.4 PERINATAL MORTALITY

Pregnancy deaths that are pregnancy losses occurring after seven completed months of gestation (stillbirths) and deaths within seven days of birth (early neonatal deaths) constitute perinatal deaths. The perinatal death rate is calculated by dividing the total number of perinatal deaths by the total number of pregnancies reaching seven months of gestation. The distinction between a stillbirth and an early neonatal death may be a fine one, depending often on the observed presence or absence of some faint signs of life after delivery. The causes of stillbirths and early neonatal deaths are overlapping, and examining just one or the other can understate the true level of mortality around delivery.

Table 8.4 presents the number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey by residence and region, and for selected demographic and socio-economic characteristics. The survey results show 5,860 reported pregnancies of at least seven months gestation during the five years preceding the survey, 49 stillbirths and 147 early neonatal deaths, yielding an overall perinatal mortality rate of 34 deaths per 1,000 pregnancies.

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, Sierra Leone 2008				
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	7	29	36	984
20-29	26	66	31	3,003
30-39	14	46	37	1,627
40-49	3	6	*	247
Previous pregnancy interval in months⁴				
First pregnancy	9	41	44	1,111
<15	5	4	*	228
15-26	12	31	36	1,185
27-38	9	39	35	1,372
39+	15	33	24	1,965
Residence				
Urban	20	48	43	1,605
Rural	29	99	30	4,255
Region				
Eastern	1	31	27	1,170
Northern	16	60	29	2,640
Southern	14	26	33	1,200
Western	19	30	58	850
Mother's education				
No education	30	109	31	4,473
Primary	7	17	34	720
Secondary or higher	12	21	50	667
Wealth quintile				
Lowest	9	49	44	1,336
Second	9	25	28	1,228
Middle	6	23	22	1,294
Fourth	12	21	30	1,114
Highest	14	29	48	888
Total	49	147	34	5,860

Note: An asterisk represents a rate based on fewer than 250 unweighted pregnancies of 7+ months duration that has been suppressed.

¹ Stillbirths are foetal 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 1,000.

⁴ Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.

By mother's age, perinatal mortality is highest among women under age 20 (36 deaths per 1,000 pregnancies) and women age 30-39 (37 deaths per 1,000 pregnancies). However, first pregnancies and pregnancies that occur within an interval of less than 15 months are more likely to end in perinatal death than pregnancies that occur after an interval of at least 15 months.

There are wide differences in perinatal mortality by residence, with rural women more likely to experience perinatal losses than urban women. Large differences are also seen by region; the Western Region has the highest perinatal mortality rate (58 deaths per 1,000 pregnancies), and the Eastern Region has the lowest rate (27 deaths per 1,000 pregnancies). Surprisingly, perinatal mortality is highest among women with secondary or higher education (50 deaths per 1,000 pregnancies), compared with women who have primary education (34 deaths per 1,000 pregnancies) or no education (31 deaths per 1,000 pregnancies). The relationship between perinatal mortality and household wealth status (wealth quintiles) shows a U-shaped pattern, with women in the lowest and highest wealth quintiles experiencing more perinatal losses than women in the middle wealth quintiles.

8.5 HIGH-RISK FERTILITY BEHAVIOUR

Several studies have documented that survival of children partly depends on demographic and biological characteristics of the mothers. In general, the probability of dying in early childhood is much greater among children born to mothers who are too young or too old, children born after a short birth interval, and children born to mothers with high parity. The risk is elevated if a child is born to a mother who has more than one of these risk characteristics. It is apparent that young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. Similarly, older women may also experience age-related problems during pregnancy and delivery. In the analysis, a mother is classified as 'too young' if she is less than 18 years of age and 'too old' if she is over 34 years of age at the time of delivery; a 'short birth interval' is defined as a birth occurring within 24 months of a previous birth; and a 'high-order' birth is one occurring after three or more previous births (i.e., birth order four or higher). 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 behaviour. For the short birth interval category, only children with a preceding interval of less than 24 months are included.

Table 8.5 presents the distribution of children born in the five years preceding the survey by categories of elevated risk of dying. The second column shows the percentage of children falling into specific categories. The third column shows the risk ratio for children, calculated by comparing the proportion dead among children in each high-risk category with the proportion dead among children not in any high-risk category. This implies children whose mothers were age 18-34 at delivery, children born 24 or more months after the previous birth, or children who are of birth order two or three).

Fifty-eight percent of children in Sierra Leone fall into a high-risk category, with 39 percent in a single high-risk category and 19 percent in a multiple high-risk category. High risks are associated with birth intervals of less than 24 months, births to mothers older than 34 years, births above order three and intervals of less than 24 months to mothers younger than 18 years under the single high-risk category. In general, risk ratios are higher for children in a multiple high-risk category than for children in a single high-risk category. The highest risk (3.3) is associated with fourth and higher births that occur less than 24 months after a previous birth to mothers who are over age 34 years; however, only 2.2 percent of births fall into this multiple high-risk category. Six percent of births in Sierra Leone occur after a short birth interval to mothers who have had three or more births, with these children three times as likely to die in early childhood as children who are not in any high-risk category.

The last column of Table 8.5 shows the distribution of currently married women who have the potential for a high-risk birth. This column is purely hypothetical and does not take into consideration the protection provided by family planning, postpartum insusceptibility, and the effects of prolonged abstinence. While several women are protected from conception (because of family planning, postpartum insusceptibility, and prolonged abstinence), only those who have been sterilized are included in the 'not in any high-risk category.' Generally, 76 percent of currently married women have the potential for having a high-risk birth, with 32 percent falling into a single high-risk category and 45 percent into a multiple high-risk category.

Table 8.5 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Sierra Leone 2008

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	28.7	1.0	18.2 ^a
Unavoidable risk category			
First order births between ages 18 and 34 years	13.3	1.7	5.4
Single high-risk category			
Mother's age <18	7.3	1.9	0.8
Mother's age >34	1.5	0.7	5.5
Birth interval <24 months	5.5	2.1	8.8
Birth order >3	24.5	1.2	16.5
Subtotal	38.7	1.5	31.6
Multiple high-risk category			
Age <18 & birth interval <24 months ²	0.7	2.1	0.6
Age >34 & birth interval <24 months	0.1	0.0	0.3
Age >34 & birth order >3	10.6	1.4	25.7
Age >34 & birth interval <24 months & birth order >3	2.2	3.3	6.3
Birth interval <24 months & birth order >3	5.7	2.7	11.8
Subtotal	19.3	2.1	44.8
In any avoidable high-risk category	58.0	1.7	76.4
Total	100.0	na	100.0
Number of births/women	5,811	na	5,525

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births *not in any high-risk category*.

na = Not applicable

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

² Includes the category age <18 and birth order >3

^a Includes sterilized women

The health care that a mother receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and her child. One of the priorities of the Ministry of Health and Sanitation is the provision of medical care and services during pregnancy and at delivery that impact the survival of both the mother and infant. The results of the 2008 Demographic and Health Survey conducted in Sierra Leone provide an evaluation of the utilization of these health care services, as well as information useful in assessing the need for service expansion. The information can be used to identify women whose babies are at risk due to non-use of maternal health services.

This chapter presents findings on several areas related to maternal health—antenatal, delivery, and postnatal care—as well as problems in accessing medical care. These findings are important to policymakers and programme implementers in formulating programmes and policies and in designing appropriate strategies and interventions to improve maternal and child health care services.

9.1 ANTENATAL CARE

The major objective of antenatal care (ANC) is to identify and treat problems during pregnancy such as anemia, pregnancy induced hypertension and infections. It is during antenatal care visits that screening for complications and advice on a range of issues including place of delivery and referral of mothers with complications occur. Information on antenatal care is important for identifying subgroups of women who do not use these services and for planning improvements in services. The data on antenatal care from the 2008 Sierra Leone Demographic and Health Survey (SLDHS) provide information on the type of service provider, the number of antenatal care visits, the stage of pregnancy at the time of the first and last visits, and the services and information provided during antenatal care, including whether tetanus toxoid immunization was received.

Table 9.1 shows the percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by the type of antenatal care provider consulted during the pregnancy for the most recent birth, according to background characteristics. If a woman received antenatal care from more than one provider, the provider with the highest qualifications was recorded. The survey shows that more than eight in ten women (87 percent) received antenatal care from a health professional (doctor, nurse, midwife, or MCH aid); 5 percent received antenatal care from a traditional midwife or a community health worker; and 7 percent did not receive any antenatal care.

Differences in antenatal care coverage by women's age at the time of the birth are not large. There are some differences by birth order; mothers in Sierra Leone are more likely to receive antenatal care from a doctor for the first birth (10 percent) than for second- or higher-order births (4-6 percent), and high parity women are slightly more likely than low parity women to see MCH aides for antenatal care.

There are notable differences in the use of antenatal care services by women in urban and rural areas. Health professionals provide ANC services for 94 percent of urban mothers, compared with 84 percent of rural mothers. The difference is even larger for women who received antenatal care from a doctor (17 percent in urban areas and 2 percent in rural areas). There are also notable differences in antenatal care coverage by region; 94 percent of women in the Western Region received ANC services from health professionals, compared with only 82 percent of women in the Northern Region. Of particular note is that women in the Western Region are substantially more likely to receive antenatal care from a doctor (25 percent), than women in other regions (2-4 percent).

The survey results show that use of ANC services is positively related to women's level of education. Ninety-five percent of women with secondary or higher education received antenatal care services from a health professional, compared with 85 percent of women with no education. Similarly, more educated women are substantially more likely to receive antenatal care from a doctor (27 percent) than women with no education (3 percent). Household wealth status also shows a positive relationship between receipt of professional antenatal care, with women in the highest wealth quintile more likely to receive antenatal care from health professionals than those in the lowest wealth quintile (96 and 82 percent, respectively). This relationship is even stronger among women who received antenatal care services from a doctor; only 2 to 4 percent of women in the lower wealth quintiles have access to doctors for antenatal care, compared with 25 percent of women in the highest wealth quintile.

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, Sierra Leone 2008

Background characteristic	Doctor	Nurse/ midwife	MCH aid	Community health worker	Traditional birth attendant	Other	No one	Missing	Total	Percentage receiving antenatal care from a skilled provider	Number of women
Mother's age at birth											
<20	4.1	56.9	27.3	2.4	3.1	0.0	5.2	1.0	100.0	88.3	669
20-34	6.9	53.0	27.0	1.9	3.3	0.1	6.7	1.2	100.0	86.8	2,780
35-49	5.4	48.7	31.8	1.7	3.1	0.0	8.2	1.1	100.0	85.8	654
Birth order											
1	10.1	51.9	27.1	1.4	3.1	0.1	5.4	0.9	100.0	89.1	781
2-3	6.3	54.7	25.1	2.5	3.8	0.0	6.5	1.1	100.0	86.1	1,506
4-5	4.5	51.9	29.1	1.7	3.5	0.1	7.7	1.6	100.0	85.4	985
6+	4.4	51.8	32.0	1.7	2.0	0.0	7.1	1.0	100.0	88.2	831
Residence											
Urban	16.7	63.7	13.6	2.0	1.4	0.1	1.7	0.8	100.0	93.9	1,183
Rural	1.9	48.6	33.6	1.9	4.0	0.0	8.7	1.3	100.0	84.1	2,920
Region											
Eastern	4.0	46.2	39.3	1.4	3.9	0.1	3.5	1.4	100.0	89.6	809
Northern	1.5	55.5	24.9	1.9	3.1	0.0	12.2	1.0	100.0	81.9	1,869
Southern	4.3	49.2	36.8	2.8	4.5	0.0	0.8	1.7	100.0	90.3	783
Western	24.8	58.4	10.9	1.9	1.3	0.2	1.7	0.8	100.0	94.1	642
Mother's education											
No education	2.6	50.8	31.1	2.2	3.9	0.0	8.2	1.1	100.0	84.5	3,051
Primary	6.2	62.3	24.1	1.3	2.0	0.3	2.3	1.4	100.0	92.7	515
Secondary or higher	26.7	55.7	12.6	1.3	0.5	0.0	2.1	1.1	100.0	95.0	537
Wealth quintile											
Lowest	1.9	39.4	40.9	1.7	5.3	0.0	9.8	1.1	100.0	82.1	885
Second	1.7	47.9	33.7	1.3	4.0	0.0	10.7	0.8	100.0	83.2	849
Middle	2.2	57.0	26.7	2.7	3.1	0.1	6.7	1.5	100.0	85.9	893
Fourth	4.4	60.7	24.3	2.7	2.5	0.2	4.1	1.1	100.0	89.4	793
Highest	24.8	62.3	9.0	1.4	0.6	0.0	0.6	1.2	100.0	96.1	683
Total	6.2	52.9	27.8	2.0	3.2	0.1	6.7	1.2	100.0	86.9	4,103

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
¹ Skilled provider includes doctor, nurse, midwife, and MCH aid.

9.2 NUMBER AND TIMING OF ANTENATAL CARE VISITS

Antenatal care is most beneficial when it is sought early in pregnancy and is continued through to delivery. Under normal circumstances, the World Health Organization (WHO) recommends that a woman without complications have at least four ANC visits, the first of which takes place during the first trimester. Table 9.2 presents information on antenatal care including the number of visits and the timing of the first visit.

In Sierra Leone, more than half of women (56 percent) have four or more antenatal care visits. Almost two in ten women have one to three ANC visits, but 7 percent of women have no antenatal care visits. The survey also shows that women in Sierra Leone do not receive antenatal care services early during pregnancy. Only 30 percent of women obtained antenatal care in the first three months of pregnancy, while 41 percent made their first visit in the fourth or fifth month, and 17 percent made the first ANC visit in the six or seventh month; 1 percent of women had their first antenatal care visit in the eighth month of pregnancy or later.

There is a notable difference in antenatal care coverage between women in urban areas and women in rural areas. Sixty-six percent of women in urban areas made four or more antenatal care visits, compared with slightly over half (52 percent) of women in rural areas. Urban women also typically received first antenatal care earlier than rural women; 34 percent of urban women saw a provider for antenatal care early in pregnancy, compared with 29 percent of rural women. Overall, the median number of months pregnant at first ANC visit is 4.6 months.

9.3 COMPONENTS OF ANTENATAL CARE

Describing the content of antenatal care is essential for assessing the quality of antenatal care services. Pregnancy complications are a primary source of maternal and child morbidity and mortality. Therefore, ensuring that pregnant women receive information on the signs of complications and testing them for complications should be routinely included in all antenatal care visits. To help assess antenatal care services, respondents were asked whether they had been advised of possible pregnancy complications and whether they had received certain screening tests during at least one of their ANC visits. Table 9.3 presents information on the percentage of women who took iron tablets or syrup, were informed of the signs of pregnancy complications, and received selected services during antenatal care visits for their most recent birth in the past five years.

The data show that the majority (79 percent) of women with a recent birth took iron supplements during pregnancy, but less than half (44 percent) took drugs for intestinal parasites during the pregnancy. Variation by age at birth is minimal. There is a small decrease in the proportion of women who take iron supplements as birth order increases. However, substantial variations are

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, Sierra Leone 2008

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	1.7	8.7	6.7
1	0.5	1.7	1.4
2-3	12.6	20.5	18.2
4+	65.9	52.2	56.1
Don't know/missing	19.3	16.9	17.6
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.7	8.7	6.7
<4	33.6	28.5	30.0
4-5	43.3	40.2	41.1
6-7	17.8	16.3	16.7
8+	1.1	1.6	1.4
Don't know/missing	2.5	4.7	4.0
Total	100.0	100.0	100.0
Number of women	1,183	2,920	4,103
Median months pregnant at first visit (for those with ANC)	4.6	4.7	4.6
Number of women with ANC	1,153	2,629	3,782

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 the percentage who took drugs for intestinal parasites during the pregnancy for 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, Sierra Leone 2008

Background characteristic	Among women with a live birth in the past five years, the percentage who during the pregnancy for their last birth:			Among women who received antenatal care for their most recent birth in the past five years, the percentage who received specific services						Number of women with ANC for their most recent birth
	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past five years	Informed of signs of pregnancy complications	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken		
Mother's age at birth										
<20	80.2	45.8	669	57.1	87.0	83.1	37.9	42.6	627	
20-34	78.5	43.2	2,780	61.3	89.4	87.8	41.9	48.2	2,561	
35-49	79.5	44.6	654	61.9	87.9	87.5	40.4	45.1	593	
Birth order										
1	81.3	44.9	781	62.7	87.4	84.3	46.3	50.7	732	
2-3	77.2	44.4	1,506	60.4	89.2	87.8	42.0	47.6	1,392	
4-5	78.2	40.8	985	59.0	88.7	86.6	39.2	44.5	894	
6+	80.8	45.4	831	61.3	89.4	88.4	36.2	44.2	763	
Residence										
Urban	89.0	45.7	1,183	71.4	90.0	91.4	65.4	67.7	1,153	
Rural	74.9	43.1	2,920	56.0	88.2	85.0	30.3	37.6	2,629	
Region										
Eastern	86.8	33.3	809	61.5	90.0	87.7	21.9	23.1	769	
Northern	69.2	39.0	1,869	58.6	86.7	83.0	40.7	49.5	1,622	
Southern	81.0	62.8	783	47.6	89.9	89.1	28.0	36.1	764	
Western	94.8	48.3	642	80.9	91.2	93.8	81.1	81.9	626	
Mother's education										
No education	75.7	41.5	3,051	57.6	87.6	85.2	34.5	41.1	2,766	
Primary	86.0	49.3	515	64.7	90.0	88.6	44.0	50.0	496	
Secondary or higher	90.8	52.0	537	73.1	93.8	94.9	72.9	74.1	520	
Wealth quintile										
Lowest	72.9	40.3	885	50.3	85.5	80.1	21.7	26.0	789	
Second	71.7	42.4	849	58.3	88.4	84.4	31.4	37.1	751	
Middle	76.0	43.3	893	58.2	90.0	88.1	36.8	46.2	820	
Fourth	82.8	45.7	793	61.7	88.6	89.5	44.4	50.9	751	
Highest	95.2	48.8	683	77.6	91.7	93.7	75.8	78.2	671	
Total	79.0	43.8	4,103	60.7	88.8	87.0	41.0	46.8	3,782	

noted by residence, region, education, and wealth quintile. For example, 89 percent of women in urban areas take iron tablets or syrup during pregnancy, compared with 75 percent of women in rural areas. Women in the Western and Eastern regions are most likely to have taken iron supplements, while women in the Northern Region are the least likely to have taken iron supplements during pregnancy. Women in the Southern and Western regions are more likely to receive drugs for intestinal parasites (63 and 48 percent, respectively), while women in the Eastern Region are the least likely to receive the drugs (33 percent). As expected, better educated women and those who live in households in the higher wealth quintiles are more likely than other women to have taken iron supplements and drugs for intestinal parasites during pregnancy.

Regarding content of antenatal care services, the data show that 61 percent of women in Sierra Leone who received antenatal care reported that they were informed about the signs of pregnancy complications, and weight and blood pressure measurements were taken for 89 and 87 percent of women, respectively. Less than one in two women had a blood sample taken (47 percent) and an even smaller proportion of women had urine samples taken (41 percent).

The quality of antenatal care received by women in Sierra Leone is related to level of education, wealth, residence, and region. Women with secondary or higher education, women in the highest wealth quintile, and women living in urban areas are more likely than other women to be informed about pregnancy complications. Regional variation in the proportion of women who were informed about the complications of pregnancy during ANC visits is marked, ranging from 48 percent in the Southern Region to 81 percent among women in the Western Region. Similar patterns are observed for receipt of routine components of antenatal care such as measuring weight and blood pressure, and taking blood and urine and blood samples for testing, although the difference between urban and rural areas in the proportion of women weighed is minimal.

9.4 TETANUS TOXOID INJECTIONS

Neonatal tetanus is a leading cause of neonatal death in developing countries where a high proportion of deliveries are conducted at home or in places where hygienic conditions may be poor. Tetanus toxoid (TT) immunization is given to pregnant women to prevent neonatal tetanus. If a woman has received no previous TT injections, for full protection a pregnant woman needs two doses of TT during pregnancy. However, if a woman was immunized before she became pregnant, she may require one or no TT injections during pregnancy, depending on the number of injections she has ever received and the timing of the last injection. For a woman to have lifetime protection, a total of five doses is required. The 2008 SLDHS collected data on whether women who had a live birth in the five years preceding the survey received at least two TT injections, and whether the pregnancy for the most recent live birth in the past five years was protected against neonatal tetanus.

Table 9.4 shows that most women (75 percent) in Sierra Leone received two or more tetanus injections during pregnancy and that 79 percent of births were protected against neonatal tetanus. There is little variation in tetanus toxoid coverage by age at birth and birth order; however, there are differences by residence. For example, 87 percent of births in urban areas are protected against tetanus, compared with 76 percent of births in rural areas. Regarding regional differences, the Northern Region has the lowest proportion of births protected against neonatal tetanus (69 percent), compared with other regions (87-88 percent).

Education of the mother is positively related to tetanus toxoid coverage in Sierra Leone; 89 percent of births among women with secondary or higher education are protected against neonatal tetanus, compared with 76 percent of births among women with no education. Similarly, women in the highest (richest) wealth quintile are more likely to have received two or more TT injections during their last pregnancy, and to have had their last live birth be protected against neonatal tetanus, than women in the lower wealth quintiles.

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, Sierra Leone 2008			
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	74.6	78.0	669
20-34	74.2	78.9	2,780
35-49	75.5	80.7	654
Birth order			
1	75.0	78.6	781
2-3	73.3	78.3	1,506
4-5	75.7	80.0	985
6+	74.6	79.7	831
Residence			
Urban	82.5	87.3	1,183
Rural	71.2	75.7	2,920
Region			
Eastern	83.8	87.8	809
Northern	64.6	69.2	1,869
Southern	83.3	87.2	783
Western	80.8	86.8	642
Mother's education			
No education	71.6	76.2	3,051
Primary	81.5	85.4	515
Secondary or higher	84.3	89.0	537
Wealth quintile			
Lowest	69.1	72.7	885
Second	74.4	77.8	849
Middle	70.7	76.8	893
Fourth	76.3	81.1	793
Highest	84.3	89.3	683
Total	74.5	79.0	4,103

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.

9.5 PLACE OF DELIVERY

The key objective of maternal and child health services is to provide safe delivery services. Increasing the number of babies delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Another important component of efforts to reduce the health risks to mothers and children is to increase the proportion of babies delivered under the supervision of a trained health provider. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infections that can cause sickness or death to either the mother or the baby. Table 9.5 shows the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics.

The data show that the majority (72 percent) of births in Sierra Leone are delivered at home and 25 percent are delivered in health facilities, mostly public sector facilities. Delivery at a health facility is common for first births and for mothers who received antenatal care, especially if they had four or more ANC visits. It is also higher for births in urban areas than for births in rural areas; 40 percent of babies born in urban areas are delivered in a health facility, compared with 19 percent of those born in rural areas. The proportion of babies born in a health facility is generally low in most of

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, Sierra Leone 2008

Background characteristic	Health facility			Home	Other	Missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector							
Mother's age at birth									
<20	24.8	2.1	69.9	1.5	1.7	100.0	26.9	977	
20-34	22.0	2.8	71.5	0.8	2.9	100.0	24.8	4,002	
35-49	19.8	1.0	75.5	0.2	3.5	100.0	20.8	832	
Birth order									
1	25.7	4.7	65.1	0.8	3.7	100.0	30.4	1,148	
2-3	22.9	2.6	72.0	1.0	1.6	100.0	25.4	2,165	
4-5	21.1	1.5	73.5	0.7	3.3	100.0	22.6	1,405	
6+	18.6	0.8	76.3	0.8	3.5	100.0	19.4	1,092	
Antenatal care visits¹									
None	1.4	0.2	94.9	1.1	2.4	100.0	1.6	274	
1-3	14.3	0.6	84.3	0.6	0.2	100.0	14.9	803	
4+	27.2	3.7	68.1	0.7	0.2	100.0	30.9	2,303	
Don't know/missing	27.7	3.4	62.3	1.3	5.2	100.0	31.1	723	
Residence									
Urban	32.2	7.3	57.4	0.3	2.8	100.0	39.5	1,585	
Rural	18.5	0.6	77.2	1.1	2.7	100.0	19.0	4,226	
Region									
Eastern	27.4	1.1	69.2	0.0	2.4	100.0	28.5	1,170	
Northern	15.1	0.3	80.2	1.0	3.4	100.0	15.5	2,623	
Southern	31.5	2.1	62.8	1.8	1.8	100.0	33.6	1,187	
Western	24.0	11.3	61.7	0.3	2.8	100.0	35.2	831	
Mother's education									
No education	19.0	0.9	76.1	1.0	3.0	100.0	19.9	4,443	
Primary	32.0	1.8	63.7	0.4	2.1	100.0	33.7	713	
Secondary or higher	33.5	13.0	51.1	0.5	1.9	100.0	46.5	655	
Wealth quintile									
Lowest	16.4	0.5	79.3	1.4	2.4	100.0	16.9	1,327	
Second	20.4	0.8	74.6	1.5	2.7	100.0	21.2	1,220	
Middle	23.0	0.2	73.6	0.4	2.8	100.0	23.2	1,288	
Fourth	25.5	2.1	69.2	0.3	2.9	100.0	27.6	1,102	
Highest	28.0	11.3	57.2	0.4	3.1	100.0	39.3	873	
Total	22.2	2.4	71.8	0.8	2.8	100.0	24.6	5,811	

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

the regions (29 to 35 percent), with the Northern Region being considerably lower (16 percent of births). There is a strong association between mother's level of education and place of delivery; the proportion of births delivered in a health facility is 47 percent among mothers with secondary or higher education, compared with 20 percent among mothers with no education. The association between household wealth status and delivery in a health facility is similarly strong, with the proportion of babies delivered in a health facility ranging from 17 percent in the lowest wealth quintile to 39 percent in the highest quintile.

Regarding home deliveries, births to older women and higher parity women are more likely to occur at home. Similarly, rural births are more likely to be delivered at home than urban births. The proportion of deliveries that occur at home decreases as mother's level of education increases, wealth quintile increases, and the number of ANC visits during pregnancy increases. Women in the Northern Region are substantially more likely to give birth at home (80 percent) than women in other regions (62 to 69 percent).

9.6 ASSISTANCE DURING DELIVERY

In addition to place of delivery, type of assistance during delivery is an important variable influencing the birth outcome and the health of the mother and infant. A skilled birth attendant can reduce the likelihood of sepsis and other complications of delivery. Table 9.6 shows the percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, according to background characteristics.

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 birth assisted by a skilled provider, and the percentage delivered by caesarean-section, according to background characteristics, Sierra Leone 2008

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	MCH aid	Traditional birth attendant	Relative/other	No one	Don't know/missing				
Mother's age at birth											
<20	1.2	29.6	14.1	43.4	9.2	0.9	1.7	100.0	44.8	1.6	977
20-34	1.8	29.5	11.7	44.4	9.2	0.9	2.4	100.0	43.1	1.6	4,002
35-49	1.4	25.9	9.4	48.5	11.0	1.3	2.6	100.0	36.6	1.0	832
Birth order											
1	3.5	31.8	13.3	40.4	7.0	0.5	3.5	100.0	48.6	2.9	1,148
2-3	1.5	29.9	12.7	44.0	9.5	1.2	1.2	100.0	44.2	1.7	2,165
4-5	0.9	28.2	11.2	44.8	11.3	0.9	2.6	100.0	40.3	0.7	1,405
6+	1.0	25.4	8.8	51.1	9.4	1.2	3.0	100.0	35.2	0.7	1,092
Place of delivery											
Health facility	6.3	67.0	25.4	1.1	0.0	0.1	0.1	100.0	98.6	6.1	1,430
Elsewhere	0.1	17.2	7.5	61.0	13.0	1.1	0.1	100.0	24.7	0.0	4,221
Missing	2.2	1.9	2.8	7.3	0.4	4.5	80.8	100.0	6.9	0.0	160
Residence											
Urban	4.7	52.0	10.3	24.9	4.7	0.8	2.7	100.0	66.9	3.2	1,585
Rural	0.5	20.4	12.3	52.3	11.2	1.0	2.2	100.0	33.2	0.9	4,226
Region											
Eastern	0.8	28.5	20.9	45.4	1.7	0.9	1.8	100.0	50.1	0.7	1,170
Northern	0.6	21.1	5.7	52.7	15.7	1.3	2.9	100.0	27.4	0.7	2,623
Southern	1.2	33.6	18.3	38.2	6.6	0.5	1.6	100.0	53.2	1.7	1,187
Western	6.9	48.2	8.6	28.8	4.3	0.9	2.4	100.0	63.7	4.7	831
Mother's education											
No education	0.8	23.6	11.4	49.7	10.8	1.2	2.5	100.0	35.7	0.8	4,443
Primary	1.7	40.5	13.7	35.7	6.6	0.3	1.4	100.0	55.9	1.9	713
Secondary or higher	7.6	53.4	12.1	21.6	2.9	0.4	2.0	100.0	73.1	5.5	655
Wealth quintile											
Lowest	0.7	14.5	12.8	56.8	12.5	1.0	1.7	100.0	28.1	0.7	1,327
Second	0.3	22.7	12.4	48.4	13.0	1.0	2.2	100.0	35.4	0.8	1,220
Middle	0.5	26.6	11.6	48.8	9.2	0.9	2.5	100.0	38.6	0.9	1,288
Fourth	1.5	36.2	11.4	40.0	7.3	1.0	2.7	100.0	49.0	1.4	1,102
Highest	7.0	54.4	10.0	21.9	2.8	1.0	2.9	100.0	71.4	4.9	873
Total	1.7	29.0	11.7	44.8	9.4	1.0	2.3	100.0	42.4	1.5	5,811

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.

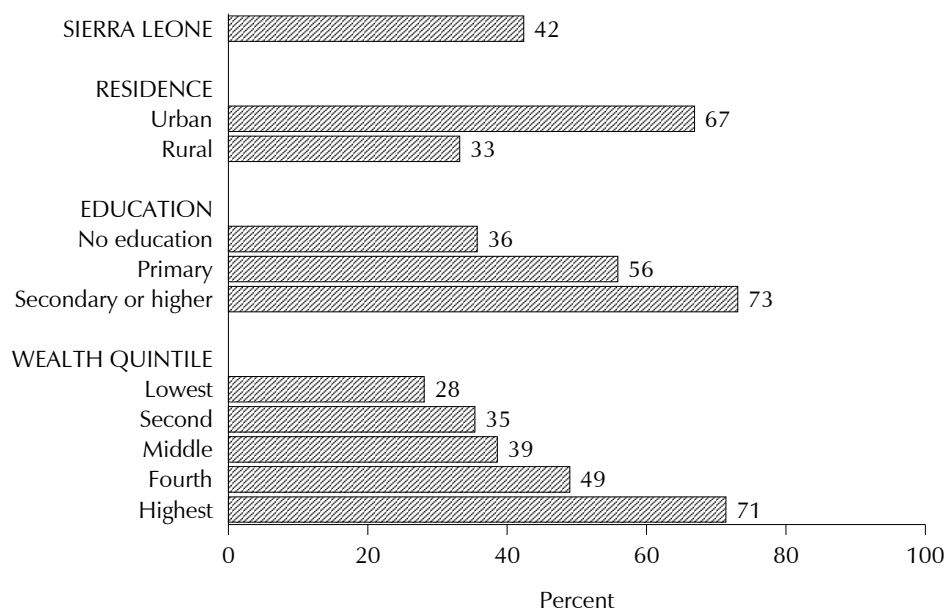
¹ Skilled provider includes doctor, nurse, midwife, and MCH aid.

The data show that 42 percent of births in Sierra Leone are delivered with the assistance of a health professional (i.e., doctor, nurse/midwife, or MCH aid), and 45 percent are delivered by a traditional birth attendant. Nine percent of births (about one in ten) are attended by relatives, and 1 percent of all births are delivered without any assistance at all. Births to mothers younger than age 35 and first births are more likely to be assisted by trained health workers. Almost all births that occur in health facilities are assisted by trained providers. Women in urban areas (67 percent) and women in the Western Region (64 percent) are more likely than other women to be assisted by skilled health care workers at delivery. Women in the Northern Region are the least likely to be attended at delivery by a skilled provider (27 percent).

As expected, mother's education has a positive relationship with the type of delivery care received (Figure 9.1). Births to women with secondary or higher education are more than twice as likely to be assisted by health professionals as births to women with no education (73 and 36 percent, respectively). Similarly, delivery assistance varies by the economic status of women. Births to women in the highest wealth quintile are much more likely to be assisted by health professionals (71 percent) than births to women in the lowest wealth quintile (28 percent).

Table 9.6 shows the prevalence of births by caesarean section. According to the World Health Organization and UNICEF, acceptable rates for caesarean section (C-section) delivery are between 5 and 15 percent. Above 15 percent is considered excessive, while rates below 5 percent indicate that not all women in need are receiving a C-section delivery (UNICEF/WHO/UNFPA, 1997; Althabe and Belizan, 2006). Sierra Leone's C-section rate of 2 percent suggests that not all women in need of a C-section are receiving one. Births in health facilities, births in urban areas, births in the Western Region, and births to better educated and wealthier women are more likely than other births to be delivered by caesarean section.

Figure 9.1 Assistance of Skilled Provider during Childbirth



Sierra Leone, 2008

9.7 POSTNATAL CARE

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, postnatal care is important for both the mother and the child to treat possible complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. It is recommended that all women receive a check on their health within two days of delivery. To assess the prevalence of postnatal care, women who had a birth in the past five years were asked, for their most recent birth, whether they received a health check-up after the delivery, the timing of the first check-up, and the type of health provider performing the postnatal check-up. This information is presented in Tables 9.7 and 9.8 according to background characteristics.

The data show that 58 percent of women in Sierra Leone receive postnatal care within two days after delivery: 38 percent within four hours of delivery, 8 percent 4 to 23 hours after delivery, and 12 percent one to two days after delivery. An additional 5 percent of women receive care 3 to 41 days after delivery, and one-third of mothers (33 percent) do not get any postnatal care.

Table 9.7 Timing of first postnatal check-up

Among women age 15-49 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, Sierra Leone 2008

Background characteristic	Time after delivery of mother's first postnatal check-up						Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/missing	No postnatal check-up ¹		
Mother's age at birth								
<20	39.3	7.2	11.4	5.1	4.8	32.1	100.0	669
20-34	37.5	7.9	12.0	5.3	4.0	33.3	100.0	2,780
35-49	36.6	7.8	13.0	6.2	4.3	32.0	100.0	654
Birth order								
1	41.7	7.9	10.2	4.4	5.2	30.6	100.0	781
2-3	36.1	8.0	11.0	5.2	4.9	34.8	100.0	1,506
4-5	40.4	7.6	11.3	5.9	3.6	31.0	100.0	985
6+	33.5	7.4	16.5	6.3	2.5	33.7	100.0	831
Place of delivery								
Health facility	55.3	12.6	11.2	2.7	6.8	11.4	100.0	1,061
Elsewhere	32.1	6.2	12.5	6.5	3.2	39.5	100.0	2,991
Residence								
Urban	49.6	6.5	12.8	3.2	4.2	23.6	100.0	1,183
Rural	32.9	8.3	11.7	6.4	4.1	36.6	100.0	2,920
Region								
Eastern	58.9	6.9	5.8	3.1	4.0	21.3	100.0	809
Northern	21.6	8.0	15.1	6.6	5.4	43.2	100.0	1,869
Southern	34.9	8.7	14.3	7.3	2.6	32.2	100.0	783
Western	61.1	7.2	8.2	2.8	2.5	18.3	100.0	642
Mother's education								
No education	34.3	7.5	12.1	5.8	4.0	36.3	100.0	3,051
Primary	42.0	7.8	13.8	4.8	4.9	26.8	100.0	515
Secondary or higher	52.8	9.4	10.2	4.0	4.2	19.3	100.0	537
Wealth quintile								
Lowest	30.1	7.2	9.8	6.9	3.1	42.9	100.0	885
Second	31.1	9.5	14.3	6.1	4.3	34.7	100.0	849
Middle	36.0	7.7	11.7	6.1	5.1	33.4	100.0	893
Fourth	37.0	7.3	15.3	5.4	4.7	30.3	100.0	793
Highest	58.7	7.1	8.6	2.0	3.4	20.1	100.0	683
Total	37.7	7.8	12.0	5.4	4.1	32.9	100.0	4,103

Note: total includes 51 women with information missing on place of delivery
¹ Includes women who received a check-up after 41 days

Differences in receipt of postnatal care by age and parity are small; however, the majority (79 percent) of women who deliver in a health facility receive a postnatal check-up within two days of the birth, compared with just half of women who deliver elsewhere.

There are variations in postnatal care by residence and region. Sixty-nine percent of mothers in urban areas receive postnatal care within two days of delivery, compared with only 53 percent of those in rural areas. By region, the proportion of mothers who receive timely postnatal care ranges from 45 percent in the Northern Region to 77 percent in the Western Region.

Mother's level of education and household wealth status are inversely related to the receipt of postnatal care. Seventy-two percent of mothers with secondary or higher education receive postnatal care within two days of delivery, compared with 54 percent of mothers with no education. There are also large differences by wealth quintile; 74 percent of women in the highest wealth quintile receive postnatal care within two days of delivery, compared with 47 percent of women in the lowest wealth quintile.

Table 9.8 shows the distribution of mothers who gave birth in the five years preceding the survey by type of provider of mother's first postnatal check-up for the last live birth, according to background characteristics. In Sierra Leone, 44 percent of mothers receive postnatal care from a

health professional, 22 percent receive postnatal care from a traditional birth attendant, and less than 1 percent receive postnatal care from a community health worker. As mentioned above, 33 percent of women in Sierra Leone do not receive any postnatal care.

Differentials for type of postnatal care provider are similar to those for postnatal care coverage in general. Mothers in urban areas and in the Western Region, mothers with secondary or higher education, and mothers in the highest wealth quintile are more likely to receive postnatal care from a health professional than other women. For example, 63 percent of mothers in urban areas receive postnatal care from health professionals, compared with 37 percent of mothers in the rural areas. Similarly, 68 percent of mothers with secondary or higher education receive postnatal care from health professionals, compared with 38 percent of those with no education. Finally, 67 percent of mothers in the highest wealth quintile receive postnatal care from health professionals, compared with 30 percent of mothers in the lowest quintile.

Table 9.8 Type of provider of first postnatal check-up

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal check-up for the last live birth, according to background characteristics, Sierra Leone 2008

Background characteristic	Type of health provider of mother's first postnatal check-up					Don't know/missing	No postnatal check-up ¹	Total	Number of women
	Doctor/nurse/midwife	MCH aid	Community health worker	Traditional birth attendant	Other				
Mother's age at birth									
<20	29.5	13.9	1.0	22.7	0.0	0.7	32.1	100.0	669
20-34	31.4	13.1	0.5	21.1	0.1	0.6	33.3	100.0	2,780
35-49	27.7	16.4	0.6	22.6	0.0	0.6	32.0	100.0	654
Birth order									
1	33.9	12.9	1.2	21.1	0.1	0.1	30.6	100.0	781
2-3	31.6	12.5	0.5	19.7	0.1	0.9	34.8	100.0	1,506
4-5	29.7	14.3	0.2	24.0	0.1	0.7	31.0	100.0	985
6+	26.2	16.1	0.7	22.8	0.0	0.5	33.7	100.0	831
Place of delivery									
Health facility	65.1	20.8	0.3	1.4	0.0	1.1	11.4	100.0	1,061
Elsewhere	18.7	11.5	0.7	29.1	0.1	0.4	39.5	100.0	2,991
Residence									
Urban	53.9	8.9	0.0	12.3	0.2	1.0	23.6	100.0	1,183
Rural	21.0	15.7	0.8	25.4	0.0	0.5	36.6	100.0	2,920
Region									
Eastern	27.9	17.5	0.2	32.4	0.2	0.6	21.3	100.0	809
Northern	20.9	12.7	0.9	22.0	0.0	0.3	43.2	100.0	1,869
Southern	35.5	17.6	0.6	13.0	0.0	1.0	32.2	100.0	783
Western	55.7	7.4	0.1	17.2	0.1	1.1	18.3	100.0	642
Mother's education									
No education	24.1	14.3	0.7	24.0	0.1	0.5	36.3	100.0	3,051
Primary	40.7	13.6	0.3	18.4	0.0	0.3	26.8	100.0	515
Secondary or higher	57.1	10.9	0.3	10.9	0.2	1.3	19.3	100.0	537
Wealth quintile									
Lowest	13.5	16.5	1.1	25.3	0.0	0.7	42.9	100.0	885
Second	23.2	17.6	0.2	24.0	0.0	0.4	34.7	100.0	849
Middle	28.0	12.4	0.9	25.0	0.0	0.3	33.4	100.0	893
Fourth	35.2	13.6	0.7	19.7	0.1	0.5	30.3	100.0	793
Highest	59.4	7.3	0.0	11.6	0.2	1.4	20.1	100.0	683
Total	30.5	13.7	0.6	21.6	0.1	0.6	32.9	100.0	4,103

Note: total includes 51 women with information missing on place of delivery
¹ Includes women who received a check-up after 41 days

9.8 PROBLEMS IN ACCESSING HEALTH CARE

Many factors can prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery. In the 2008 SLDHS, women were asked whether each of the following factors would be a big problem or not a big problem in seeking medical care for themselves: getting permission to go for treatment, getting money for treatment, distance to a health facility, having to take transportation, concern that there may not be a health provider, and concern that there may be no drugs available.

Table 9.9 shows that more than half of Sierra Leonean women reported that the major problem they face in accessing health care for themselves is getting money for treatment (80 percent). About half of women (49 to 53 percent) cited the problems: distance to health facility, the need to take transport, and concern that no drugs are available. More than one-third (37 percent) of women

Table 9.9 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Sierra Leone 2008

Background characteristic	Problems in 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	At least one problem accessing health care	
Age										
15-19	11.9	76.8	49.2	46.1	26.2	23.7	39.5	47.6	86.3	1,198
20-34	7.9	80.0	54.0	50.7	19.5	20.5	35.8	49.1	89.4	3,873
35-49	5.9	81.8	53.1	50.9	18.1	20.0	36.5	48.7	89.7	2,303
Number of living children										
0	11.7	74.4	46.7	43.1	23.4	23.3	38.5	47.6	84.5	1,592
1-2	8.0	78.8	52.9	50.1	20.3	20.3	36.3	48.1	88.0	2,639
3-4	5.9	82.2	55.4	54.1	18.9	20.4	36.1	50.1	91.1	1,954
5+	6.0	86.8	57.2	52.3	17.8	19.4	35.7	49.3	93.8	1,189
Marital status										
Never married	11.1	72.6	44.0	39.6	22.4	23.0	39.9	47.2	82.1	1,399
Married or living together	7.3	81.5	55.6	53.2	19.8	20.4	35.7	49.1	90.6	5,525
Divorced/separated/widowed	5.6	84.6	47.7	43.7	17.6	19.0	38.2	49.1	89.8	450
Employed last 12 months										
Not employed	10.5	74.0	47.6	43.7	23.5	23.7	40.7	50.2	82.5	1,705
Employed for cash	6.4	72.8	44.8	41.6	15.0	17.1	34.5	45.1	84.5	1,330
Employed not for cash	7.3	84.8	57.7	55.1	20.5	20.9	35.7	49.3	93.1	4,286
Missing	12.0	66.6	39.7	55.0	11.4	17.7	34.7	45.4	77.7	53
Residence										
Urban	8.2	68.2	36.9	33.1	17.4	16.7	32.3	41.5	79.0	2,655
Rural	7.8	86.7	61.9	59.6	21.7	23.2	39.1	52.8	94.6	4,719
Region										
Eastern	10.8	83.8	58.4	57.5	25.6	20.4	48.8	59.0	92.2	1,325
Northern	6.1	88.0	59.7	56.3	17.9	20.7	32.9	47.6	94.2	3,001
Southern	8.5	79.9	51.8	49.9	24.2	32.2	46.5	61.1	92.8	1,542
Western	8.4	60.9	35.7	31.1	15.6	9.9	23.3	29.2	71.8	1,506
Education										
No education	7.6	85.5	59.5	57.1	20.7	22.0	37.8	51.4	93.2	4,860
Primary	9.3	80.1	44.9	42.2	21.9	22.3	35.7	44.9	88.5	960
Secondary or higher	7.9	62.6	37.3	32.6	17.3	16.4	33.7	42.6	76.0	1,554
Wealth quintile										
Lowest	8.3	89.5	68.0	65.4	26.3	27.3	43.0	56.3	96.2	1,382
Second	8.4	87.5	61.1	60.0	20.0	22.6	37.5	51.2	95.4	1,368
Middle	6.5	87.0	59.6	57.1	19.6	20.4	37.6	52.3	95.0	1,428
Fourth	8.6	80.7	46.8	42.7	20.3	20.5	36.1	48.1	89.9	1,472
Highest	7.8	60.1	34.1	30.2	15.8	14.9	30.4	38.1	72.3	1,723
Total	7.9	80.0	52.9	50.0	20.2	20.8	36.6	48.7	89.0	7,374

Note: Total includes 53 women with information missing on employment.

mentioned concern that a health provider may not be available at a health facility as a serious problem. Only 8 percent of women reported that getting permission to go for treatment was a serious problem. The vast majority (89 percent) of women cited at least one of the specified factors as a serious problem in accessing health care.

Younger women (age 15-19), women with no children, women who have never married, and women who are not employed are less likely to report any of the factors as a serious problem in accessing health care than other women. Women in urban areas and those in the Western Region are less likely than women in rural areas and women in other regions to cite at least one factor as a serious problem. The proportion of women who reported one or more of the factors as a serious problem in accessing health care decreases with increasing level of education and wealth quintile.

Regarding specific problems, getting money for treatment appears to be a bigger issue in the Northern and Eastern regions and among the least educated and poorest women, while concern that there are no drugs available is cited particularly by women in the Southern and Eastern regions.

This chapter, which deals with child health in Sierra Leone, presents the findings on neonatal conditions (birth weight and size at birth), children's vaccination status, and treatment practices for the three major childhood illnesses: acute respiratory infection (ARI), fever, and diarrhoea. Information on children's birth weight and size, treatment practices, and contact with health facilities when children are sick paves the way to strategic planning, designing, and implementation of programmes aimed at reducing morbidity and mortality among children under five years of age.

10.1 CHILD'S SIZE AT BIRTH

A child's birth weight and size at birth are important indicators of vulnerability to the risk of childhood illnesses and death. Children whose birth weight is less than 2.5 kilograms, or children reported to be 'very small' or 'smaller than average' are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight, if available, was recorded in the questionnaire from either a written record or the mother's recall. Because birth weight may not be known for many babies, the mother's estimate of size at birth was also obtained. Although size estimate is subjective, it can be useful as a proxy for the weight of the child. Table 10.1 presents information on child's weight and size at birth according to background characteristics.

Birth weights were reported for only 33 percent of all births in the five years preceding the survey. Because these births are unlikely to be representative of all births (i.e., more urban, higher wealth status, etc.), the patterns of birth weight by background characteristics are likely to be biased.

The data on reported size of child at birth show only small differences by background characteristics. Overall, births to the youngest women, births to women having their first child, births to women who smoke, and births in rural areas are less likely to be reported as 'average or larger' in size. The Southern Region has the lowest proportion of babies reported as 'average or larger,' and the Western Region has the highest proportion. The proportion of births reported as 'average or larger' size increases with level of education and household wealth quintile, although the differences are not large.

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; percentage of all births with a reported birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Sierra Leone 2008

Background characteristic	Percent distribution of births with a reported birth weight of:		Total	Number of births	Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth				Total	Number of births
	Less than 2.5 kg	2.5 kg or more				Very small	Smaller than average	Average or larger	Don't know/missing		
Mother's age at birth											
<20	15.7	84.3	100.0	330	33.8	10.1	15.9	69.1	4.9	100.0	977
20-34	9.5	90.5	100.0	1,326	33.1	6.1	12.4	76.3	5.2	100.0	4,002
35-49	12.4	87.6	100.0	255	30.6	7.2	11.6	75.5	5.7	100.0	832
Birth order											
1	15.8	84.2	100.0	412	35.9	9.3	16.6	68.2	5.9	100.0	1,148
2-3	8.7	91.3	100.0	730	33.7	6.6	12.0	76.6	4.8	100.0	2,165
4-5	9.9	90.1	100.0	440	31.3	6.5	12.2	76.5	4.8	100.0	1,405
6+	11.4	88.6	100.0	330	30.2	5.8	11.6	76.9	5.7	100.0	1,092
Mother's smoking status											
Smokes cigarettes/tobacco	10.3	89.7	100.0	194	34.0	7.2	13.9	71.9	7.0	100.0	571
Does not smoke	11.1	88.9	100.0	1,705	32.7	7.0	12.8	75.4	4.9	100.0	5,209
Residence											
Urban	9.5	90.5	100.0	696	43.9	5.2	11.6	78.5	4.6	100.0	1,585
Rural	11.8	88.2	100.0	1,216	28.8	7.6	13.3	73.6	5.4	100.0	4,226
Region											
Eastern	10.2	89.8	100.0	458	39.2	6.5	13.2	74.5	5.8	100.0	1,170
Northern	14.5	85.5	100.0	528	20.1	6.9	11.8	77.4	3.9	100.0	2,623
Southern	9.9	90.1	100.0	528	44.5	8.8	15.2	67.5	8.5	100.0	1,187
Western	8.5	91.5	100.0	398	47.8	5.3	12.4	78.6	3.8	100.0	831
Mother's education											
No education	10.8	89.2	100.0	1,299	29.2	7.1	12.4	74.9	5.7	100.0	4,443
Primary	9.5	90.5	100.0	276	38.8	7.8	15.6	73.1	3.4	100.0	713
Secondary or higher	12.7	87.3	100.0	336	51.3	5.2	13.3	77.5	4.0	100.0	655
Wealth quintile											
Lowest	13.2	86.8	100.0	347	26.2	9.1	15.8	68.9	6.2	100.0	1,327
Second	9.6	90.4	100.0	367	30.1	7.4	11.9	75.2	5.4	100.0	1,220
Middle	13.4	86.6	100.0	383	29.7	6.9	11.8	76.2	5.1	100.0	1,288
Fourth	9.4	90.6	100.0	386	35.0	5.6	12.4	77.5	4.5	100.0	1,102
Highest	9.5	90.5	100.0	429	49.1	4.8	11.9	78.7	4.5	100.0	873
Total	11.0	89.0	100.0	1,911	32.9	7.0	12.9	75.0	5.2	100.0	5,811

Note: Total for reported birth weight includes 12 births with information missing on mother's smoking status. Total for size of child at birth includes 30 births with information missing on mother's smoking status.

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

10.2 VACCINATION COVERAGE

Universal immunization of children against the six vaccine-preventable diseases—namely, tuberculosis, diphtheria, whooping cough (pertussis), tetanus, polio, and measles—is crucial to reducing infant and child mortality. Differences in vaccination coverage among sub-groups of the population are useful for programme planning and targeting resources to areas most in need.

The 2008 Sierra Leone Demographic and Health Survey (SLDHS) collected information on vaccination coverage for all living children born in the five years preceding the survey. According to the guidelines developed by the World Health Organization, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG); three doses each of diphtheria,

pertussis, and tetanus (DPT) and polio vaccines; and a measles vaccination by the age of 12 months. BCG should be given at birth or at first clinical contact; DPT and polio require three vaccinations at approximately 6, 10, and 14 weeks of age; and measles should be given at or soon after reaching 9 months of age.

Information on vaccination coverage was collected in two ways in the SLDHS: from vaccination cards shown to the interviewer and from mothers' verbal reports. If the cards were available, the interviewer copied the vaccination dates directly onto the questionnaire. When there was no vaccination card for the child or if a vaccine had not been recorded on the card as being given, the respondent was asked to recall the vaccinations given to her child. Vaccination cards were seen by interviewers for less than two-thirds (60 percent) of the children.

Table 10.2 shows the percentage of children age 12-23 months who received the various vaccinations by source of information, that is, from the vaccination card or mother's report. This is the youngest cohort of children who have reached the age by which they should be fully vaccinated.

Source of information	BCG	DPT			Polio ¹				Measles	All basic vaccinations ²	No vaccinations	Number of children
		1	2	3	0	1	2	3				
Vaccinated at any time before survey												
Vaccination card	58.9	55.4	52.5	45.5	53.0	53.4	50.6	43.5	40.2	34.5	0.2	636
Mother's report	23.2	21.4	18.3	14.8	18.8	22.2	18.3	6.2	19.6	5.3	15.4	424
Either source	82.0	76.8	70.8	60.3	71.8	75.6	68.9	49.6	59.7	39.8	15.6	1,060
Vaccinated by 12 months of age³												
	80.4	75.4	67.1	54.6	70.1	74.1	65.3	44.8	45.8	30.5	17.1	1,060

Note: DPT is given as part of the pentavalent (five-component) DTP-HepB+Hib formulation: diphtheria, pertussis, and tetanus (DPT), hepatitis B and Haemophilus influenzae type b conjugate vaccines.

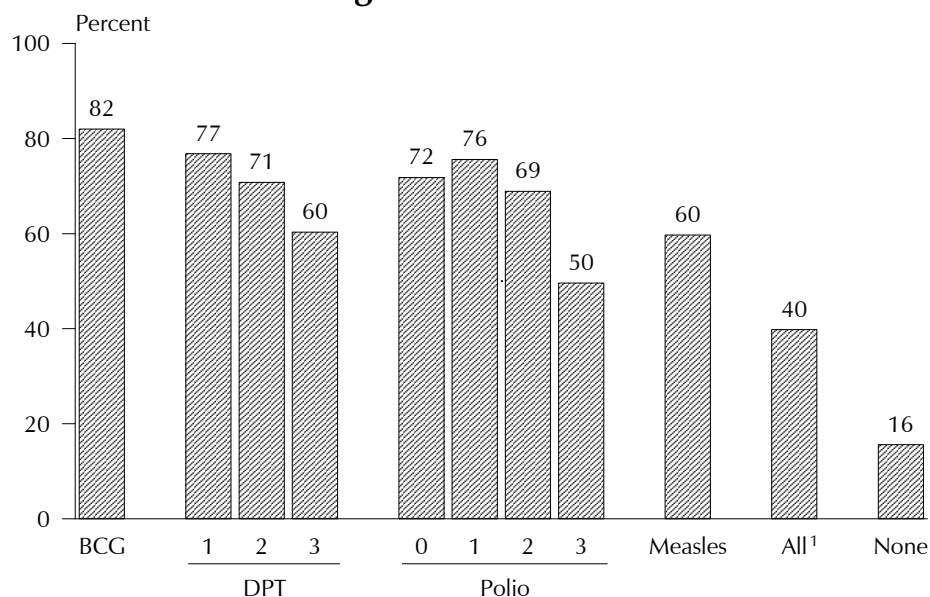
¹ Polio 0 is the polio vaccination given at birth.

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.

According to information from both the vaccination card and the mothers' reports, overall only 40 percent of children age 12-23 months are fully vaccinated (BCG, measles, and three doses each of DPT and polio). Looking at coverage for specific vaccines, 82 percent of children have received the BCG vaccination, 77 percent the first DPT dose, and 76 percent the first polio dose (Polio 1). Coverage declines for subsequent doses, with only 60 percent of children receiving the recommended three doses of DPT and 50 percent receiving all three doses of polio (Figure 10.1). These figures reflect dropout rates of 21 percent for DPT and 34 percent for polio; the dropout rate represents the proportion of children who received the first dose of a vaccine but did not receive the third dose. The proportion of children vaccinated against measles is 60 percent. Sixteen percent of children have received no vaccinations at all.

Figure 10.1 Vaccination Coverage among Children Age 12-23 Months

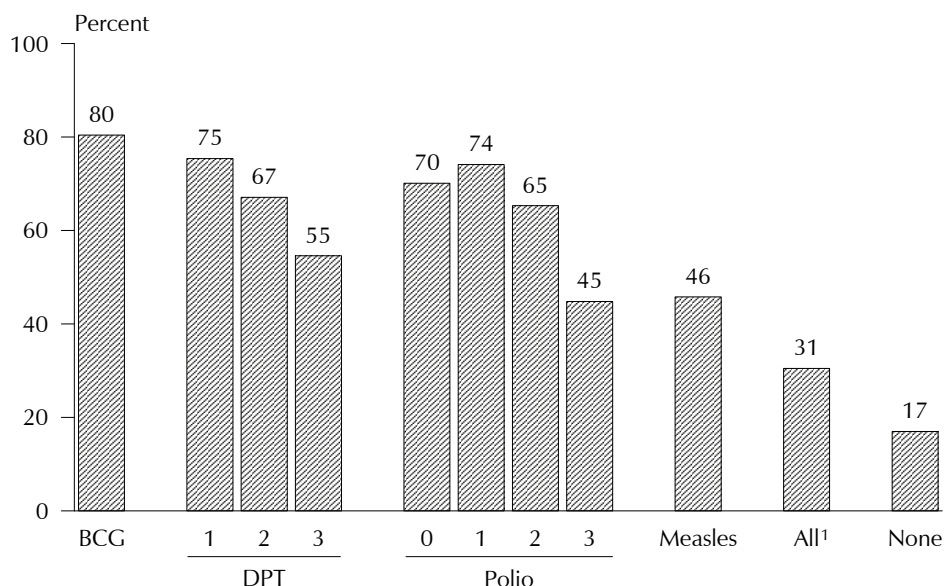


¹ Includes BCG, measles, and three doses each of DPT and polio vaccine (excluding polio 0)

Sierra Leone, 2008

Vaccinations are most effective when given at the proper age; thus, it is recommended that children complete the schedule of immunizations during their first year of life, i.e. by 12 months of age. Overall, only 31 percent of children age 12-23 months had all the recommended vaccinations before their first birthday (Figure 10.2).

Figure 10.2 Vaccination Coverage during the First Year of Life among Children Age 12-23 Months



¹ Includes BCG, measles, and three doses each of DPT and polio vaccine (excluding polio 0)

Sierra Leone, 2008

Table 10.3 shows vaccination coverage among children age 12-23 months by background characteristics. A slightly higher proportion of girls than boys received all the basic vaccinations (41 percent for females, compared with 39 percent for males). The data also show that, in general, the proportion of children fully immunized tends to increase somewhat as birth order increases, ranging

from 41 percent of first births to a high of 46 percent among births of order four or higher. However, the lowest proportion of children fully immunized is among births of order two or three (33 percent).

There is no difference by urban-rural residence: 40 percent of both urban and rural children receive all the basic childhood vaccinations. Vaccination coverage varies by region, ranging from 33 percent of children fully immunized in the Northern Region to 47 percent of children in the Eastern Region. Children whose mothers have no education (38 percent) are less likely to be fully vaccinated than children whose mothers have reached primary or secondary school (46 and 48 percent, respectively). Differences in the proportion of children fully immunized by wealth quintiles are small.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Sierra Leone 2008

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	3					
Sex													
Male	84.8	78.5	71.0	60.6	73.0	77.5	69.2	49.2	58.8	39.0	13.8	60.9	526
Female	79.3	75.2	70.6	59.9	70.5	73.8	68.6	50.1	60.7	40.7	17.3	59.1	535
Birth order													
1	82.3	77.6	72.6	61.9	69.9	74.6	66.4	49.9	61.2	40.5	16.0	56.7	197
2-3	81.6	74.8	67.4	54.9	74.5	74.6	67.9	43.2	55.2	33.1	16.7	57.3	418
4-5	81.1	76.7	71.3	62.7	69.1	77.4	70.1	51.5	61.9	45.8	15.7	62.5	261
6+	84.1	80.6	75.6	67.5	71.2	76.5	72.2	61.3	65.3	45.8	12.4	66.0	185
Residence													
Urban	89.0	83.3	78.7	69.8	81.8	84.7	78.7	53.4	64.5	40.4	10.4	58.3	269
Rural	79.7	74.6	68.0	57.0	68.4	72.5	65.5	48.4	58.1	39.6	17.3	60.6	791
Region													
Eastern	88.7	85.1	75.9	66.5	81.4	84.3	74.5	56.7	63.2	47.4	10.1	66.9	225
Northern	75.2	69.1	62.5	49.1	62.0	64.4	57.8	42.1	51.7	33.1	21.4	56.9	473
Southern	82.6	77.6	74.7	67.7	74.1	81.4	76.0	58.2	66.3	45.2	15.2	63.1	227
Western	93.8	88.7	84.5	76.7	85.8	90.9	86.3	49.9	71.1	41.6	5.0	54.1	135
Mother's education													
No education	78.9	72.6	66.4	56.3	67.2	72.0	64.7	47.1	56.3	37.6	18.3	59.6	803
Primary	91.1	87.7	81.4	70.5	83.3	87.0	80.3	57.9	67.1	46.0	8.4	62.7	146
Secondary or higher	93.0	93.0	88.6	75.9	89.6	86.8	84.2	56.9	75.0	48.0	5.7	59.5	111
Wealth quintile													
Lowest	78.2	74.3	66.5	55.0	64.1	71.9	63.2	45.2	55.7	39.0	19.3	58.2	253
Second	80.3	72.8	67.0	58.6	69.7	68.8	63.4	51.0	61.8	40.5	16.2	64.2	222
Middle	84.2	78.1	69.4	62.2	73.4	76.9	67.5	51.4	58.5	39.3	13.5	61.1	210
Fourth	82.3	76.4	73.0	57.8	75.6	80.1	74.7	52.2	57.4	41.0	15.9	58.4	217
Highest	87.4	85.1	81.7	72.0	79.4	83.4	79.6	48.9	68.2	39.5	11.1	57.7	158
Total	82.0	76.8	70.8	60.3	71.8	75.6	68.9	49.6	59.7	39.8	15.6	60.0	1,060

Note: DPT is given as part of the pentavalent (five-component) DTP-HepB+Hib formulation: diphtheria, pertussis, and tetanus (DPT), hepatitis B and Haemophilus influenzae type b conjugate vaccines.

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)

10.3 TRENDS IN VACCINATION COVERAGE

Table 10.4 is based on children age 12-59 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 programme over time.

The survey data show that there has been a marked improvement in vaccination coverage in the five years preceding the survey. For example, only 17 percent of children age 12-23 months have received no vaccinations, compared with 32 percent of children age 48-59 months. The table also shows that 31 percent of children age 12-23 months were fully immunized by 12 months of age, compared with only 19 percent of children age 48-59 months. Similarly, vaccination cards were seen by interviewers for 60 percent of children age 12-23 months, compared with 30 percent of children age 48-59 months.

Table 10.4 Vaccinations in first year of life

Percentage of children age 12-59 months at the time of the survey who received specific vaccines by 12 months of age, and percentage with a vaccination card, by current age of child, Sierra Leone 2008

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	3					
12-23	80.4	75.4	67.1	54.6	70.1	74.1	65.3	44.8	45.8	30.5	17.1	60.0	1,060
24-35	75.6	69.7	61.6	47.6	62.8	69.8	60.1	39.1	35.7	22.6	21.8	46.2	939
36-47	67.2	60.8	52.8	38.3	56.6	61.9	51.8	27.8	34.6	17.5	30.4	30.6	984
48-59	66.8	59.9	51.0	38.5	56.1	63.0	50.3	28.1	34.0	19.0	32.0	29.6	904
12-59	73.2	67.4	59.4	46.0	62.0	68.1	57.9	35.7	39.0	23.0	24.5	42.1	3,887

Note: DPT is given as part of the pentavalent (five-component) DTP-HepB+Hib formulation: diphtheria, pertussis, and tetanus (DPT), hepatitis B and Haemophilus influenzae type b conjugate vaccines. 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.

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)

10.4 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is among the leading causes of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the 2008 Sierra Leone DHS survey, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill in the two weeks preceding the survey with a cough accompanied by short, rapid breathing that the mother considered to be chest-related. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective in the sense that they are based on the mother's perception of illness without validation by medical personnel.

Table 10.5 shows that 7 percent of children under age five years were reported to have had a cough with short rapid breathing (that was not just due to a blocked or runny nose) in the two weeks preceding the survey. Prevalence of ARI peaks among children age 12-23 months (8 percent). Children in rural areas (7 percent) are more likely than children in urban areas (4 percent) to have symptoms of ARI. Children in the Northern and Southern regions (8 and 7 percent, respectively) are more likely to have symptoms of ARI than children in the Eastern (5 percent) and Western (3 percent) regions.

More than four in ten children (46 percent) with symptoms of ARI were taken to a health facility or provider for treatment. Less likely to be taken for treatment were children age 24-35 months, girls, children in rural areas, children whose mothers have less education, and children in households in the lowest wealth quintile. Only 23 percent of children living in the Eastern Region were taken to a provider, compared with 71 percent of children in the Southern Region.

Treatment with antibiotics can often ameliorate the symptoms of ARI and can save lives. In the SLDHS, only 27 percent of children under five with symptoms of ARI were treated with antibiotics. Children in urban areas were substantially more likely than those in rural areas to be given antibiotics for symptoms of ARI (41 and 25 percent, respectively). The proportion treated with antibiotics was also higher among children living in the Western Region, children whose mothers have secondary or higher education, and children in households in the highest wealth quintile.

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 for whom advice or treatment was sought from a health facility or provider and percentage who received antibiotics as treatment, according to background characteristics, Sierra Leone 2008					
Background characteristic	Children under five		Children under five with symptoms of ARI		
	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider ²	Percentage who received antibiotics	Number of children
Age in months					
<6	5.7	692	(45.3)	(54.7)	40
6-11	6.6	635	(55.8)	(28.6)	42
12-23	8.0	1,060	44.5	22.5	85
24-35	6.7	939	37.9	31.9	63
36-47	6.4	984	44.3	21.9	63
48-59	4.9	904	(52.9)	(11.7)	44
Sex					
Male	6.5	2,590	48.5	29.3	169
Female	6.4	2,623	43.1	25.2	167
Mother's smoking status					
Smokes cigarettes/tobacco	7.7	508	(51.3)	(26.2)	39
Does not smoke	6.4	4,679	45.1	27.4	297
Cooking fuel					
Electricity or gas	*	1	na	na	0
Kerosene	*	4	na	na	0
Coal/lignite	(0.0)	23	na	na	0
Charcoal	2.5	506	*	*	13
Wood/straw ³	6.9	4,666	44.9	26.2	324
Residence					
Urban	4.0	1,397	49.8	40.8	56
Rural	7.4	3,817	45.0	24.6	281
Region					
Eastern	4.5	1,067	23.4	18.4	48
Northern	8.1	2,354	41.4	24.9	190
Southern	7.1	1,058	71.2	32.7	75
Western	3.2	735	(45.5)	(46.7)	24
Mother's education					
No education	6.4	3,990	42.2	24.5	256
Primary	7.3	633	(54.0)	(31.4)	46
Secondary or higher	5.9	590	(61.9)	(42.5)	35
Wealth quintile					
Lowest	6.6	1,159	39.2	26.4	76
Second	6.6	1,123	46.4	19.9	74
Middle	8.4	1,157	49.2	26.8	98
Fourth	5.8	996	48.0	23.5	58
Highest	4.0	778	(45.7)	(55.7)	31
Total	6.5	5,213	45.8	27.3	337

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total for symptoms with ARI includes 26 children with information missing on mother's smoking status and 15 children with information missing on cooking fuel.
na = not applicable
¹ Symptoms of ARI (cough accompanied by short, rapid breathing that is chest related) is considered a proxy for pneumonia.
² Excludes pharmacy, shop, and traditional practitioner
³ Includes grass, shrubs, crop residues

10.5 FEVER

Fever is a symptom of malaria and other acute infections in children. Malaria and other illnesses that cause fever contribute to high levels of malnutrition and mortality. While fever can occur year-round, malaria is more prevalent after the end of the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Because malaria is a major contributing cause of death in infancy and early childhood in many developing countries, the presumptive treatment of fever with antimalarial medication is

advocated in many countries where malaria is endemic. Malaria is discussed in greater detail in Chapter 12.

Table 10.6 shows the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by background characteristics. Overall, one in four children under five years was reported to have had a fever in the past two weeks. Fever is most common among children age 6-35 months (26-34 percent). The prevalence of fever is similar for boys and girls and similar in urban and rural areas. Regional differentials are small but show that the proportion of children with fever is highest in the Western Region (29 percent) and lowest in the Eastern Region (23 percent). The prevalence of fever increases slightly with mother's level of education and household wealth quintile.

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 for whom advice or treatment was sought from a health facility or provider, the percentage who received antimalarial drugs, and the percentage who received antibiotic drugs, by background characteristics, Sierra Leone 2008						
Background characteristic	Children under five		Children under five with fever			
	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from health facility or provider ¹	Percentage who received antimalarial drugs	Percentage who received antibiotic drugs	Number of children
Age in months						
<6	21.0	692	41.6	22.1	32.2	145
6-11	33.8	635	53.3	32.4	30.1	215
12-23	29.1	1,060	42.0	28.7	21.1	308
24-35	25.8	939	43.7	32.3	27.9	242
36-47	20.4	984	40.0	29.6	21.4	201
48-59	19.0	904	39.7	33.8	16.7	172
Sex						
Male	25.2	2,590	44.0	30.1	26.9	652
Female	24.1	2,623	43.0	30.1	22.2	631
Residence						
Urban	25.2	1,397	48.5	35.1	36.8	352
Rural	24.4	3,817	41.7	28.2	20.0	931
Region						
Eastern	23.0	1,067	27.1	22.5	10.5	246
Northern	24.2	2,354	41.4	26.4	18.0	569
Southern	24.1	1,058	57.9	43.9	34.6	254
Western	29.1	735	51.0	32.2	46.6	214
Mother's education						
No education	23.5	3,990	39.8	28.5	19.8	936
Primary	27.8	633	50.6	32.4	29.2	176
Secondary or higher	29.0	590	56.7	36.5	46.1	171
Wealth quintile						
Lowest	23.5	1,159	39.1	27.1	19.0	272
Second	24.2	1,123	46.6	29.1	23.3	272
Middle	23.5	1,157	42.0	29.4	17.8	272
Fourth	24.8	996	39.9	28.8	21.8	248
Highest	28.3	778	51.2	37.2	44.8	220
Total	24.6	5,213	43.5	30.1	24.6	1,283

¹ Excludes pharmacy, shop, and traditional practitioner

Less than half (44 percent) of children with fever were taken to a health facility or provider for treatment; 30 percent received antimalarial drugs and 25 percent received antibiotics. Compared with children in other regions, children with fever in the Southern Region (44 percent) were more likely to receive antimalarial drugs, while children in the Western Region (47 percent) were more likely to receive antibiotics. The proportion of children who received these treatments is higher in urban areas and among children whose mothers are better educated and from the highest wealth quintile.

10.6 DIARRHOEAL DISEASE

Dehydration resulting from severe diarrhoea is a major cause of morbidity and mortality among young children, although the condition can easily be treated with oral rehydration therapy (ORT). Exposure to diarrhoea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. When interpreting the findings of the 2008 SLDHS, it should be noted that the prevalence of diarrhoea varies seasonally.

Table 10.7 shows the percentage of children under five with diarrhoea in the two weeks preceding the survey according to selected background characteristics. The table shows that 13 percent of children had diarrhoea in the two weeks before the survey and 3 percent had diarrhoea with blood, a symptom of dysentery.

Diarrhoea prevalence increases with age to peak at 6-11 months (18 percent). This is the age when children start to be weaned and other liquids and foods are introduced that can facilitate the spread of disease-causing microbes. Diarrhoea prevalence remains at 16-17 percent at age 12-35 months, and then falls in older age groups. Diarrhoea prevalence is slightly higher among children in rural areas (14 percent) than children in urban areas (11 percent), and slightly higher in households with a non-improved source of drinking water or type of toilet facility. Children living in the Southern Region (10 percent), and those in the highest wealth quintile (9 percent) are the least likely to have had diarrhoea in the two weeks preceding the survey. Diarrhoea prevalence is higher than average among children living in the Northern Region (16 percent), among children whose mothers have primary education (15 percent), and children living in households in the second wealth quintile (15 percent).

In the 2008 SLDHS, mothers of children who had diarrhoea were asked what was done to treat the illness. Table 10.8 shows the percentage of children with diarrhoea who received specific treatments by background characteristics. Less than half of the children who had diarrhoea in the past two weeks were taken to a health facility or provider (47 percent) for treatment. Children in the Southern Region, children whose mothers had primary or secondary education, and children in households in the higher wealth quintiles were more likely to be taken to a health provider for treatment than other children. Children in the Eastern Region (34 percent) were least likely to be taken for treatment to a health facility or provider.

Table 10.7 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, Sierra Leone 2008

Background characteristic	Diarrhoea in the two weeks preceding the survey		Number of children
	All diarrhoea	Diarrhoea with blood	
Age in months			
<6	7.8	1.1	692
6-11	18.1	3.7	635
12-23	16.5	3.3	1,060
24-35	15.8	3.8	939
36-47	11.7	2.6	984
48-59	7.6	2.2	904
Sex			
Male	13.5	2.9	2,590
Female	12.4	2.8	2,623
Source of drinking water¹			
Improved	11.8	2.7	2,440
Not improved	14.1	2.9	2,762
Toilet facility²			
Improved, not shared	10.3	2.1	570
Not improved or shared	13.3	3.0	4,578
Residence			
Urban	10.9	1.6	1,397
Rural	13.7	3.3	3,817
Region			
Eastern	11.4	2.5	1,067
Northern	15.8	4.1	2,354
Southern	9.9	1.2	1,058
Western	10.7	1.5	735
Mother's education			
No education	12.9	3.1	3,990
Primary	15.0	2.1	633
Secondary or higher	11.5	2.1	590
Wealth quintile			
Lowest	12.8	3.0	1,159
Second	14.5	3.5	1,123
Middle	13.9	3.7	1,157
Fourth	13.1	1.9	996
Highest	9.4	1.4	778
Total	13.0	2.8	5,213

Note: Total includes 11 children with information missing on source of drinking water and 65 children with information missing on type of toilet facility.

¹ See Table 2.7 for definition of categories.

² See Table 2.8 for definition of categories.

Oral rehydration therapy (ORT) involves giving the child with diarrhoea a solution prepared from oral rehydration salts (ORS packets) or a home-made, sugar-salt-water solution. The treatments are simple and effective responses to diarrhoeal illness. Almost nine in ten children (86 percent) with diarrhoea were treated with some form of ORT or increased fluids, and over two-thirds (68 percent) were given a solution prepared using a packet of oral rehydration salts (ORS). The use of ORT to treat diarrhoea is most common among children age 36-47 months, children in the Western Region, children whose mothers have attained the primary level of education, and children in households in the middle wealth quintile.

Antibiotics are generally not recommended for use in treating non-bloody diarrhoea in young children. However, about four in ten children with diarrhoea (41 percent) were treated with antibiotics, with little difference between the treatment of bloody and non-bloody diarrhoea (45 percent, compared with 40 percent). Treatment of diarrhoea with antibiotics was more likely among urban children, children in the Western Region, children whose mothers have secondary or higher education, and children in the highest wealth quintile. Home remedies were given to one-third of children with diarrhoea; 2 percent were given zinc supplements; and 1 percent were given antimotility drugs or intravenous solutions to treat the diarrhoea.

Mothers are encouraged to continue normal feeding practices for children with diarrhoea but to increase the amount of fluids. These practices help to reduce dehydration, and minimize the adverse effects of diarrhoea on the children's nutritional status. Mothers interviewed in the 2008 SLDHS were asked whether they gave their child with diarrhoea less, the same amount, or more fluids and food than usual. Table 10.9 shows the percent distribution of children under five who had diarrhoea in the two weeks preceding the survey by feeding practices, according to background characteristics. More than half (55 percent) of children with diarrhoea were given more to drink than usual, 19 percent are given the same as usual, and 25 percent are given less to drink than usual or nothing at all. It is particularly disconcerting to note that 16 percent of children with diarrhoea are given much less or nothing to drink.

Food intake is curtailed even more than fluid intake during episodes of diarrhoea. Only 15 percent of children with diarrhoea were offered more food than usual, 25 percent were offered the same amount of food, and 55 percent were given less food than usual. These results indicate a gap in practical knowledge of the nutritional requirements of children during episodes of diarrhoea. Further health education efforts are needed to reduce the number of children who become dehydrated or malnourished as a result of diarrhoea.

Overall, 38 percent of children with diarrhoea were given increased fluids and continued feeding, and 57 percent were given increased fluids, continued feeding, and ORT. Differentials in these indicators by background characteristics are not large. Children age 36-47 months, children in the Northern Region, children whose mothers have primary education, and children in households in the fourth wealth quintile, are more likely than other children with diarrhoea to be given increased fluids, continued feeding, and ORT during their last episode of diarrhoea.

Table 10.8 Diarrhoea treatment

Among children under age five who had diarrhoea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration 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, Sierra Leone 2008

Background characteristic	Percentage of children with diarrhoea for whom advice or treatment was sought from a health facility or provider ¹		Oral rehydration therapy (ORT)				Other treatments					Number of children with diarrhoea	
	ORS packets	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	Missing		No treatment
Age in months													
<6	33.4	5.9	69.0	62.3	84.9	42.1	0.0	0.0	0.0	36.4	0.0	8.5	54
6-11	42.5	10.1	71.4	47.0	84.8	43.1	1.0	2.1	0.0	23.3	0.0	4.2	115
12-23	52.5	11.1	72.2	53.2	84.4	42.3	0.0	3.9	2.0	30.3	0.3	6.7	175
24-35	47.4	19.3	69.2	61.7	82.5	40.9	0.7	2.9	0.6	38.1	0.6	8.4	148
36-47	52.8	19.4	85.2	58.5	93.4	35.0	1.7	0.2	0.0	36.8	1.3	3.7	115
48-59	40.9	14.5	72.3	47.5	83.5	43.2	0.0	0.0	0.0	30.9	11.4	3.0	69
Sex													
Male	47.2	14.9	73.8	52.2	85.4	40.9	1.2	1.7	0.3	31.4	1.4	5.2	349
Female	46.8	13.2	72.9	58.1	85.8	41.0	0.0	2.4	1.0	33.6	1.9	6.6	326
Type of diarrhoea													
Non bloody	47.0	11.3	73.4	54.9	85.8	39.8	0.4	1.5	0.7	31.7	1.4	5.8	512
Bloody	45.7	23.5	74.0	55.1	86.2	45.4	1.3	4.2	0.0	35.2	0.0	7.1	147
Residence													
Urban	48.2	7.7	79.1	45.3	86.8	54.7	2.0	2.8	0.0	24.0	0.0	7.5	153
Rural	46.7	15.9	71.7	57.9	85.2	37.0	0.2	1.8	0.8	34.9	2.1	5.4	523
Region													
Eastern	33.5	12.5	68.0	49.1	85.8	46.6	0.0	1.2	0.8	21.7	2.6	2.7	121
Northern	47.9	17.1	74.0	60.5	86.3	35.0	0.0	2.2	0.9	39.5	0.5	7.2	371
Southern	58.4	8.7	71.9	44.7	80.3	44.5	0.9	3.6	0.0	20.3	5.7	5.6	105
Western	48.6	9.5	80.8	52.5	88.4	55.8	4.0	0.6	0.0	31.9	0.0	4.8	79
Mother's education													
No education	44.1	15.5	72.1	55.6	85.3	37.1	0.2	2.2	0.8	32.4	1.3	7.0	513
Primary	56.5	9.4	84.6	60.0	92.4	49.4	1.0	2.2	0.0	31.9	1.0	2.7	95
Secondary or higher	55.7	9.8	67.5	43.7	77.7	58.4	3.1	0.9	0.0	33.8	4.5	2.3	68
Wealth quintile													
Lowest	44.5	14.6	61.0	48.3	74.0	34.1	0.0	0.6	0.0	33.5	4.7	9.1	148
Second	45.9	14.4	74.4	56.1	86.9	37.8	0.6	1.8	2.1	42.3	0.8	4.1	163
Middle	44.9	13.6	75.3	63.7	91.7	42.5	0.0	2.9	0.6	26.0	1.0	5.4	161
Fourth	50.2	17.5	80.2	57.5	89.3	39.8	1.6	3.1	0.0	29.5	0.7	6.3	130
Highest	53.7	7.4	79.9	42.9	86.1	60.6	1.4	1.8	0.0	28.1	0.0	3.8	73
Total	47.0	14.1	73.4	55.1	85.6	41.0	0.6	2.0	0.6	32.5	1.6	5.9	676

Note: ORT includes solution prepared from oral rehydration salts (ORS) and recommended home fluids (RHF). Total includes 10 children with information missing on type of diarrhoea

¹ Excludes pharmacy, shop, and traditional practitioner

10.7 KNOWLEDGE OF ORS PACKETS

As mentioned earlier, a simple and effective response to dehydration caused by diarrhoea is a prompt increase in the child's fluid intake through some form of ORT, which may include the use of a solution prepared from packets of ORS. To ascertain how widespread knowledge of ORS is in Sierra Leone, mothers were asked whether they know about ORS packets.

Table 10.10 shows that knowledge of ORS is widespread in Sierra Leone, with 91 percent of mothers having heard about it. Knowledge of ORS is slightly higher among urban women, and increases with mother's level of education and wealth quintile. Mothers in the Northern Region (86 percent) are less likely to have heard of ORS than mothers in other regions (94-97 percent)

10.8 STOOL DISPOSAL

If human faeces are left uncontained, disease may spread by direct contact or by animal contact with the faeces. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 10.11 presents information on the disposal of the stools of children under five, by background characteristics. The first three columns are considered safe ways to dispose of children's faecal material.

The most commonly used method of disposal of young children's stools is rinsing the stools into a toilet or latrine (55 percent). Other methods of stool disposal include throwing them into the garbage (18 percent), putting or rinsing them into a drain or ditch (12 percent), and burying them (less than 1 percent). Three percent of children use a toilet or latrine; only 1 percent of children's stools are left in the open. Overall, the stools of 58 percent of children are disposed of safely.

There are substantial differentials in the manner of disposal of children's stools. For example, older children are more likely than younger children to have their stools disposed of safely. As expected, urban children and children in households with an improved toilet facility are more likely to have safe disposal of faecal matter than rural children and children in households without such facilities. The proportion of children whose stools are disposed of safely ranges from 43 percent in the Southern Region to 75 percent in the Western Region. By level of education, uneducated mothers are less likely to dispose of their children's stools safely than mothers with secondary or higher education (54 and 77 percent, respectively). Safe disposal of faecal matter increases with household wealth status, from 38 percent in the lowest quintile to 83 percent in the highest wealth quintile.

Table 10.10 Knowledge of ORS packets

Among mothers age 15-49 who gave birth in the five years preceding the survey, percentage who know about ORS packets for treatment of diarrhoea, by background characteristics, Sierra Leone 2008

Background characteristic	Percentage of women who know about ORS packets	Number of women
Age		
15-19	84.6	330
20-24	92.1	804
25-34	91.1	1,917
35-49	91.6	1,051
Residence		
Urban	95.6	1,183
Rural	89.0	2,920
Region		
Eastern	93.6	809
Northern	85.9	1,869
Southern	95.1	783
Western	96.9	642
Education		
No education	89.5	3,051
Primary	93.9	515
Secondary or higher	95.9	537
Wealth quintile		
Lowest	85.0	885
Second	90.8	849
Middle	90.5	893
Fourth	93.3	793
Highest	96.2	683
Total	90.9	4,103

ORS = Oral rehydration salts

Table 10.11 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of child's last faecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Sierra Leone 2008

Background characteristic	Manner of disposal of children's stools								Total	Percentage of children whose stools are disposed of safely	Number of mothers
	Child used toilet or latrine	Put/ rinsed into toilet or latrine	Buried	Put/ rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing			
Age in months											
<6	1.3	41.5	0.0	27.3	18.8	1.5	6.3	3.3	100.0	42.8	642
6-11	1.8	50.1	0.2	17.3	20.0	1.2	6.6	2.8	100.0	52.1	599
12-23	1.5	57.3	1.0	9.0	18.9	1.4	5.2	5.7	100.0	59.7	968
24-35	2.5	61.2	0.8	7.5	19.2	0.9	4.5	3.5	100.0	64.5	673
36-47	5.6	62.7	1.5	4.5	15.3	1.3	6.1	3.0	100.0	69.8	425
48-59	5.8	62.2	0.3	4.6	15.7	1.8	2.9	6.7	100.0	68.3	323
Toilet facility											
Improved, not shared ¹	3.0	78.3	0.0	8.0	5.1	0.7	3.4	1.6	100.0	81.3	380
Not improved or shared	2.5	52.4	0.7	12.9	20.1	1.4	5.6	4.5	100.0	55.6	3,205
Residence											
Urban	4.0	72.9	0.0	10.2	5.4	0.5	2.9	4.0	100.0	77.0	1,009
Rural	2.0	48.2	0.9	13.3	23.4	1.6	6.3	4.2	100.0	51.1	2,621
Region											
Eastern	3.0	52.9	0.6	19.4	16.5	0.3	2.9	4.4	100.0	56.5	729
Northern	1.9	57.6	0.7	10.2	20.3	1.5	3.8	4.1	100.0	60.1	1,657
Southern	1.3	40.3	0.9	11.5	25.8	2.7	13.0	4.4	100.0	42.5	692
Western	5.6	68.9	0.3	10.9	6.0	0.3	4.0	3.9	100.0	74.9	552
Education											
No education	2.2	51.1	0.8	12.7	21.0	1.6	6.1	4.4	100.0	54.1	2,732
Primary	2.7	61.4	0.3	13.0	14.5	0.2	4.7	3.2	100.0	64.5	444
Secondary or higher	4.6	72.7	0.0	10.2	6.5	0.7	1.8	3.6	100.0	77.3	454
Wealth quintile											
Lowest	1.4	35.2	1.4	16.8	30.9	2.2	7.7	4.5	100.0	37.9	795
Second	1.4	48.7	0.3	13.3	23.5	1.2	7.2	4.4	100.0	50.4	766
Middle	2.4	56.8	1.0	11.0	17.5	1.8	5.5	4.0	100.0	60.1	786
Fourth	2.9	64.1	0.3	11.3	12.6	1.0	3.4	4.4	100.0	67.3	701
Highest	5.6	77.6	0.0	8.5	2.9	0.0	2.1	3.3	100.0	83.2	582
Total	2.6	55.1	0.6	12.4	18.4	1.3	5.4	4.2	100.0	58.3	3,630

Note: Total includes 44 mothers with information missing on type of toilet facility

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.

This chapter covers nutritional concerns regarding young children and women age 15-49 in Sierra Leone. Infant and young child feeding practices, including breastfeeding and feeding with solid/semisolid foods, are presented for children. Anthropometric assessment of nutritional status, diversity of foods consumed, micronutrient intake, and vitamin A deficiency are presented for women and children under age five. The chapter also covers anaemia in women and children, and in men age 15-59.

Adequate nutrition is critical to child development. The period from birth to two years of age is important for optimal growth, health, and development. Unfortunately, this period is often marked by growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhoea 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 6 months of age, frequency of feeding solid/semisolid foods, and the diversity of food groups fed to children age 6 to 23 months. A summary indicator that describes the quality of infant and young child (age 6-23 months) feeding practices (IYCF) is included.

A woman's nutritional status has important implications for her health as well as the health of her children. Malnutrition in women results in reduced productivity, increased susceptibility to infections, slow recovery from illness, and heightened risks of adverse pregnancy outcomes. For example, a woman who has poor nutritional status—as indicated by a low body mass index (BMI), short stature, or other micronutrient deficiencies—has a greater risk of obstructed labour, having a baby with low birth weight, dying from postpartum haemorrhage, and sickness for both herself and her baby.

11.1 NUTRITIONAL STATUS OF CHILDREN

Anthropometric data on height and weight collected in the 2008 Sierra Leone Demographic and Health Survey (SLDHS) permit the measurement and evaluation of the nutritional status of young children in Sierra Leone. This evaluation allows identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development, and death.

11.1.1 Measurement of Nutritional Status among Young Children

The 2008 SLDHS collected data on the nutritional status of children by measuring the height and weight of all children under six years of age. Data were collected with the aim of calculating three indices—weight-for-age, height-for-age, and weight-for-height—all of which take age and sex into consideration. Weight measurements were obtained using lightweight, electronic Seca scales with a digital screen designed and manufactured under the guidance of the United Nations Children's Fund (UNICEF). Height measurements were carried out using a measuring board produced by Shorr Productions. Children younger than 24 months were measured lying down (recumbent length) on the board, while standing height was measured for older children.

For the 2008 SLDHS, the nutritional status of children is calculated using new growth standards published by the World Health Organization (WHO) in 2006. These new growth standards were generated using data collected in the WHO Multicentre Growth Reference Study (WHO, 2006). Each of the three nutritional status indicators described below is expressed in standard deviation units from the WHO Child Growth Standards population median. It should be noted that the indices are not comparable to those based on the NCHS/CDC/WHO standards. However, for the purposes of comparison with earlier surveys, Appendix Table C.7 includes indices expressed in standard deviation

units (SD) from the median of the NCHS/CDC/WHO international reference population, which was in use prior to the new WHO Child Growth Standards.

Each of the indices considered in this analysis—height-for-age, weight-for-height, and weight-for-age—provides different information about growth and body composition that is used to assess nutritional status. The height-for-age index is an indicator of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is also affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effects of malnutrition in a population and is not sensitive to recent, short-term changes in dietary intake.

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-scores are below -2 SD are considered thin (wasted) and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below -3 SD are considered severely wasted.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition. Children whose weight-for-age is below -2 SD are classified as underweight. Children whose weight-for-age is below -3 SD are considered severely underweight.

11.1.2 Results of Data Collection

Measurement of height and weight were obtained for all children under age six living in half of the households selected for the SLDHS sample. The results include children who were not biological offspring of the women interviewed in the survey.

Although data were collected for all children under age six, for purposes of comparability, the analysis is limited to children under age five. Valid height and weight measurements were obtained for 82 percent of the 3,378 children under age five in the SLDHS households. Measurements were missing for 8 percent of the children, presumably because the child was not present, the parents refused, or the child was ill. Another 9 percent of children were considered to have implausibly high or low values for the height or weight measures, and an additional 2 percent lacked data on age in months. The following analysis focuses on the children for whom complete and plausible anthropometric and age data were collected. Table 11.1 and Figure 11.1 indicate the percentage of children under age five classified as malnourished according to height-for-age, weight-for-height, and weight-for-age indices, by the child's age and other demographic characteristics.

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, Sierra Leone 2008

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD ¹	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	6.5	13.6	0.0	4.8	15.3	12.0	-0.1	4.5	14.2	10.0	-0.2	240
6-8	11.2	20.5	-0.6	4.6	10.8	11.0	-0.1	6.2	13.8	4.3	-0.6	146
9-11	8.6	18.4	-0.5	9.6	14.9	8.2	-0.5	6.3	17.3	3.0	-0.7	140
12-17	19.8	32.7	-1.2	5.3	11.9	5.9	-0.4	7.7	20.9	3.9	-0.9	341
18-23	20.7	37.6	-1.3	2.4	8.3	4.8	-0.3	4.6	18.5	3.3	-0.8	196
24-35	26.0	47.5	-1.6	3.1	8.8	9.8	0.0	5.5	20.7	5.1	-0.9	486
36-47	24.7	39.6	-1.5	5.0	10.2	9.7	-0.1	9.1	23.6	2.1	-1.0	626
48-59	23.1	43.0	-1.7	2.9	7.6	6.6	-0.1	8.1	25.5	0.7	-1.1	589
Sex												
Male	22.5	38.6	-1.4	4.6	9.9	8.4	-0.2	7.9	23.6	3.4	-0.9	1,341
Female	18.7	34.3	-1.2	3.9	10.5	8.4	-0.1	6.3	18.8	3.5	-0.8	1,423
Birth interval in months²												
First birth ³	18.2	32.0	-1.2	4.4	11.1	6.4	-0.2	5.6	18.5	3.6	-0.8	409
<24	23.5	38.1	-1.5	7.2	13.4	12.0	-0.2	12.3	28.1	3.2	-1.0	276
24-47	22.0	38.9	-1.4	3.9	9.0	7.2	-0.1	6.1	22.7	3.3	-0.9	917
48+	17.6	31.4	-1.1	3.9	10.7	11.7	-0.1	6.3	16.4	4.5	-0.7	547
Size at birth²												
Very small	17.9	36.7	-1.2	6.4	14.9	4.8	-0.5	6.2	27.9	3.5	-1.0	147
Small	23.7	40.5	-1.6	3.9	12.4	8.5	-0.2	11.6	30.3	5.5	-1.1	273
Average or larger	20.1	35.0	-1.3	4.3	9.7	9.1	-0.1	6.1	19.0	3.2	-0.8	1,641
Missing	18.5	29.2	-1.2	5.5	11.0	11.3	0.0	6.3	17.6	5.8	-0.7	88
Mother's interview status												
Interviewed	20.3	35.6	-1.3	4.4	10.4	8.8	-0.1	6.8	21.0	3.6	-0.9	2,149
Not interviewed, but in household	17.6	37.4	-1.3	3.1	10.3	5.0	-0.1	6.8	19.8	3.4	-0.8	137
Not interviewed, and not in the household ⁴	22.5	39.5	-1.3	3.7	9.1	7.6	-0.2	8.3	22.0	2.9	-0.9	476
Mother's nutritional status⁵												
Thin (BMI <18.5)	22.5	37.7	-1.4	8.4	18.0	4.0	-0.7	11.3	29.7	3.2	-1.3	235
Normal (BMI 18.5-24.9)	20.4	36.7	-1.3	3.8	9.2	7.7	-0.2	6.7	21.9	3.1	-0.9	1,309
Overweight/obese (BMI ≥25)	19.7	32.6	-1.3	3.7	9.4	12.3	0.2	5.0	15.5	5.0	-0.6	557
Missing	16.1	32.5	-1.1	7.1	14.1	12.3	-0.2	7.0	17.8	2.4	-0.8	140
Residence												
Urban	13.9	29.7	-0.9	5.4	11.3	10.3	-0.1	6.7	15.7	4.4	-0.6	750
Rural	23.0	38.9	-1.4	3.8	9.8	7.7	-0.2	7.2	23.1	3.2	-0.9	2,014
Region												
Eastern	16.4	33.6	-1.2	4.1	9.9	11.6	0.1	6.3	17.7	5.7	-0.6	507
Northern	22.6	39.5	-1.4	3.3	8.6	5.8	-0.2	7.5	23.5	2.7	-1.0	1,328
Southern	24.0	38.1	-1.4	6.5	14.5	11.7	-0.2	8.7	23.6	3.4	-1.0	546
Western	14.0	26.9	-0.9	4.4	9.9	8.6	-0.2	4.5	13.9	3.4	-0.7	383
Mother's education⁶												
No education	21.2	37.9	-1.4	4.6	10.8	8.0	-0.2	8.1	23.2	3.7	-0.9	1,799
Primary	21.4	31.1	-1.2	6.3	10.1	12.3	0.0	3.0	14.2	2.4	-0.7	253
Secondary or higher	11.2	22.4	-0.8	0.7	7.8	9.0	-0.1	1.2	10.8	4.3	-0.5	226
Wealth quintile												
Lowest	22.6	36.5	-1.3	4.1	11.6	9.5	-0.1	7.0	21.8	3.6	-0.8	605
Second	26.2	43.6	-1.6	3.7	9.0	7.3	-0.2	7.7	25.7	1.4	-1.1	581
Middle	20.7	37.7	-1.3	4.3	9.4	7.8	-0.2	8.0	23.4	3.6	-0.9	616
Fourth	18.9	36.5	-1.3	4.5	9.1	8.8	-0.1	7.1	19.5	4.5	-0.8	590
Highest	11.2	22.7	-0.6	4.8	12.6	8.8	-0.2	4.6	11.8	4.7	-0.5	373
Total	20.6	36.4	-1.3	4.2	10.2	8.4	-0.2	7.1	21.1	3.5	-0.9	2,764

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 adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO standards. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes 2 children with information missing on mother's interview status and 8 children with information missing on mother's education

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

² Excludes children whose mothers were not interviewed

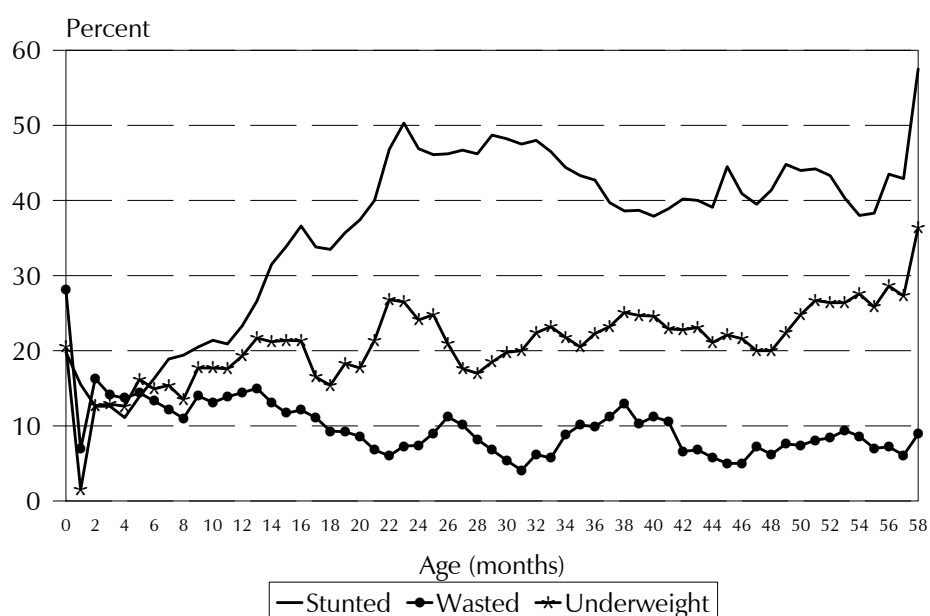
³ First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

⁴ Includes children whose mothers are deceased

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

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

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.

Sierra Leone, 2008

11.1.3 Levels of Malnutrition

The data in Table 11.1 show that 36 percent of children under five are stunted (below -2 SD), with 21 percent being severely stunted (-3 SD). Children age 24-35 months (48 percent) and age 48-59 months (43 percent) are most likely to be stunted, while those under 6 month are the least likely to be stunted (14 percent). Male children are slightly more likely to be stunted than female children (39 percent, compared with 34 percent). The spacing of births has some impact on stunting; children born 24 to 47 months after a prior sibling (39 percent) are more likely to be stunted than children born after a longer birth interval (31 percent). The pattern of stunting by the reported size of the child at birth is not uniform, children reported as being ‘small’ at birth are more likely to be stunted (41 percent) than those described as ‘very small’ at birth (37 percent) or ‘average or larger’ at birth (35 percent). The extent of stunting decreases as mother’s nutritional status increases. The level of stunting is high in the rural areas (39 percent) and lower in the urban areas (30 percent). Stunting varies by region; it is highest in the Northern and Southern regions (40 and 38 percent, respectively) and lowest in the Western Region (27 percent). The percentage of stunted children generally declines with increasing level of mother’s education and wealth quintile. For example, 38 percent of children born to mothers with no education are stunted, compared with 22 percent of children born to mothers with secondary or higher education. Similarly, children in households in the second wealth quintile (44 percent) are almost twice as likely to be stunted as children in households in the highest wealth quintile (23 percent).

The weight-for-height index (wasting) provides information about children’s recent experience with food intake. Wasting represents failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of recent illness or of seasonal variations in food supplies. Overall, 10 percent of children under five are wasted, with 4 percent severely wasted. Wasting is highest among children under 6 months and children age 9-11 months (15 percent each); wasting is lowest among children age 18-23 months and age 48-59 months (8 percent each). The level of wasting varies slightly with birth interval, size at birth, and residence. Wasting is more common in the Southern Region than elsewhere. The extent of wasting decreases as mother’s nutritional status improves.

Table 11.1 highlights another problem among some young children in Sierra Leone: 8 percent are overweight (i.e., more than two standard deviations (+2 SD) above the median for the reference population). By age, the highest proportion of overweight children is among those age under 9 months (11 to 12 percent). Birth interval is also relevant, children born 24 to 47 months after a prior sibling are the least likely to be overweight (7 percent), while those born less than 24 months (short birth interval) or 48 months or more (long birth interval) after a prior sibling are more likely to be overweight (12 percent each). The percentage of overweight children increases as size at birth and mother's nutritional status increase. There is a small difference by urban-rural residence (10 and 7 percent, respectively), and by region, the prevalence of overweight children ranges from 6 percent in the Northern Region to 12 percent each in the Eastern and Southern Regions. Although variation by mother's level of education is not uniform, the highest proportion of overweight children is found among those whose mothers have primary education (12 percent).

Children whose weight-for-age is below minus two standard deviations (-2 SD) from the median of the reference population are considered underweight. The measure reflects the effects of both acute and chronic malnutrition. Overall, 21 percent of Sierra Leonean children are underweight, with 7 percent classified as severely underweight. Peak levels of low weight-for-age are found among children age 48-59 months (26 percent). Male children are more likely to be underweight than female children. The percentage of children who are underweight decreases as birth interval, size at birth and mother's nutritional status increase. Children living in rural areas are more likely to be underweight than urban children (23 and 16 percent, respectively). The proportion of underweight children ranges from 14 percent in the Western Region to 24 percent each in the Northern and Southern regions. Children whose mothers have secondary or higher education (11 percent) are substantially less likely to be underweight than children whose mothers have no education (23 percent). Similarly, children in the wealthiest households (12 percent) are much less likely to be underweight than children in poorer households (20-26 percent).

The nutritional status of children in the 2005 MICS survey (SSL and UNICEF, 2007) was calculated using NCHS/CDC/WHO standards. For the 2008 SLDHS, the nutritional status of children is calculated using new growth standards published by the World Health Organization (WHO) in 2006. In order to compare the nutritional status of children under age five between the two surveys, each of the three nutritional status indicators was re-run using the NCHS/CDC/WHO international reference population (see Appendix Table C.7).

There has been a modest improvement over the past five years in the nutritional status of children under age five in Sierra Leone. Compared with the MICS 2005 results, the proportion of children whose height-for-age is below minus two standard deviations (stunted) decreased from 40 percent in 2005 to 34 percent in 2008, and the proportion of children whose weight-for-age is below minus two standard deviations (underweight) decreased from 30 percent in 2005 to 25 percent in 2008. Regarding wasting, the proportion of children whose weight-for-height is below -2 SD has not changed in the past five years, with 9 percent in the 2005 MICS and in the 2008 SLDHS.

The improvements in nutritional status are fairly small and should be interpreted with caution; when sampling errors are taken into consideration, it is likely that the nutritional status of children under five years in Sierra Leone has remained the same over the past five years.

11.2 INITIATION OF BREASTFEEDING

Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 11.2 shows the percentage of all children born in the five years before the survey by breastfeeding status and the timing of initial breastfeeding and by background characteristics. Overall, 95 percent of children born in the past five years were breastfed at some time and 51 percent of children were breastfed within one hour of birth.

Data from the 2008 SLDHS show that there is no difference in early initiation of breastfeeding by sex of the child. Urban children (49 percent) are slightly less likely to receive breast milk during the first hour after birth than rural children (51 percent). The proportion of children who receive early breastfeeding varies by type of assistance at delivery and region. Children whose mothers received no assistance at delivery were the least likely to start breastfeeding within the first hour after the birth. The proportion of women who began breastfeeding within an hour of birth is highest in the Northern Region (61 percent) and lowest in the Eastern Region, where only 38 percent of newborns received the same attention. Eighty-six percent of babies were breastfed within the first 24 hours after delivery.

Background characteristic	Breastfeeding among children born in past five years		Among last-born children ever breastfed:			
	Percentage ever breastfed	Number of children born in past 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	Number of last-born children ever breastfed
Sex						
Male	94.8	2,880	50.7	85.4	60.0	1,937
Female	94.3	2,931	50.3	86.0	58.4	1,974
Assistance at delivery						
Health professional ³	95.2	2,466	49.0	90.0	54.2	1,738
Traditional birth attendant	93.8	2,605	50.4	83.8	64.5	1,734
Other	93.6	548	63.3	84.5	63.9	362
No one	96.9	57	(46.1)	(71.2)	(52.8)	33
Missing	99.2	136	(9.7)	(11.0)	(11.9)	44
Place of delivery						
Health facility	95.6	1,430	50.7	90.3	54.1	1,015
At home	94.1	4,172	51.3	85.3	61.8	2,815
Other	(92.0)	49	(39.3)	(90.6)	(70.3)	33
Missing	98.0	160	(5.3)	(7.0)	(6.1)	48
Residence						
Urban	94.2	1,585	48.5	86.4	68.1	1,118
Rural	94.7	4,226	51.3	85.4	55.6	2,794
Region						
Eastern	96.7	1,170	38.2	89.8	41.2	782
Northern	93.2	2,623	60.7	82.4	62.2	1,767
Southern	96.1	1,187	46.1	90.0	47.4	758
Western	93.5	831	42.0	84.4	88.2	605
Mother's education						
No education	94.5	4,443	51.9	86.1	57.1	2,912
Primary	95.2	713	47.6	83.3	62.7	496
Secondary or higher	94.0	655	45.2	85.7	67.4	504
Wealth quintile						
Lowest	93.9	1,327	50.4	86.7	50.3	836
Second	96.6	1,220	52.6	86.3	55.2	828
Middle	94.2	1,288	53.4	83.6	55.1	858
Fourth	94.1	1,102	50.7	86.9	61.7	750
Highest	93.8	873	43.7	85.0	78.4	640
Total	94.6	5,811	50.5	85.7	59.2	3,911

Note: Table is based on children born in the five years preceding the survey regardless of whether the children was living or dead at the time of interview. Figures in parentheses are based on 25 to 49 unweighted cases.

¹ Includes children who started breastfeeding within one hour of birth

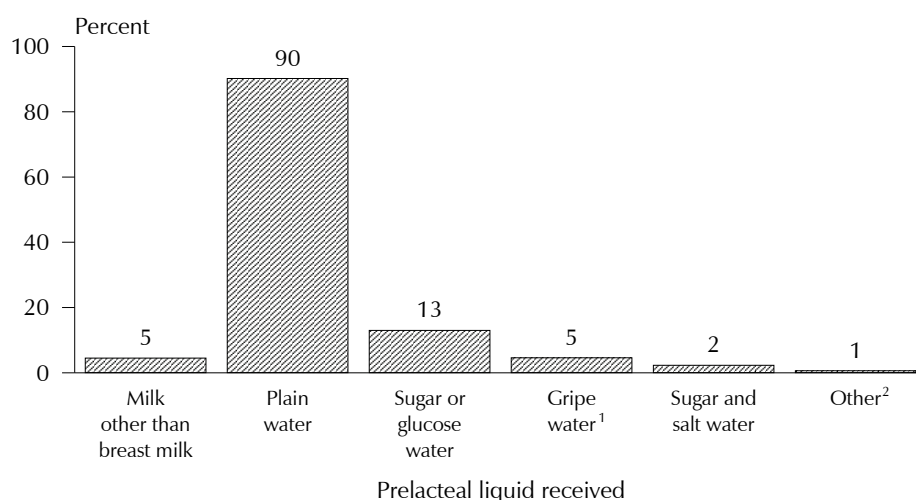
² Anything other than breast milk given to child during the first three days of life.

³ Doctor, nurse, midwife, or MCH aid

Survey results show that over half of babies (59 percent) received a prelacteal feed, i.e., anything other than breast milk given to a child during the first three days of life. Children whose births were assisted by a traditional birth attendant and those born at home were more likely to receive a prelacteal feed than those born at a health facility or with the assistance of a health provider. A prelacteal feed is more common in urban areas (68 percent) than rural areas (56 percent). It is practiced most commonly in the Western Region (88 percent) and in households in the highest wealth quintile (78 percent).

Figure 11.2 shows the percentage of newborns who received various types of prelacteal liquids among last-born children in the five years preceding the survey who received a prelacteal feed. The vast majority of children received plain water (90 percent), 20 percent received sugar water, gripe water (commercial preparation for colicky babies), or sugar and salt water. Another 5 percent received milk other than breast milk. Other liquids such as infant formula, tea, honey, fruit juice, and other were given to 1 percent of children who received a prelacteal feed.

Figure 11.2 Types of Prelacteal Liquids Received by Last-born Children in the Five Years Preceding the Survey



Note: Percentages do not add to 100.0 because some children received more than one type of prelacteal feed.

¹ Commercial preparation for soothing colicky babies

² 'Other' includes fruit juice, infant formula, tea/infusions, and honey.

Sierra Leone, 2008

11.3 BREASTFEEDING STATUS BY AGE

UNICEF and WHO recommend that children be exclusively breastfed during the first 6 months of life and that children be given solid or semisolid complementary foods, in addition to continued breastfeeding, from age 6 months to 24 months or more, when the child is fully weaned. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in low-resource settings, supplementary food is often nutritionally inferior.

Information on complementary feeding was obtained by asking mothers about the current breastfeeding status of their children under five years of age and—for the youngest child born in the three years preceding the survey and living with the mother—the foods and liquids given to the child the day and night preceding the survey.

Table 11.3 shows the percent distribution of youngest children under three years of age living with the mother by breastfeeding status, and percentage of children under three years using a bottle with a nipple, according to age in months. The results presented in Table 11.3 and Figure 11.3 show that the duration of breastfeeding in Sierra Leone is long. Almost all children (95 percent) under age 6 months are breastfed and, at age 12-15 months, the majority of children (82 percent) are still breastfeeding. By age 20-23 months, 50 percent of children have been weaned.

Compared with any breastfeeding, exclusive breastfeeding in Sierra Leone is less common and much shorter in duration. Only 22 percent of children under 2 months of age are exclusively breastfed, and this level declines to 3 percent among children age 4-5 months. Overall, only 11 percent of children under 6 months are exclusively breastfed, considerably less than the recommended 100 percent. In addition to breast milk, 5 percent of children are given other (non-breast) milk, 17 percent are given water, 29 percent are given other liquids, and 33 percent are given complementary foods in the form of solid or mushy foods. At age 6-9 months, more than nine in ten Sierra Leonean children are still breastfeeding, but most are also receiving other liquids and solid or mushy foods; 73 percent of breastfeeding children in this age group receive complementary foods. Among children age 9-11 months, more than 90 percent are still breastfeeding and 77 percent are also receiving complementary foods.

Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under three years who are living with their mother by breastfeeding status; the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, Sierra Leone 2008

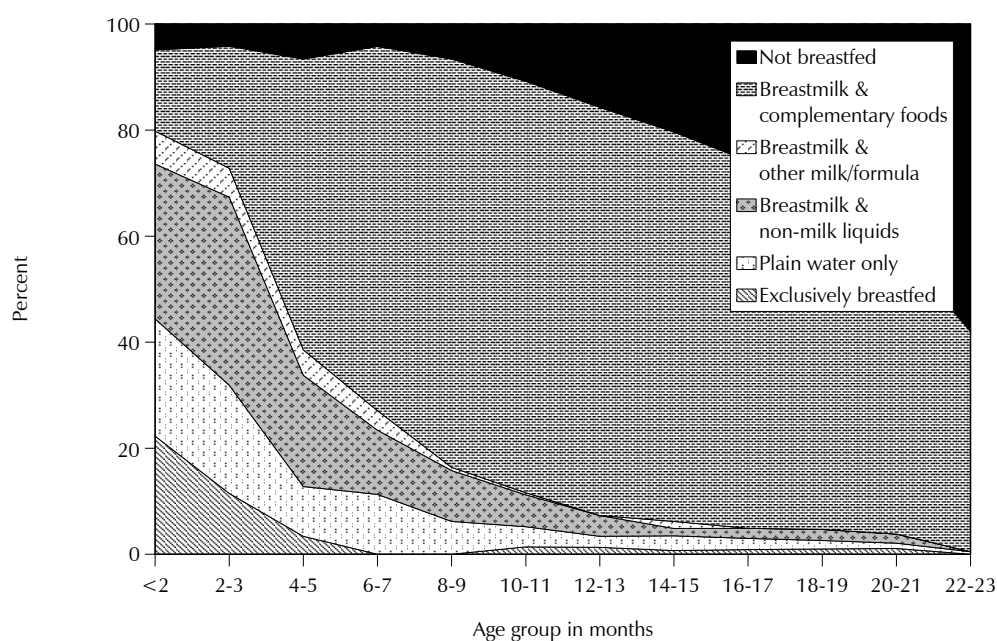
Age in months	Breastfeeding and consuming:						Total	Percentage currently breast-feeding	Number of youngest children under three years	Percentage using a bottle with a nipple ¹	Number of children under three years
	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/juice	Other milk	Complementary foods					
0-1	4.9	22.3	22.1	29.2	6.2	15.3	100.0	95.1	162	15.8	173
2-3	4.2	11.5	20.4	35.5	5.5	23.0	100.0	95.8	244	18.4	269
4-5	6.6	3.4	9.4	21.0	4.8	54.9	100.0	93.4	236	14.4	250
6-8	5.3	0.0	9.5	10.5	2.4	72.4	100.0	94.7	317	18.8	340
9-11	9.3	1.0	4.4	7.9	0.6	76.7	100.0	90.7	281	11.1	295
12-17	20.3	0.9	2.3	2.4	0.5	73.5	100.0	79.7	616	7.2	658
18-23	46.2	0.7	1.1	1.3	0.0	50.7	100.0	53.8	352	5.4	402
24-35	80.0	0.5	0.0	0.4	0.0	19.1	100.0	20.0	673	3.9	939
0-3	4.5	15.8	21.1	33.0	5.8	19.9	100.0	95.5	407	17.4	442
0-5	5.2	11.2	16.8	28.6	5.4	32.8	100.0	94.8	642	16.3	692
6-9	5.4	0.0	8.7	10.9	2.1	72.9	100.0	94.6	402	17.1	430
12-15	18.1	1.0	2.4	2.6	0.6	75.3	100.0	81.9	437	8.4	468
12-23	29.7	0.8	1.9	2.0	0.3	65.2	100.0	70.3	968	6.5	1,060
20-23	49.8	0.5	0.8	0.9	0.0	48.0	100.0	50.2	225	4.6	259

Note: Breastfeeding status refers to a 24-hour period (yesterday and the past night). Children classified as *breastfeeding and consuming plain water only* consumed no liquid or solid supplements. The categories 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, so the 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. Children who receive complementary foods are classified in that category as long as they are also breastfeeding.

¹Based on all children under three years

Use of bottles with nipples is not widespread, which is encouraging because contamination can occur with this method of feeding: only 16 percent of the youngest infants (0 to 1 month) are fed with a bottle with a nipple. This proportion increases to 19 percent for children age 6 to 8 months before declining.

Figure 11.3 Infant Feeding Practices by Age



Sierra Leone, 2008

11.4 DURATION AND FREQUENCY OF BREASTFEEDING

Table 11.4 shows the median duration of breastfeeding by background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of children born in the three years preceding the survey who were being breastfed at the time of the survey.

The median duration of any breastfeeding in Sierra Leone is 20 months, although the median duration of exclusive breastfeeding is very short—less than one month. The differentials in these two variables by background characteristics are small; however, rural children are breastfed somewhat longer than urban children, and the median duration of any breastfeeding decreases as mother’s level of education and wealth quintile increases.

Almost all children under six months (96 percent) are breastfed at least six times a day. On average, children are fed more frequently during the day (mean number of feeds: 7.5) than during the night (mean number of feeds: 5.0). The frequency of breastfeeding varies only slightly by background characteristics.

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; and percentage of breastfeeding children under six months living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of day and night feeds, by background characteristics, Sierra Leone 2008

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years ¹			Frequency of breastfeeding among children under six months of age ²			
	Any breast-feeding	Exclusive breast-feeding	Predominant breast-feeding ³	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex							
Male	18.9	0.5	2.9	98.0	7.8	5.1	309
Female	20.7	0.5	1.9	93.6	7.2	4.9	321
Residence							
Urban	18.0	0.4	1.4	96.4	7.9	5.2	160
Rural	20.5	0.5	2.5	95.6	7.3	4.9	469
Region							
Eastern	19.8	0.6	3.3	99.5	8.1	5.3	131
Northern	21.4	0.5	2.1	94.2	7.0	4.6	308
Southern	17.7	0.5	3.1	95.0	7.6	5.4	114
Western	17.9	0.4	0.7	97.3	8.1	5.3	76
Mother's education							
No education	20.5	0.5	2.7	95.2	7.4	5.0	473
Primary	19.0	0.4	1.9	98.5	7.2	4.8	79
Secondary or higher	16.2	0.4	1.4	96.9	8.4	5.2	77
Wealth quintile							
Lowest	20.3	0.5	3.0	97.4	7.3	5.0	168
Second	20.9	0.5	2.3	97.0	7.9	5.2	131
Middle	20.7	0.4	2.6	91.7	6.5	4.3	131
Fourth	18.6	0.5	2.3	96.2	8.2	5.4	119
Highest	17.1	0.4	1.4	96.7	7.6	5.1	81
Total	19.7	0.5	2.3	95.8	7.5	5.0	629
Mean for all children	19.0	1.5	4.9	na	na	na	na

Note: Median and mean durations are based on the distribution at the time of the survey of the proportion of births, by months since birth. Includes both children living and dead at the time of the survey.

na = Not applicable

¹ It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding

² Excludes children without a valid answer on the number of times breastfed

³ Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

11.5 TYPES OF COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid food to infants around the age of 6 months because by that age breast milk alone is no longer sufficient to maintain a child's optimal growth. In the transition to eating the family diet, children from the age of 6 months should be fed small quantities of solid and semisolid foods throughout the day. During this transition period (age 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices.

Table 11.5 provides information on the types of foods and liquids given to youngest children under three years of age living with their mother on the day and night preceding the survey, according to their breastfeeding status. Among breastfeeding children age 6-23 months, 87 percent received solid or semi-solid foods. The most common supplementary foods given to breastfeeding children age 6-23 months are the following: foods made from grains (76 percent), other liquids (73 percent), fruits and vegetables rich in vitamin A (56 percent), and meat, fish, poultry, and eggs (47 percent). Consumption of anything cooked with butter, fat, or oil generally begins at age 4-5 months (7 percent) and increases steadily to 47 percent by age 18-23 months and then declines to 43 percent at age 24-35 months. As expected, as children get older, the proportion given each type of food generally increases.

Table 11.5 shows that the proportion of non-breastfeeding children age 6-23 months who consume various foods is generally higher than the proportion of breastfeeding children. Eighty-four percent of children received foods made from grain, 78 percent ate fruits and vegetables rich in vitamin A, 76 percent consumed liquids other than water, and more than two-thirds ate meat, fish, poultry, or eggs. Approximately four in ten (44 percent) non-breastfeeding children age 6-23 months consumed foods made with oil, fat, or butter.

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

Age in months	Solid or semi-solid foods											Number of children			
	Liquids					Solid or semi-solid foods									
	Infant formula	Other milk ¹	Other liquids ²	Fortified baby foods	Food made from grains ³	Fruits and 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	
BREASTFEEDING CHILDREN															
0-1	5.8	4.5	46.5	2.2	11.7	4.9	2.1	1.7	0.9	2.3	3.0	16.1	2.4	1.4	154
2-3	8.5	6.5	58.9	3.7	16.6	5.0	2.4	2.8	3.8	5.3	3.9	22.9	3.0	3.0	234
4-5	12.3	14.8	70.9	11.7	49.1	19.6	9.9	7.8	7.7	11.8	8.7	57.6	6.6	7.2	220
6-8	16.7	17.1	68.7	25.7	67.9	27.2	10.9	12.2	14.6	23.8	7.1	76.3	15.4	16.1	300
9-11	10.0	13.9	70.5	15.5	75.6	49.1	12.4	13.0	18.7	35.8	2.7	84.6	20.4	16.9	255
12-17	10.1	9.1	75.6	11.4	78.6	68.6	25.4	24.4	28.7	56.1	7.3	92.3	40.3	22.0	491
18-23	5.3	6.9	74.0	4.3	83.7	77.0	23.0	24.3	34.9	71.8	3.1	94.3	46.6	14.8	190
24-35	3.7	3.3	77.2	4.5	83.8	82.6	37.4	39.5	38.2	68.7	13.0	95.5	42.7	14.6	135
6-23	10.9	11.7	72.6	14.6	76.2	55.8	18.8	19.1	24.1	46.5	5.7	87.1	31.1	18.4	1,236
Total	9.9	10.3	69.1	11.4	61.6	43.6	15.8	15.9	19.1	35.8	6.1	71.3	23.6	13.8	1,979
NON-BREASTFEEDING CHILDREN															
0-5	(13.4)	(12.2)	(49.9)	(13.4)	(40.2)	(17.4)	(20.1)	(9.1)	(9.6)	(17.1)	(9.6)	(43.3)	(9.6)	(6.4)	34
6-11	(15.8)	(19.3)	(80.4)	(16.5)	(68.8)	(59.9)	(30.2)	(29.1)	(30.3)	(50.7)	(15.4)	(88.0)	(21.4)	(13.8)	43
12-17	10.9	22.0	70.8	13.9	83.2	73.5	28.3	23.1	30.4	58.6	11.5	90.2	34.9	30.3	125
18-23	7.9	16.9	77.8	3.6	87.6	86.0	34.6	36.5	39.5	79.9	12.4	97.7	56.0	32.2	163
24-35	7.8	12.9	76.9	5.8	87.7	89.9	36.7	37.7	39.7	78.5	8.0	98.5	52.2	27.7	538
6-23	10.1	19.1	75.5	9.2	83.5	77.9	31.7	30.5	34.9	68.0	12.5	93.6	43.5	29.1	331
Total	8.8	15.2	75.4	7.3	84.4	82.8	34.2	34.0	36.8	72.4	9.7	94.6	47.4	27.4	903

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and the past night). Figures in parentheses are based on 25 to 49 unweighted cases.

¹ Other milk includes fresh, tinned and powdered animal milk.

² Does not include plain water

³ Includes fortified baby food

⁴ Includes fruits and vegetables 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

11.6 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age 6 months, and increasing the amount and variety of foods and the frequency of feedings as children grow older, while maintaining frequent breastfeeding. Guidelines have been established with respect to IYCF practices for children age 6-23 months (PAHO/WHO, 2003; WHO, 2005).

Table 11.6 presents the results of the 2008 SLDHS according to IYCF practices. The indicators focus on the percentage of children for whom feeding practices meet minimum standards with respect to—

- Food diversity (i.e., the number of food groups consumed),
- Feeding frequency (i.e., the number of times child is fed), and
- Consumption of breast milk or other milks or milk products.

Breastfed children are considered fed in accordance with minimum IYCF practices if they consume foods from at least three food groups¹ and receive foods other than breast milk at least twice per day in the case of children age 6-8 months and at least three times per day in the case of children age 9-23 months. Non-breastfed children are considered fed in accordance with minimum IYCF practices if they consume milk or milk products, are fed from at least four food groups (including milk products), and are fed at least four times per day.

The results of the 2008 SLDHS show that in Sierra Leone, more than half (52 percent) of breastfed children age 6-23 months received foods from three or more food groups in the 24 hours preceding the survey; 42 percent were fed the minimum number of times in the past 24 hours; and the percentage of children who fall into both categories was 28 percent (Figure 11.4). The combined proportion of breastfed children age 6-23 months fed in accordance with IYCF practices generally increases with mother's level of education and wealth quintile; however, it is particularly low among children in the Northern Region (22 percent).

Among non-breastfed children age 6-23 months, 30 percent received milk or milk products, 60 percent received food from at least four food groups, and 15 percent were fed four or more times per day. However, only 5 percent of non-breastfed children were fed in accordance with all three IYCF practices.

The results in Table 11.6 indicate that the majority of young children in Sierra Leone are not being fed appropriately. Overall, feeding practices meet the minimum standards for only 23 percent of children age 6-23 months. The most common problem with feeding practices in Sierra Leone is an inadequate number of feedings. Eighty-five percent of children age 6-23 months received breast milk or milk products and 54 percent received foods from the recommended number of food groups for their age; however, only 36 percent were fed the minimum number of times per day. Appropriate feeding practices are more common for breastfed children than for non-breastfed children (28 and 5 percent, respectively). There is little difference in feeding practices by age, sex of child, or urban-rural residence. Overall, the children most likely to be fed appropriately are those in the Western Region (32 percent), those whose mothers have primary education (27 percent), and those in the highest wealth quintile (28 percent), although differences are not large.

¹ Food groups used in the assessment of minimum standard of feeding practices include: infant formula, milk other than breast milk, cheese or yogurt or other milk products; foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; fruits and vegetables rich in vitamin A; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); beans, peas, and nuts; and foods made with oil, fat, or butter.

Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups consumed, and number of times child was fed during the day and night preceding the survey, by background characteristics, Sierra Leone 2008

Background characteristic	Among breastfed children 6-23 months, percentage fed:				Among non-breastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:					
	3+ food groups ¹	Minimum times or more ²	Both 3+ food groups and minimum times or more	Number of breastfed children 6-23 months	Milk or milk products ³	4+ food groups	4+ times	With 3 IYCF practices ⁴	Number of non-breastfed children 6-23 months	Breast milk or milk products ³	3+ or 4+ food groups ⁵	Minimum times or more ⁶	With all 3 IYCF practices	Number of all children 6-23 months
Age in months														
6-8	29.5	56.1	23.3	300	*	*	*	*	17	95.6	29.7	53.4	22.2	317
9-11	39.5	37.3	22.8	255	(42.4)	(60.5)	(12.9)	(7.3)	26	94.6	41.5	35.0	21.3	281
12-17	64.6	37.2	30.2	491	32.5	48.8	10.1	1.8	125	86.3	61.4	31.7	24.4	616
18-23	72.7	38.7	33.2	190	27.7	71.3	20.2	7.7	163	66.6	72.0	30.2	21.4	352
Sex														
Male	50.3	41.3	26.9	601	34.8	60.5	17.0	7.2	167	85.8	52.5	36.0	22.6	768
Female	53.9	42.7	27.9	635	25.4	59.5	13.0	3.0	164	84.7	55.1	36.6	22.8	799
Residence														
Urban	48.4	47.1	28.5	310	52.6	77.8	20.6	11.8	121	86.7	56.7	39.7	23.8	431
Rural	53.4	40.3	27.1	926	17.1	49.7	11.8	1.3	210	84.7	52.7	35.1	22.3	1,136
Region														
Eastern	56.8	46.9	30.6	258	9.4	49.8	8.7	0.0	61	82.6	55.5	39.6	24.7	319
Northern	47.8	28.8	21.8	552	26.4	50.8	13.1	3.5	135	85.5	48.4	25.7	18.2	687
Southern	53.2	55.6	30.5	259	20.5	64.0	14.6	1.2	73	82.5	55.5	46.6	24.1	332
Western	57.6	57.5	36.7	167	70.6	85.4	26.1	18.4	62	92.1	65.1	49.0	31.8	228
Mother's education														
No education	51.6	39.7	26.5	929	19.0	54.8	14.3	1.6	227	84.1	52.2	34.7	21.6	1,157
Primary	50.8	48.7	31.2	168	(46.0)	(69.0)	(16.5)	(12.2)	47	88.2	54.8	41.7	27.0	215
Secondary or higher	57.6	49.6	29.4	139	61.6	73.2	16.8	13.2	57	88.9	62.1	40.1	24.7	195
Wealth quintile														
Lowest	56.9	37.1	25.6	271	15.2	39.1	2.3	0.0	65	83.5	53.4	30.4	20.6	336
Second	52.5	39.3	24.7	282	18.5	54.9	16.6	4.4	60	85.8	52.9	35.4	21.2	341
Middle	47.7	42.2	25.7	273	19.1	51.1	9.4	2.5	55	86.4	48.3	36.7	21.8	328
Fourth	50.0	42.5	31.0	242	18.5	69.1	24.5	0.7	75	80.8	54.5	38.3	23.8	317
Highest	54.2	53.6	32.8	168	71.4	79.3	19.6	16.2	76	91.1	62.0	43.0	27.6	245
Total	52.1	42.0	27.5	1,236	30.2	60.0	15.0	5.1	331	85.2	53.8	36.3	22.7	1,567

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

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

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

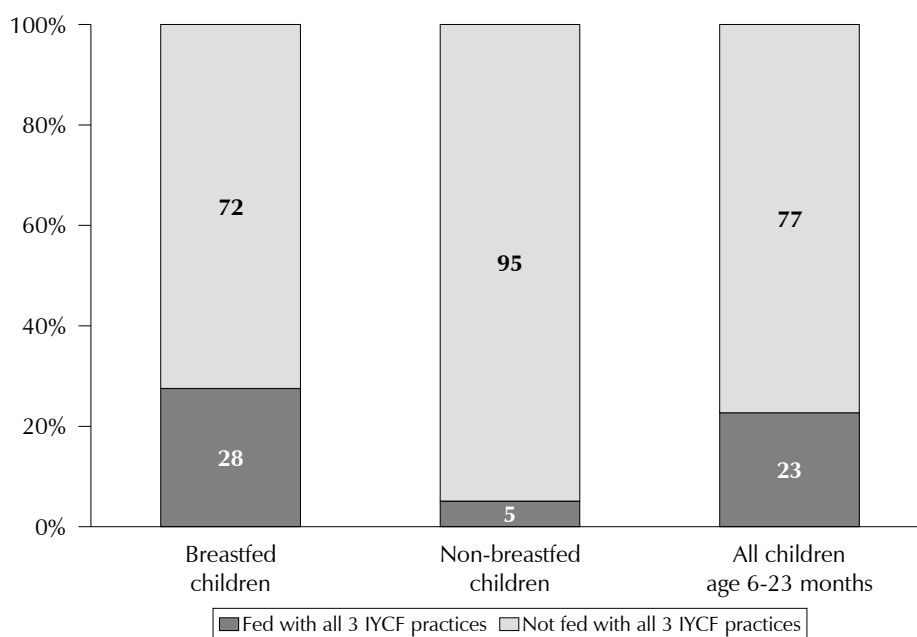
³ Includes commercial infant formula, fresh, tinned, and powdered animal milk, and cheese, yogurt, and other milk products

⁴ Non-breastfed children age 6-23 months are considered to be fed with a minimum standard of three Infant and Young Child 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

⁵ 3+ food groups for breastfed children and 4+ food groups for non-breastfed children

⁶ Fed 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

Figure 11.4 Infant and Young Child Feeding (IYCF) Practices



Sierra Leone, 2008

11.7 ANAEMIA IN CHILDREN

Anaemia is a condition characterized by a reduction in the volume of red blood cells and a decrease in the concentration of haemoglobin in the blood. Haemoglobin is necessary for transporting oxygen to tissues and organs in the body. About half of the global burden of anaemia is the result of iron deficiency. Iron deficiency, in turn, is caused by inadequate dietary intake of bioavailable iron, increased iron requirements during rapid growth periods (such as pregnancy and infancy), and increased blood loss due to hookworm or schistosome infestation. Nutritional anaemia includes the anaemic burden from iron deficiency, plus deficiencies in folate, vitamins B and B12, and certain trace elements involved with red blood cell production. Anaemia in children is associated with impaired mental and physical development and with increased morbidity and mortality. Anaemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight.

The most common causes of anaemia in Sierra Leone are inadequate dietary intake of iron, malaria, and intestinal worm infestation. Iron and folic acid supplementation and anti-malarial prophylaxis for pregnant women, promotion of the use of insecticide-treated bed nets (ITNs) by pregnant women and children under five, and six-month de-worming for children age two to five years are some of the important measures to reduce the anaemia burden in vulnerable groups.

The 2008 SLDHS included anaemia testing of children age 6-59 months and women age 15-49 in every second household selected for the 2008 SLDHS sample. Anaemia levels were determined by measuring the level of haemoglobin in the blood, with a decreased concentration characterizing anaemia. For haemoglobin measurements, a drop of capillary blood was taken with a finger prick (using sterile, disposable instruments). Haemoglobin concentration was measured using the HemoCue photometer system. As described in Chapter 1, trained personnel with each interviewing team performed the testing procedures on eligible, consenting respondents.

Table 11.7 presents anaemia prevalence for children age 6-59 months by background characteristics. The results are based on tests of 2,653 (de facto) children who were present in the household at the time of the testing, whose parents consented to their being tested, and whose haemoglobin results represented plausible data. In Table 11.7, children with anaemia were classified into three groups according to the level of haemoglobin in their blood:²

- Mild anaemia: haemoglobin concentration 10.0-10.9 g/dl
- Moderate anaemia: haemoglobin concentration 7.0-9.9 g/dl
- Severe anaemia: haemoglobin concentration less than 7.0 g/dl

The 2008 SLDHS results show that 76 percent of children age 6-59 months have some level of anaemia, including 28 percent of children who are mildly anaemic, 44 percent who are moderately anaemic, and 4 percent who are severe anaemia. The prevalence of any anaemia declines with age, from 87 percent among children age 12-17 months to 68 percent among children age 48-59 months.

Anaemia is equally common in boys and girls. Children in rural areas (77 percent) are more likely than those in urban areas (73 percent) to be anaemic. Looking at the regional patterns, children in the Northern Region (79 percent) are the most likely to be anaemic. The prevalence of anaemia is also high among children whose mothers have little or no education, and children in households in the three lowest (poorest) wealth quintiles.

The World Health Organization considers the level of anaemia observed among young children in Sierra Leone to be a major-level public health concern.³ Compared with estimates from recent Demographic and Health Surveys conducted in the region, the prevalence of any anaemia among children in Sierra Leone (76 percent) is similar to that in Guinea (76 percent in 2005) and Ghana (76 percent in 2003), but lower than the prevalence in Mali (81 percent in 2006) or Senegal (83 percent in 2005) (CPS/MS, DNSI/MEIC [Mali] and Macro International Inc., 2007; DNS [Guinée] and ORC Macro, 2006; Ndiaye et al., 2006; CRDH [Sénégal] and ORC Macro, 2005; GSS, NMIMR [Ghana], and ORC Macro, 2004).

² The classification is based on criteria developed by the World Health Organization (DeMaeyer et al., 1989). Because haemoglobin levels vary by altitude, each child's result was adjusted based on altitude measurements taken in the sample cluster in which they were measured.

³ WHO considers anaemia prevalence over 40 percent in a population as a major public health problem; prevalence of 20-40 percent is considered a medium-level public health problem; and prevalence of 5-19.9 percent is considered a mild public health problem (World Health Organization, 2001).

Table 11.7 Prevalence of anaemia in children
Percentage of children age 6-59 months classified as having anaemia, by background characteristics, Sierra Leone 2008

Background characteristic	Anaemia status by haemoglobin level				Number of children
	Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (below 7.0 g/dl)	Any anaemia	
Age in months					
6-8	28.0	49.4	5.6	83.0	149
9-11	26.7	43.4	9.9	80.0	146
12-17	24.4	57.4	5.0	86.8	360
18-23	25.9	46.3	3.9	76.1	203
24-35	26.2	49.4	2.7	78.2	520
36-47	31.0	38.9	3.1	73.0	658
48-59	31.3	34.5	2.0	67.7	618
Sex					
Male	27.4	44.7	4.2	76.3	1,300
Female	29.4	43.0	3.0	75.5	1,353
Mother's interview status					
Interviewed	28.8	44.9	3.6	77.2	1,988
Not interviewed but in household	27.9	33.9	5.6	67.4	136
Not interviewed, and not in the household ¹	27.3	42.2	3.2	72.8	527
Residence					
Urban	30.0	40.6	2.0	72.7	734
Rural	27.8	45.0	4.2	77.1	1,919
Region					
Eastern	30.1	38.7	5.7	74.4	478
Northern	26.8	48.5	4.1	79.3	1,217
Southern	27.2	42.7	2.2	72.1	562
Western	33.2	37.4	1.7	72.2	396
Mother's education²					
No education	28.1	45.4	3.9	77.4	1,674
Primary	30.7	41.3	4.5	76.6	231
Secondary or higher	32.8	36.5	1.4	70.7	211
Wealth quintile					
Lowest	26.8	46.6	5.2	78.7	578
Second	27.4	44.7	4.6	76.7	562
Middle	29.8	45.7	3.6	79.1	574
Fourth	26.3	44.3	3.0	73.6	552
Highest	33.2	34.8	0.7	68.7	387
Total	28.4	43.8	3.6	75.9	2,653

Note: Table is based on children who slept in the household the night before the interview. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using CDC formulas (CDC, 1998). Haemoglobin measured in grams per decilitre (g/dl). Total includes 2 children with information missing on mother's interview status and 8 children with information missing on mother's education.
¹ Includes children whose mothers are deceased
² For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers were not listed in the Household Questionnaire.

11.8 IODIZATION OF HOUSEHOLD SALT

Dietary deficiency of iodine is 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.

In the 2008 SLDHS, cooking salt in households was tested for the presence of iodine.⁴ Fortified salt that contains 15 parts per million (ppm) of iodine is considered adequate for the prevention of IDD. Table 11.8 shows that, among households with salt tested, more than half (58 percent) have adequately iodized salt (15+ ppm); 21 percent have salt that is not adequately iodized (<15 ppm); and 20 percent have salt with no iodine content (0 ppm).

A larger proportion of urban households have adequately iodized salt than rural households (70 percent, compared with 52 percent). The Northern Region has the lowest percentage of households with adequately iodized salt (42 percent); in the other regions, the proportions range from 59 percent in the Southern Region to 77 percent in the Eastern Region. The percentage of households using adequately iodized salt increases with wealth status, to 76 percent in households in the highest wealth quintile. Aside from the price of iodized salt, other factors such as uncontrolled humidity, packaging materials, and storage (longer than 6 months) may have an effect on the iodine content of the salt (WHO, 2001).

Background characteristic	Percentage of all households with:		Number of households	Among households with salt tested, percent distribution by iodine content of salt			Total	Number of households
	Salt tested for iodine	No salt		None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)		
Residence								
Urban	90.0	10.0	2,469	12.6	17.1	70.3	100.0	2,223
Rural	92.3	7.7	4,815	24.1	23.8	52.1	100.0	4,442
Region								
Eastern	89.0	11.0	1,494	1.6	21.0	77.4	100.0	1,330
Northern	94.6	5.4	2,757	34.3	23.6	42.1	100.0	2,607
Southern	91.0	9.0	1,583	16.8	24.2	58.9	100.0	1,440
Western	88.8	11.2	1,449	15.0	15.1	69.9	100.0	1,288
Wealth quintile								
Lowest	92.8	7.2	1,607	22.0	25.3	52.7	100.0	1,491
Second	92.0	8.0	1,440	24.0	23.9	52.1	100.0	1,326
Middle	92.5	7.5	1,344	26.8	21.9	51.3	100.0	1,244
Fourth	90.9	9.1	1,368	21.4	20.2	58.4	100.0	1,243
Highest	89.2	10.8	1,526	7.8	16.1	76.1	100.0	1,361
Total	91.5	8.5	7,284	20.3	21.6	58.2	100.0	6,665

11.9 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation. Table 11.9 presents information on children's intake of several key micronutrients.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the body's epithelial tissue. Severe vitamin A deficiency can cause eye damage. Vitamin A deficiency can also increase the severity of infections such as measles and diarrhoeal diseases in children, and slow recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, red palm oil, mangoes, papayas, carrots, pumpkins, yellow-orange sweet potatoes, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for 4-6 months. Periodic dosing (usually every 6 months) with vitamin A supplements is one method of ensuring that children at risk do not develop vitamin A deficiency.

⁴ Salt testing kits supplied by UNICEF were used to measure iodine levels.

Iron is essential for cognitive development. Low iron intake can also contribute to anaemia. Iron requirements are greatest between the ages of 6 and 12 months, when growth is extremely rapid. The 2008 SLDHS collected information on the consumption of foods rich in vitamin A and foods rich in iron.

Table 11.9 shows that 75 percent of children age 6-35 months living with their mother consumed foods rich in vitamin A in the 24 hours preceding the survey, and 59 percent consumed foods rich in iron. There is a steady increase with age in the proportion of children consuming foods rich in vitamin A (from 35 percent among children age 6-8 months to 93 percent among those age 24-35 months) and iron (from 25 percent among children age 6-8 months to 77 percent among those age 24-35). Children who are not breastfeeding are more likely to consume foods rich in vitamin A and iron than children who are breastfeeding; presumably this is because they are older on average than breastfeeding children. Differences in consumption of vitamin A-rich foods by other background characteristics are not large. However, children born to the youngest women (age 15-20) are markedly less likely to consume iron-rich foods (45 percent) than children born to older women (59-61 percent). Similarly, children in the Northern Region (51 percent) are considerably less likely to consume iron-rich foods than children in other regions (62-68 percent). Consumption of foods rich in iron is generally higher among urban children, children whose mothers are more educated, and children who live in households in the highest wealth quintile.

The 2008 SLDHS also collected information on vitamin A supplementation and iron supplementation. As shown in Table 11.9, only 26 percent of children age 6-59 months received a vitamin A supplement in the 6 months preceding the survey. Supplementation is higher among younger children: about one-third of children age 6-17 months received vitamin A supplements, compared with only one-fifth of those age 36-59 months. Children who are breastfeeding are more likely than non-breastfeeding children to have received a vitamin A supplement in the past 6 months. The data show that children in urban areas (30 percent) are slightly more likely to receive a vitamin A supplement than children in rural areas (25 percent). The proportion of children receiving vitamin A supplements is highest in the Southern and Western regions (34 and 32 percent, respectively) and lowest in the Eastern region (21 percent). The proportion of children receiving vitamin A supplements generally increases with mother's level of education and wealth quintile; however the pattern by wealth quintile is less uniform.

Regarding iron supplements, only 20 percent of children age 6-59 months received an iron supplement in the seven days preceding the survey. As with vitamin A supplementation, iron supplementation is higher among breastfeeding children, urban children, children whose mothers have secondary or higher education, and children in the higher wealth quintiles. Children in the Southern and Western regions (29-31 percent) are twice as likely to receive iron supplements as those in the Eastern and Northern regions (14-15 percent).

In addition to obtaining information on vitamin A and iron supplementation, the 2008 SLDHS collected data on whether children under age 6-59 months had received de-worming medication in the past six months, because intestinal worms can contribute to both anaemia and vitamin A deficiency. Table 11.9 shows that 37 percent of children age 6-59 months received de-worming medication in the six months preceding the survey. Older children, non-breastfeeding children, children in urban areas and in the Southern and Western regions, and children whose mothers have secondary or higher education, and children in households in the highest wealth quintile are more likely to receive de-worming medication than other children.

Table 11.9. 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 de-worming 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, Sierra Leone 2008

Background characteristic	Youngest children age 6-35 months living with the mother				All children age 6-59 months			Children age 6-59 months in households with salt tested for iodine	
	Percentage who consumed foods rich in vitamin A in past 24 hours ¹	Percentage who consumed foods rich in iron in past 24 hours ²	Number of children	Percentage who received vitamin A supplement in past 6 months	Percentage who received iron supplement in past 7 days	Percentage who received de-worming medication in past 6 months ³	Number of children	Percentage living in households with adequately iodized salt ⁴	Number of children
Age in months									
6-8	35.3	24.8	317	32.4	23.7	12.6	340	59.1	317
9-11	56.8	37.7	281	34.7	24.3	22.6	295	54.0	271
12-17	76.8	56.6	616	33.0	25.0	28.7	658	58.1	616
18-23	87.4	75.5	352	27.9	23.4	42.5	402	59.8	369
24-35	93.4	76.5	673	27.0	21.1	43.0	939	55.1	878
36-47	na	na	0	19.7	15.2	42.9	984	57.0	923
48-59	na	na	0	20.1	15.8	41.8	904	58.0	832
Sex									
Male	74.6	59.6	1,121	26.0	19.6	38.2	2,251	56.5	2,105
Female	75.5	57.8	1,119	25.8	20.3	35.8	2,270	57.9	2,101
Breastfeeding status									
Breastfeeding	65.1	48.6	1,371	32.1	23.5	25.2	1,468	55.4	1,370
Not breastfeeding	92.5	76.9	786	23.6	18.8	44.3	2,661	58.6	2,470
Missing	74.3	52.5	83	18.4	13.9	31.8	392	54.5	366
Mother's age at birth									
15-19	71.8	45.1	173	28.4	18.4	31.4	263	58.3	232
20-29	75.9	60.0	1,155	24.2	20.7	37.1	2,269	60.2	2,112
30-39	73.5	59.3	743	27.7	19.0	37.8	1,575	55.5	1,482
40-49	79.6	61.2	169	26.7	20.2	36.9	414	46.4	380
Residence									
Urban	73.7	63.5	605	29.5	27.5	46.6	1,220	68.4	1,124
Rural	75.6	56.9	1,635	24.6	17.1	33.4	3,301	53.1	3,081
Region									
Eastern	74.0	61.7	456	20.5	14.3	31.4	923	80.2	827
Northern	75.9	51.2	1,005	22.7	14.7	30.8	2,015	41.0	1,935
Southern	75.3	65.4	461	33.9	29.1	46.6	939	63.1	863
Western	73.5	68.3	317	32.1	30.8	50.3	644	69.6	581
Mother's education									
No education	75.9	57.3	1,690	24.0	16.4	33.6	3,474	53.7	3,232
Primary	71.5	61.5	288	29.8	27.6	44.3	547	65.0	503
Secondary or higher	73.6	64.3	262	35.1	35.8	52.2	501	72.9	471
Wealth quintile									
Lowest	75.6	58.5	474	23.5	15.4	31.3	977	57.0	915
Second	76.0	52.6	485	22.7	14.3	32.1	978	53.2	910
Middle	75.0	57.2	494	28.2	19.2	34.4	1,014	48.8	943
Fourth	74.3	61.6	445	24.7	24.2	40.9	866	56.8	816
Highest	74.1	66.0	342	32.0	30.1	50.9	686	76.6	622
Total	75.1	58.7	2,239	25.9	19.9	37.0	4,521	57.2	4,206

Note: Information on vitamin A, iron supplements, and de-worming medication is based on the mother's recall.

na = Not applicable

¹ Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables rich in vitamin A

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

³ De-worming for intestinal parasites is commonly done for helminthiasis and for schistosomiasis.

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

As discussed earlier, insufficient iodine in the diet can lead to mental retardation and other negative health outcomes in children. Table 11.9 shows that 57 percent of children age 6-59 months are in households that use adequately iodized salt, and children in urban areas are more likely than those in rural areas to have adequately iodized salt (68 percent, compared with 53 percent). There are substantial differences by region, ranging from 41 percent of children in households with adequately iodized salt in the Northern Region to 80 percent in the Eastern Region.

11.10 NUTRITIONAL STATUS OF WOMEN

Anthropometric data on height and weight were collected for women age 15-49 interviewed in half of the households selected for the survey. In this report, two indicators of nutritional status based on these data are presented: the percentage of women with very short stature (less than 145 cm) and body mass index (BMI).

BMI, or the Quetelet index, is used to measure thinness or obesity. BMI is defined as weight in kilograms divided by height squared in meters (kg/m^2). A cutoff point of 18.5 is used to define thinness, or acute undernutrition, and a BMI of 25.0 or above usually indicates overweight or obesity. The height of a woman is associated with past socioeconomic status and nutrition during childhood and adolescence. Low pre-pregnancy BMI and short stature are risk factors for poor birth outcomes and obstetric complications. In developing countries, maternal underweight is a leading risk factor for preventable death and diseases.

Table 11.10 presents the mean values of the two indicators of nutritional status and the proportion of women falling into various high-risk categories, by background characteristics. Respondents for whom there was no information on height and/or weight and for whom a BMI could not be estimated are excluded from this analysis. The analysis of height is based on 3,425 women, and the analysis of BMI is based on 3,105 women.

Table 11.10 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, Sierra Leone 2008

Background characteristic	Height		Mean Body Mass Index (BMI)	Body Mass Index ¹							Number of women
				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 overweight/obese)	25.0-29.9 (Overweight)	≥30.0 (Obese)	
Age											
15-19	16.8	531	22.4	62.2	16.0	10.4	5.6	21.8	17.8	4.1	472
20-29	12.8	1,332	23.2	62.1	11.3	6.3	5.0	26.6	18.8	7.8	1,138
30-39	13.3	1,017	24.2	57.7	8.8	5.9	3.0	33.5	22.1	11.3	948
40-49	9.9	545	24.3	52.5	11.1	7.5	3.6	36.4	23.2	13.1	546
Residence											
Urban	12.2	1,209	24.7	50.4	8.1	4.3	3.8	41.5	28.0	13.6	1,102
Rural	13.6	2,216	22.9	63.9	13.0	8.5	4.4	23.2	16.3	6.9	2,003
Region											
Eastern	18.5	610	23.8	60.4	8.2	4.6	3.6	31.4	22.0	9.3	538
Northern	14.6	1,379	23.5	63.9	9.1	7.3	1.7	27.0	18.9	8.1	1,270
Southern	13.7	752	22.9	55.7	18.3	10.3	8.0	26.0	18.5	7.5	664
Western	4.7	685	24.3	51.9	10.6	4.9	5.7	37.5	24.3	13.2	633
Education											
No education	12.6	2,311	23.3	61.8	11.7	7.5	4.2	26.5	18.4	8.1	2,078
Primary	19.1	425	24.2	54.5	10.0	6.7	3.3	35.5	23.9	11.5	383
Secondary or higher	11.0	690	24.2	53.2	10.4	5.8	4.6	36.5	25.0	11.5	644
Wealth quintile											
Lowest	16.8	608	23.2	60.6	13.8	7.6	6.2	25.7	16.3	9.3	571
Second	12.1	690	22.5	65.2	14.4	8.7	5.7	20.4	14.5	5.9	600
Middle	13.7	662	23.2	62.7	10.9	8.8	2.1	26.4	20.1	6.3	581
Fourth	15.0	718	23.9	59.1	8.9	6.1	2.8	32.0	21.9	10.1	658
Highest	8.8	748	24.8	49.6	8.9	4.5	4.3	41.5	27.9	13.7	695
Total	13.1	3,425	23.6	59.1	11.2	7.0	4.2	29.7	20.4	9.3	3,105

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2).

¹ Excludes pregnant women and women with a birth in the past two months

The data show that only 13 percent of women age 15-49 are less than 145 cm in height. The Eastern Region has the highest proportion of women who are short in stature (19 percent), while the Western Region (5 percent) has the lowest proportion. Women with primary education (19 percent) and those in the lowest wealth quintile (17 percent) are more likely to be short than other women. The mean BMI is in the normal range (18.5-24.9) for all background characteristics. At the national level, 11 percent of women are considered to be thin (BMI < 18.5); however, only 4 percent of women are considered to be severely thin (BMI < 17). The mean BMI for women age 15-49 is 23.6.

Thirty percent of women are in the overweight or obese categories, with 9 percent of women considered to be obese (BMI \geq 30.0). The proportion of overweight or obese women is positively correlated with age. Thus, age group 15-19 has the lowest proportion of overweight or obese women (22 percent) and age group 40-49 has the highest proportion (36 percent).

The data show that urban women (42 percent) are substantially more likely to be overweight or obese than rural women (23 percent). A regional comparison shows that the Southern Region has the lowest proportion of overweight or obese women (26 percent) and the Western Region has the highest proportion (38 percent). Overweight and obesity are higher among women with more education, and household wealth status has a positive relationship with overweight/obesity levels; women in the highest wealth quintile are more likely to be overweight or obese (42 percent) than other women.

11.11 FOODS CONSUMED BY MOTHERS

The quality and quantity of foods consumed by women influences their health and that of their children, especially the health of breastfeeding children. The 2008 SLDHS included questions on the types of foods consumed by mothers of children under age three, during the day and night preceding the interview. Table 11.11 shows that the foods most commonly consumed by mothers living with a child under three years include vitamin A-rich fruits and vegetables (91 percent); foods made from grains (82 percent); meat, fish, shellfish, poultry, and eggs (79 percent); other solid or semi-solid foods (58 percent); and foods cooked with palm oil, fat, or butter (51 percent). About four in ten women consume foods made from roots and tubers, foods made from legumes, and other fruits and vegetables. Differences in consumption of these food groups by background characteristics are not large, although there is a tendency for consumption to be higher among urban mothers, those with more education, and those in the higher wealth quintiles. Consumption of meat, fish, shellfish, poultry, and eggs is particularly high among women in the Western Region (92 percent).

The data show that only 8 percent of mothers drank milk in the 24 hours preceding the interview. Women in urban areas (19 percent) are more likely to drink milk than those in rural areas (4 percent). At the regional level, the percentage of women drinking milk is highest in the Western Region (29 percent), compared with 4-5 percent in other regions. Twelve percent of women drank tea or coffee, and 71 percent drank other liquids in the past 24 hours.

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

Among women age 15-49 with a child under age three years living with them, the percentage who consumed specific types of foods in the day and night preceding the interview, by background characteristics, Sierra Leone 2008

Background characteristic	Liquids				Solid or semi-solid foods										Number of women									
	Milk		Tea/coffee		Other liquids		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		Foods made with oil/fat/butter		
Age																								
15-19	5.4	11.4	67.4	78.9	43.8	40.4	76.0	11.2	89.3	39.6	61.2	47.6	17.7	250										
20-29	8.2	12.1	70.0	82.9	42.6	41.1	79.9	10.9	91.1	38.9	58.4	51.6	20.1	1,471										
30-39	8.2	12.2	72.8	82.7	46.3	40.6	79.4	7.6	90.2	40.8	54.7	50.7	16.6	960										
40-49	6.1	10.1	78.0	81.8	47.8	44.8	77.1	6.2	92.0	47.9	65.4	56.5	20.6	201										
Residence																								
Urban	19.0	27.8	71.4	86.7	33.8	46.7	86.4	16.7	93.7	40.4	54.2	61.7	28.7	771										
Rural	3.7	6.2	71.2	80.9	48.2	39.1	76.6	6.9	89.6	40.2	59.2	47.5	15.1	2,111										
Region																								
Eastern	3.6	8.7	65.2	79.2	46.0	44.5	83.1	5.0	86.5	44.1	49.3	50.9	10.0	592										
Northern	4.4	5.9	74.2	84.1	42.1	39.0	70.6	7.7	93.4	39.3	60.5	43.8	18.7	1,313										
Southern	5.2	10.8	70.0	77.9	62.6	36.5	86.1	8.6	88.1	41.5	68.1	53.1	15.5	576										
Western	29.1	38.1	72.2	88.2	22.7	49.7	91.8	23.4	91.9	35.7	47.6	73.9	36.3	401										
Education																								
No education	4.7	7.9	71.0	81.5	47.9	40.8	77.7	7.6	90.6	40.2	59.3	49.5	15.9	2,169										
Primary	10.0	15.6	73.1	83.1	36.1	37.9	80.3	9.5	92.0	40.2	57.5	50.1	22.2	366										
Secondary or higher	25.1	33.6	70.9	87.2	30.8	46.6	87.3	21.5	90.3	40.4	49.8	63.7	32.8	347										
Wealth quintile																								
Lowest	3.4	6.2	64.5	78.8	47.9	37.6	76.1	7.4	89.0	38.8	52.0	47.5	10.3	648										
Second	3.7	5.3	73.6	82.4	50.8	35.9	76.8	5.8	88.9	42.3	64.2	49.0	17.3	622										
Middle	4.2	7.1	78.6	81.4	49.6	42.4	76.8	6.6	93.1	44.4	62.5	48.9	17.0	626										
Fourth	5.8	10.1	66.1	84.5	39.7	44.6	80.3	9.2	91.1	34.9	58.5	48.8	19.9	557										
Highest	28.4	39.7	74.2	86.7	28.0	47.4	89.5	22.8	92.1	40.2	50.1	67.3	34.5	429										
Total	7.8	11.9	71.3	82.4	44.3	41.1	79.2	9.5	90.7	40.2	57.9	51.3	18.7	2,882										

Note: Foods consumed in the past 24 hours (yesterday and the past night).

¹ Includes fruits and vegetables 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.

11.12 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects mother and infant against anaemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anaemia. Anaemia also results in an increased risk of premature delivery and low birth weight. Finally, iodine deficiency is also related to a number of adverse pregnancy outcomes.

Table 11.12 presents a number of measures that are useful in assessing the extent to which women are receiving adequate vitamin A and iron; it also shows the proportion who took de-worming medication during their last pregnancy in the past five years. The first indicators focus on the percentage of women with children under age three who reported consuming foods rich in vitamin A and iron during the 24 hours preceding the interview. The results indicate that 95 percent of mothers with young children consumed vitamin A-rich foods and 79 percent consumed iron-rich foods in the 24 hours preceding the interview.

Table 11.12 shows the proportion of women who receive vitamin A supplements after giving birth. Slightly more than half (55 percent) of mothers with young children reported that they had received a postpartum dose of vitamin A within two months of delivering, but this varies with residence, region, educational attainment, and wealth status. Women in urban areas (63 percent) are more likely to receive vitamin A supplements than those in rural areas (52 percent). At the regional level, the percentage of women who reported receiving a postpartum dose of vitamin A is highest in the Western and Southern regions (62 and 64 percent, respectively) and lowest in the Northern Region (50 percent). The likelihood that a woman will receive a postpartum dose of vitamin A increases with mother's level of education and wealth quintile.

Regarding iron supplementation during pregnancy, Table 11.12 shows that among women with a birth in the past five years, about half reported taking iron tablets during the pregnancy for their last birth. However, more than half of these women (28 percent) took the iron supplements for less than 60 days. Seventeen percent of women did not take any iron tablets or syrup during pregnancy, however, a relatively large proportion of women (30 percent) said they did not know if they had received iron tablets or syrup during pregnancy. Intake varies considerably by region; more than half of women in the Western Region took iron tablets for 60 or more days, compared with 17 percent of women in the Northern Region.

Forty-four percent of mothers said they took de-worming medication during their most recent pregnancy. Use of de-worming medication during pregnancy is higher among urban women, women in the Southern Region, better educated women, and women in the higher wealth quintiles.

Table 11.12 shows that 57 percent of mothers with young children live in households with adequately iodized salt (15+ ppm)

Table 11.12. Micronutrient intake among mothers

Among women age 15-49 with a child under age three years living with them, the percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; and among women age 15-49 with a child under five years, the percentage who received a vitamin A dose postpartum (within two months of the last birth), the percentage with night blindness during pregnancy for the last birth, the distribution of women by number of days they took iron tablets or syrup during pregnancy for the last birth, and percentage who took de-worming medication during pregnancy for the last birth; and among women with a child under five years living in households with salt tested for iodine, the percentage in households with adequately iodized salt, by background characteristics, Sierra Leone, 2008

Background characteristic	Women with a child under three years living with them				Women with a child under five years					Women with a child under five years in households with salt tested for iodine					
	Percentage consumed vitamin A-rich foods ¹	Percentage consumed iron-rich foods ²	Number of women	Percentage who received vitamin A dose postpartum ³	Percentage with night blindness during pregnancy for last birth		Number of days women took iron tablets or syrup during pregnancy for last birth			Percentage of women who took de-worming medication during pregnancy for last birth	Number of women adequately iodized salt ⁵ of women	Percentage in households with adequately iodized salt ⁵ of women			
					Reported	Adjusted ⁴	<60	60-89	90+				Don't know/missing		
Age															
15-19	95.1	76.0	250	52.6	9.2	0.6	16.2	31.6	7.2	14.3	30.7	43.8	330	57.7	300
20-29	94.3	79.9	1,471	54.2	7.5	0.7	15.5	27.6	6.1	18.3	32.6	44.4	2,017	59.1	1,883
30-39	95.8	79.4	960	55.5	8.8	0.6	18.7	28.2	8.2	17.8	27.1	43.7	1,377	56.1	1,294
40-49	94.0	77.1	201	58.3	11.8	1.1	16.4	29.4	10.9	13.5	29.8	41.6	379	46.6	347
Residence															
Urban	97.0	86.4	771	63.2	5.3	0.4	8.2	18.9	8.6	29.3	34.9	45.7	1,183	69.7	1,098
Rural	94.1	76.6	2,111	51.5	9.8	0.8	20.1	32.1	6.8	12.5	28.5	43.1	2,920	51.7	2,726
Region															
Eastern	94.3	83.1	592	52.4	5.9	0.4	9.6	37.4	5.4	15.8	31.8	33.3	809	80.0	734
Northern	94.9	70.6	1,313	49.7	11.6	1.0	26.0	32.4	8.3	8.3	25.0	39.0	1,869	40.2	1,785
Southern	93.8	86.1	576	63.9	9.0	0.6	13.0	21.5	6.0	17.9	41.6	62.8	783	63.7	720
Western	97.2	91.8	401	62.0	2.0	0.2	3.3	13.2	8.5	44.6	30.4	48.3	642	70.3	586
Education															
No education	94.7	77.7	2,169	52.9	9.0	0.8	19.6	30.0	7.4	14.5	28.4	41.5	3,051	52.7	2,843
Primary	94.8	80.3	366	56.4	9.1	0.0	10.7	28.8	5.8	20.9	33.8	49.3	515	64.0	476
Secondary or higher	96.2	87.3	347	64.4	5.2	0.7	5.8	17.9	8.2	30.0	38.0	52.0	537	73.7	505
Wealth quintile															
Lowest	93.2	76.1	648	46.8	9.6	0.3	22.7	31.5	6.5	9.9	29.4	40.3	885	54.2	827
Second	94.0	76.8	622	52.5	9.8	1.0	22.2	34.4	4.6	10.7	28.1	42.4	849	53.0	788
Middle	95.9	76.8	626	52.6	9.1	0.9	17.7	33.4	8.1	12.1	28.8	43.3	893	47.8	838
Fourth	94.6	80.3	557	61.3	8.1	0.9	14.9	23.8	10.4	19.9	30.9	45.7	793	56.7	746
Highest	97.6	89.5	429	63.8	5.0	0.2	3.0	14.9	7.2	38.9	36.0	48.8	683	77.7	625
Total	94.9	79.2	2,882	54.9	8.5	0.7	16.7	28.3	7.3	17.3	30.4	43.8	4,103	56.9	3,824

¹ Includes 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 rich in vitamin A

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

³ Within two months following the last birth

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

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

11.13 ANAEMIA IN ADULTS

The same equipment and procedures used to measure anaemia in children were employed to measure anaemia in women and men, except for persons whose blood was also being collected for HIV testing. For those persons, the first 3-5 drops of blood were collected on filter paper cards for HIV testing and the next drop was collected in a microcuvette for anaemia testing. Three levels of anaemia are distinguished:

- Mild anaemia: 10.0-10.9 grams/decilitre for pregnant women, 10.0-11.9 g/dl for non-pregnant women, and 12.0-12.9 g/dl for men,
- Moderate anaemia: 7.0-9.9 g/dl for women and 9.0-11.9 g/dl for men, and
- Severe anaemia: less than 7.0 g/dl for women and less than 9.0 g/dl for men.

Appropriate adjustments to these cutoff points were made for respondents living at altitudes above 1,000 metres and respondents who smoke, because both of these groups require more haemoglobin in their blood (Centers for Disease Control and Prevention, 1998).

Table 11.13.1 shows the prevalence of anaemia in women age 15-49. Anaemia is less prevalent among women than children: 45 percent of women in Sierra Leone have some level of anaemia, compared with 76 percent of children. The large majority of women are mildly anaemic

Background characteristic	Not pregnant Pregnant	Anaemia status by haemoglobin level			Any anaemia <12.0 g/dl	Number of women
		Mild 10.0-11.9 g/dl	Moderate 7.0-9.9 g/dl	Severe <7.0 g/dl		
Age						
15-19		36.4	12.3	1.8	50.6	516
20-29		33.7	11.8	0.3	45.8	1,298
30-39		33.1	10.8	0.6	44.6	1,008
40-49		31.1	8.1	0.6	39.8	542
Number of children ever born						
0		35.3	13.2	1.2	49.7	578
1		35.9	8.7	0.8	45.4	506
2-3		33.0	13.1	0.6	46.7	985
4-5		31.3	9.9	0.4	41.6	693
6+		33.2	8.7	0.5	42.5	602
Maternity status						
Pregnant		36.9	24.0	1.4	62.3	281
Breastfeeding		35.4	8.8	0.7	44.9	993
Neither		32.1	10.3	0.6	43.1	2,092
Smoking status						
Smokes cigarettes/tobacco		29.8	8.3	0.8	38.9	345
Does not smoke		34.0	11.3	0.7	46.1	3,003
Residence						
Urban		34.5	11.6	0.6	46.7	1,138
Rural		33.0	10.7	0.7	44.5	2,227
Region						
Eastern		32.2	9.9	0.8	43.0	530
Northern		34.6	9.8	0.8	45.2	1,397
Southern		29.7	12.5	0.6	42.8	774
Western		36.7	12.8	0.4	49.9	664
Education						
No education		33.3	11.4	0.5	45.1	2,299
Primary		31.1	10.7	1.6	43.5	416
Secondary or higher		35.9	9.7	0.9	46.5	650
Wealth quintile						
Lowest		31.4	10.8	1.2	43.4	629
Second		35.6	11.1	0.7	47.4	666
Middle		34.3	10.9	0.6	45.8	663
Fourth		30.9	12.2	0.7	43.8	714
Highest		35.4	10.0	0.3	45.7	693
Total		33.5	11.0	0.7	45.2	3,365

Note: Table is based on women who stayed in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status, if known, using CDC formulas (CDC, 1998). Total includes 17 women with information missing on smoking status. Haemoglobin measured in grams per decilitre (g/dl).

(34 percent), while 11 percent are moderately anaemic, and less than 1 percent are severely anaemic. As expected, the prevalence of anaemia is higher among pregnant women (62 percent) and breastfeeding women (45 percent) than among other women. The prevalence of any anaemia in women is the highest in the Western Region (50 percent). In all other regions the level of any anaemia is between 43 and 45 percent.

Compared with estimates from recent Demographic and Health Surveys, the prevalence of any anaemia among women age 15-49 in Sierra Leone (45 percent) is similar to the prevalence in Ghana (45 percent in 2003), but lower than the prevalence in Guinea (53 percent in 2005), Senegal (59 percent in 2005), and Mali (69 percent in 2006) (CPS/MS, DNSI/MEIC [Mali] and Macro International Inc., 2007; DNS [Guinée] and ORC Macro, 2006; Ndiaye et al., 2006; CRDH [Sénégal] and ORC Macro, 2005; GSS, NMIMR [Ghana], and ORC Macro, 2004).

The results of anaemia testing in men indicate that in Sierra Leone anaemia is less prevalent among men than women (Table 11.13.2). Only 21 percent of men age 15-49 have some level of anaemia, compared with 45 percent of women. As with women, the majority of men are mildly anaemic (17 percent), while 4 percent are moderately anaemic, and less than 1 percent are severely anaemic. Younger men (below age 20) and older men (age 50-59) are more likely to be anaemic (27 and 26 percent, respectively) than men in other age groups.

Background characteristic	Anaemia status by haemoglobin level			Any anaemia (<13.0 g/dl)	Number of men
	Mild (12.0-12.9 g/dl)	Moderate (9.0-11.9 g/dl)	Severe (<9.0 g/dl)		
Age					
15-19	21.3	5.4	0.0	26.8	468
20-29	14.9	3.5	0.3	18.8	744
30-39	14.1	3.6	0.2	17.9	824
40-49	18.1	4.6	0.9	23.7	603
Smoking status					
Smokes cigarettes/tobacco	14.4	4.7	0.9	20.0	987
Does not smoke	17.8	3.8	0.1	21.7	1,651
Residence					
Urban	15.6	3.2	0.5	19.4	969
Rural	17.0	4.7	0.3	22.0	1,669
Region					
Eastern	15.6	3.4	0.5	19.5	458
Northern	17.1	3.6	0.1	20.8	1,029
Southern	14.8	5.6	0.5	20.8	597
Western	18.0	4.4	0.7	23.0	555
Education					
No education	16.2	4.5	0.3	21.0	1,291
Primary	18.2	5.7	0.4	24.3	373
Secondary or higher	16.3	3.0	0.5	19.9	974
Wealth quintile					
Lowest	17.6	5.9	0.1	23.7	517
Second	16.1	4.1	0.0	20.2	482
Middle	21.9	4.2	0.8	26.9	472
Fourth	12.2	3.3	0.1	15.6	535
Highest	15.6	3.3	0.8	19.7	633
Total 15-49	16.5	4.1	0.4	21.0	2,638
50-59	18.7	6.1	1.2	26.1	289
Total 15-59	16.7	4.3	0.5	21.5	2,927

Note: Table is based on men who stayed in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status, if known, using CDC formulas (CDC, 1998). Haemoglobin measured in grams per decilitre (g/dl).

Malaria is one of the most serious public health problems in Sierra Leone, accounting for over 40 percent of outpatient morbidity. The most vulnerable groups include children under five years, pregnant women, refugees, and returnees.

The malaria health problem was exacerbated by 10 years of civil conflict that resulted in substantial population displacement and damage to the health system. In an effort to reduce the malaria burden in Sierra Leone, the Government of Sierra Leone launched the Roll Back Malaria (RBM) initiative in 2002 and formed a Task Force to provide technical support to the programme. Toward this effort, the Government of Sierra Leone developed a strategy document outlining several intervention measures for malaria control and prevention for 2004-2008 (MOHS, 2006). The intervention areas outlined in the National Malaria Strategy (NMS) document are:

- 1) Management of malarial illness;
- 2) Multiple disease prevention, which includes vector control by use of insecticide-treated mosquito nets (ITNs) and control of malaria in pregnancy;
- 3) Advocacy, Information, Education Communication and Social Mobilization;
- 4) Partnership strengthening and programme management;
- 5) Capacity building;
- 6) Operational Research; and
- 7) Monitoring and Evaluation to assess the extent of implementation of several of these malaria control strategies.

This plan is in line with the Abuja Declaration, which the Government of Sierra Leone signed in April 2000. The objectives of the National Malaria Strategy were to ensure that by the year 2005 at least 60 percent of those at risk of malaria, particularly pregnant women and children under five, have access to the most suitable and affordable combination of personal and community protective measures such as insecticide-treated mosquito nets (ITNs) and prompt, effective treatment for malaria. Another objective was to ensure that at least 60 percent of all pregnant women have access to intermittent preventive treatment (IPT). As part of this plan, the Ministry of Health and Sanitation (MHS) has endorsed the use of more effective drugs for treatment in Sierra Leone—Artesunate plus Amodiaquine combination therapy (ACT). Data from the 2008 Sierra Leone Demographic and Health Survey (SLDHS) can be used to assess the extent of implementation of several of these malaria control strategies.

12.1 MOSQUITO NETS

12.1.1 Ownership of Mosquito Nets

The ownership and use of mosquito nets, both treated and untreated, is the primary health intervention for reducing malaria transmission and morbidity in communities prone to the vector—the *Anopheles* mosquito. In Sierra Leone, there are various types of insecticide-treated mosquito nets (ITNs) available on the market. They include long-lasting nets that require re-treatment after about five years and other nets that need to be re-treated every six months or after three washes. During SLDHS data collection, interviewers had with them examples of the various types of bed nets used in

Sierra Leone. These were shown to respondents to enable them to determine the brand of bed nets used in the household.

In an effort to make mosquito nets more affordable, the Government of Sierra Leone has waived taxes on the importation of nets into the country. Developmental partners have also contributed by supplying some ITNs for distribution at subsidized costs to pregnant women and children under five in deprived areas of the country. These nets are distributed through routine public health services. Since 2002, over 400,000 ITNs have been distributed nationwide, linking malaria prevention with immunization and antenatal care visits. In addition, 30,000 nets from the European Union and 234,000 nets from UNICEF are being distributed (MOHS, 2006).

Table 12.1 shows the percentage of households with at least one and with more than one mosquito net (treated or untreated), the percentage of households with at least one and more than one ever-treated mosquito net, and the percentage of households with at least one and with more than one insecticide-treated net (ITN), by background characteristics. The data show that 40 percent of households in Sierra Leone own a mosquito net (treated or untreated), and 16 percent of households own more than one net. There is almost no difference by urban-rural residence in mosquito net ownership, although rural households are more likely to own more than one net. Mosquito net ownership is highest in the Southern Region (48 percent) and lowest in the Eastern Region (35 percent). The percentage of households with at least one net increases with household wealth status, from 33 percent among the poorest households to 44 percent among households in the middle and fourth wealth quintiles. The average number of mosquito nets per household is 0.6.

More than one-third (37 percent) of households own at least one insecticide-treated net (ITN). Households in the Southern Region reported the highest ownership of ITNs (45 percent), with lower ownership reported in other regions (34-35 percent). Wealthier households are more likely to own at least one ITN than poorer households. The average numbers of ITNs per household is 0.6.

Background characteristic	Any type of mosquito net			Ever-treated mosquito net ¹			Insecticide-treated mosquito net (ITN) 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	38.5	14.6	0.6	37.7	13.3	0.6	36.5	12.8	0.5	2,469
Rural	40.0	17.0	0.6	38.9	15.7	0.6	36.7	14.6	0.6	4,815
Region										
Eastern	35.4	11.5	0.5	34.4	10.6	0.5	33.5	10.4	0.5	1,494
Northern	39.1	16.4	0.6	38.3	15.0	0.6	35.2	13.6	0.6	2,757
Southern	47.5	23.4	0.8	46.5	22.1	0.8	44.9	20.8	0.7	1,583
Western	35.5	12.8	0.5	34.5	11.0	0.5	33.5	10.9	0.5	1,449
Wealth quintile										
Lowest	32.7	12.2	0.5	31.7	10.7	0.5	30.4	10.1	0.4	1,607
Second	39.0	16.3	0.6	37.9	15.1	0.6	33.9	13.2	0.5	1,440
Middle	43.5	19.6	0.7	42.2	18.0	0.7	39.9	16.5	0.6	1,344
Fourth	43.7	17.7	0.7	43.2	16.8	0.7	41.8	16.4	0.7	1,368
Highest	39.8	16.1	0.6	38.7	14.5	0.6	38.2	14.3	0.6	1,526
Total	39.5	16.2	0.6	38.5	14.8	0.6	36.6	14.0	0.6	7,284

¹ An ever-treated net is 1) a pretreated net or a non-pretreated net that 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.

12.1.2 Use of Mosquito Nets by Children

Age is an important factor in determining levels of acquired immunity against malaria. For the first six months of life, antibodies acquired from the mother during pregnancy protect children from malaria. This immunity is gradually lost, as children start developing their own immunity over a period of time. The level of immunity developed depends on the level of exposure to malaria infection, but it is believed that in malaria endemic areas like Sierra Leone, children acquire some immunity by the fifth birthday. Such children no longer suffer from severe life-threatening malaria, although malaria illness affects all members of the community, regardless of age. The Government of Sierra Leone recognizes that children under five years are a high risk group, and it recommends that children under five years be protected from by sleeping under ITNs.

In the 2008 SLDHS, respondents to the Household Questionnaire were asked about the use of mosquito nets by all members of the household the night before the interview. Table 12.2 presents information on use of mosquito nets by children under five years in all households and in households with an ITNs, by background characteristics. The data show that 28 percent of children under five years in all households slept under a mosquito net (treated or untreated) the night before the survey; 27 percent of children in all households slept under an ever-treated net; and 26 percent slept under an ITN the night before the survey. In households that own at least one insecticide-treated net, however, substantially more children under age five slept under an ITN the night before the survey (61 percent).

Background characteristic	Among children under five in all households, percentage who, the past night:			Number of children	Among children under five in households with an ITN ²	
	Slept under any net	Slept under an ever-treated net ¹	Slept under an ITN ²		Percentage who slept under an ITN the past night ²	Number of children
Age in years						
<1	34.8	34.0	31.9	1,447	68.9	669
1	30.5	29.1	27.3	1,220	63.6	524
2	28.4	27.8	26.7	1,140	60.8	500
3	24.3	24.0	22.8	1,413	58.6	549
4	21.6	21.0	20.1	1,350	49.4	549
Sex						
Male	27.5	26.8	25.5	3,274	61.1	1,366
Female	28.3	27.5	26.0	3,297	60.2	1,426
Residence						
Urban	30.9	30.6	29.9	1,772	66.0	802
Rural	26.9	25.9	24.2	4,799	58.5	1,990
Region						
Eastern	26.6	25.6	25.0	1,325	65.0	509
Northern	24.9	24.0	21.8	2,964	57.6	1,124
Southern	36.6	36.0	34.9	1,316	61.6	746
Western	27.3	27.1	26.3	967	61.6	413
Wealth quintile						
Lowest	24.9	24.0	22.8	1,497	64.7	528
Second	25.9	24.9	22.2	1,382	59.0	521
Middle	28.2	27.4	25.7	1,427	54.5	672
Fourth	33.3	32.8	32.0	1,255	64.9	618
Highest	28.3	27.8	27.3	1,009	60.7	453
Total	27.9	27.2	25.8	6,571	60.6	2,792

Children's age is inversely related to the likelihood of sleeping under a mosquito net: the youngest children are most likely to have slept under any net (35 percent), an ever-treated net (34 percent), and an ITN (32 percent) the night before the survey, and the oldest children are least likely to have slept under any of the three types of bed nets (22, 21, and 20 percent, respectively). Children in rural areas are less likely to sleep under any net (27 percent) than their urban counterparts (31 percent). The proportion of children who slept under any type of mosquito net was highest in the Southern Region (37 percent) and lowest in the Northern Region (25 percent). The proportion of children who slept under a mosquito net generally increases with household wealth status, peaking at 33 percent among children in the fourth wealth quintile.

In households that own at least one ITN, there are small differences in the proportion of children who slept under a mosquito net the past night, by background characteristics. Children age four years (49 percent), children in households in the middle wealth quintile (55 percent), and children in rural areas (59 percent) were less likely than other children to sleep under an ITN the night before the interview. The percentage of children in households with ITNs who slept under an ITN is highest in the Eastern Region (65 percent) and lowest in the Northern Region (58 percent).

12.1.3 Use of Mosquito Nets by Women

Malaria is especially dangerous during pregnancy and this has prompted many advocacy campaigns to educate not only pregnant women, but also the general public on the importance of preventing malaria during pregnancy.

Tables 12.3.1 and 12.3.2 show, for all households and for households with at least one ITN, the percentage of the de facto population of women and the percentage of the de facto population of pregnant women who slept under a mosquito net (treated or untreated) the past night and who slept under an ITN the past night, by background characteristics. The data show negligible differences between all women and pregnant women in the use of nets; 29 percent of all women and 29 percent of pregnant women slept under a net the past night; 27-28 percent slept under an ever-treated net; and 27 percent slept under an ITN. Similar to the results observed for children, in households that own at least one ITN, substantially more women slept under an ITN the night before the survey (65 percent of all women and 70 percent of pregnant women).

Women in rural areas are more likely to sleep under a mosquito net than women in urban areas, and the rural-urban differential is slightly larger for pregnant women. As seen for children, use of mosquito nets by women is highest in the Southern Region: 36 percent of all women and 33 percent of pregnant women slept under an ITN the past night. The use of a net is lowest in the Western Region (about 20 percent among all women and 13 percent among pregnant women). Surprisingly, better educated women are the least likely to sleep under a net (23 percent, compared with 28 percent for women with no education). This pattern is more pronounced among all women than among pregnant women. Similarly, women in the highest wealth quintile are less likely than other women to sleep under any net (treated or untreated). These results may in part be because women in wealthier households, better educated women, and women in urban areas are more likely to live in houses with mosquito screening on the windows and doors, hence the redundancy of using mosquito nets.

Table 12.3.1 Use of mosquito nets by women

Among all women age 15-49 in all households, the percentage who slept the past night under a mosquito net (treated or untreated), under an ever-treated mosquito net, and under an insecticide-treated net (ITN); and among all women age 15-49 in households with at least one ITN, the percentage who slept the past night under an ITN, by background characteristics, Sierra Leone 2008

Background characteristic	Among women age 15-49 in all households, percentage who, the past night:				Women age 15-49 in households with an ITN ²	
	Slept under any net	Slept under an ever-treated net ¹	Slept under an ITN ²	Number of women	Percentage who slept under an ITN ² the past night	Number of women
Residence						
Urban	24.8	24.2	23.6	2,858	58.4	1,153
Rural	31.1	30.1	28.1	5,067	69.2	2,059
Region						
Eastern	28.5	27.6	27.0	1,431	69.6	554
Northern	28.2	27.3	24.9	3,212	64.6	1,240
Southern	38.0	37.2	35.6	1,662	70.9	833
Western	20.9	20.2	19.8	1,620	55.0	583
Education						
No education	30.5	29.5	27.6	5,205	71.1	2,018
Primary	28.2	27.7	27.1	1,040	63.5	444
Secondary or higher	23.9	23.3	22.7	1,645	50.5	738
Wealth quintile						
Lowest	27.7	26.8	25.5	1,477	77.6	485
Second	30.0	29.0	25.5	1,456	68.5	541
Middle	32.7	31.8	29.6	1,538	66.9	680
Fourth	31.3	30.6	30.0	1,596	64.5	742
Highest	23.5	22.6	22.5	1,859	54.8	762
Total	28.8	28.0	26.5	7,925	65.4	3,211

¹ An ever-treated net is 1) a pretreated net or a non-pretreated that 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.

Table 12.3.2 Use of mosquito nets by pregnant women

Among pregnant women age 15-49 in all households, the percentage who slept the past night under a mosquito net (treated or untreated), under an ever-treated mosquito net, and under an insecticide-treated net (ITN); and among pregnant women age 15-49 in households with at least one ITN, the percentage who slept the past night under an ITN, by background characteristics, Sierra Leone 2008

Background characteristic	Among pregnant women age 15-49 in all households, percentage who, the past night:				Pregnant women age 15-49 in households with an ITN ²	
	Slept under any net	Slept under an ever-treated net ¹	Slept under an ITN ²	Number of women	Percentage who slept under an ITN ² the past night	Number of women
Residence						
Urban	22.1	22.1	21.8	173	64.1	59
Rural	31.2	29.5	29.3	442	72.1	179
Region						
Eastern	27.1	25.8	25.3	109	67.5	41
Northern	30.2	28.6	28.1	260	71.6	102
Southern	34.2	33.2	33.2	168	74.6	75
Western	13.3	13.3	13.3	77	(51.0)	20
Education						
No education	29.8	28.1	27.7	445	74.1	167
Primary	25.3	25.3	25.3	84	(59.3)	36
Secondary or higher	26.0	26.0	26.0	86	(62.3)	36
Wealth quintile						
Lowest	21.7	20.6	20.6	130	(73.2)	37
Second	37.4	35.1	34.3	143	78.3	63
Middle	28.4	26.5	26.1	138	62.7	57
Fourth	34.0	34.0	34.0	114	73.5	53
Highest	18.2	18.2	18.2	89	(56.8)	28
Total	28.6	27.4	27.2	615	70.1	238

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

¹ An ever-treated net is 1) a pretreated net or a non-pretreated that 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.

12.2 INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY

12.2.1 Malaria Prophylaxis during Pregnancy

In malaria endemic areas, adults acquire some immunity that protects them from repeated malaria infection. However, pregnant women—especially those pregnant for the first time—are more susceptible to malaria infection. In some cases, malaria infections remain asymptomatic but may lead to the development of anaemia. Malaria infection during pregnancy can also interfere with the maternal-foetus exchange, leading to low birth weight.

One of the strategies the Sierra Leone National Malaria Strategy has adopted for malaria control is Intermittent Preventive Treatment (IPT) of pregnant women with sulphadoxine-pyrimethamine (SP), also known as Fansidar. Government strategy calls for pregnant women to receive two doses of IPT in the second and third trimesters, to reduce the risk of malaria infection. In the 2008 SLDHS, women who had a live birth in the two years preceding the survey were asked whether they had received any drugs to prevent getting malaria during the pregnancy for their most recent birth and, if yes, which drug. If they had received SP, they were further asked how many times they received it and whether they received it during an antenatal care visit.

Table 12.4 shows the percentage of women age 15-49 with a live birth in the two years preceding the survey who during the pregnancy received an anti-malarial drug for prevention, received SP/Fansidar, received any other anti-malarial drugs, and who received Intermittent Preventive Treatment (IPT).

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

Among women age 15-49 with a live birth in the two years preceding the survey, percentage who during the pregnancy received any anti-malarial drug for prevention; percentage who received any SP/Fansidar and two or more doses of SP/Fansidar; and percentage who received Intermittent Preventive Treatment (IPT), by background characteristics, Sierra Leone 2008

Background characteristic	SP/Fansidar			Intermittent Preventive Treatment ¹		Number of women with a live birth in the two years preceding the survey
	Percentage who received any anti-malarial drug	Percentage who received any SP/Fansidar	Percentage who received 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	41.3	25.4	14.3	21.2	11.9	681
Rural	31.4	17.3	11.1	15.1	9.8	1,797
Region						
Eastern	33.1	21.6	15.5	18.9	13.6	500
Northern	28.0	11.9	7.2	9.5	5.4	1,114
Southern	43.7	29.7	19.3	26.5	17.2	507
Western	40.9	25.6	11.9	22.9	11.4	357
Education						
No education	30.2	17.3	10.8	14.8	9.3	1,819
Primary	44.7	24.7	16.1	20.1	12.8	339
Secondary or higher	45.0	26.6	14.3	24.7	13.7	319
Wealth quintile						
Lowest	30.5	17.1	10.9	14.7	9.6	570
Second	33.5	18.5	11.5	15.6	9.6	535
Middle	28.2	17.8	11.8	15.3	10.3	517
Fourth	35.7	18.8	13.2	15.9	10.8	476
Highest	46.5	27.7	13.1	24.7	11.9	379
Total	34.1	19.5	12.0	16.8	10.3	2,478

¹ Intermittent Preventive Treatment (IPT) during pregnancy is preventive treatment with sulfadoxine-pyrimethamine (SP/Fansidar) during an antenatal care visit.

The survey results show that more than one-third (34 percent) of women age 15-49 with a live birth in the two years preceding the survey received some kind of anti-malarial medicine for prevention of malaria during the last pregnancy. However, only 20 percent of women said they received SP/Fansidar—the recommended drug for prevention of malaria during pregnancy in Sierra Leone—at least once during the pregnancy, and just 12 percent of women said they received SP/Fansidar twice during their pregnancy.

Urban women (41 percent) are more likely to take anti-malarial drugs during pregnancy than rural women (31 percent). The Southern Region (44 percent) has the highest percentage of women taking any anti-malarial drug, while the Northern Region (28 percent) has the lowest. The use of anti-malarial drugs during pregnancy increases with mother’s level of education and wealth quintile.

Differences in the proportion of women treated with one dose of SP/Fansidar and two or more doses of SP/Fansidar by background characteristics are not large, and are similar to those observed for women receiving any anti-malarial drugs during pregnancy.

Use of SP/Fansidar for IPT was introduced in Sierra Leone in 2005 as a replacement for chloroquine prophylaxis because of high levels of chloroquine resistance. Some pregnant women may have received chloroquine prophylaxis because the drug was still in stock for some time after the change in the anti-malarial drug policy. The use of IPT by pregnant women for the last birth in the two years preceding the survey can serve as a baseline for the newly instituted IPT programme. Only 17 percent of women with a birth in the two years preceding the survey who used IPT received SP/Fansidar during an antenatal visit. Most of them were from the Southern and Western Regions (27 and 23 percent, respectively). The National Malaria Strategy recommends that pregnant women take at least two doses of SP/Fansidar during pregnancy as IPT against malaria (MOHS, 2006). Only

10 percent of women said they received two or more doses, at least one of which was during an ANC visit. There is a small increase in IPT coverage with increasing level of mother's education, from 9 percent among those with no education to 14 percent among those with secondary or higher education. Similarly, ITP coverage increases slightly with household wealth status, from 10 percent among women in the lowest wealth quintile to 12 percent among those in the highest wealth quintile.

12.2.2 Prevalence and Management of Childhood Malaria

The Government of Sierra Leone recognizes that most malarial fevers occur at home, and it has accepted that prompt and effective malaria treatment is important to prevent the disease from becoming severe and complicated. Mothers are also educated to give correct doses of anti-malarial drugs and to recognize danger signs requiring referral.

Because the major manifestation of malaria is fever, in the 2008 SLDHS mothers were asked whether their children under age five had a fever in the two weeks preceding the survey. Although fever can occur all year round, malaria is more prevalent during the rainy season, and such temporal factors must be taken into account when interpreting the occurrence of fever as an indicator of malaria prevalence. If a fever was reported for the child, the mother was asked whether treatment was sought at a health facility and whether the child was given any medication and, if so, how soon the medication was given after the episode of illness began.

Table 12.5 presents information on children under age five with fever in the two weeks preceding the survey including the percentage who received anti-malarial drugs and the percentage who received anti-malarial drugs the same or next day, by background characteristics. One in four children under five years (25 percent) had a fever in the two weeks preceding the survey. Of these, 30 percent received an anti-malarial drug, but only 15 percent of children received the anti-malarial drug the same or next day as the onset of the fever.

Fever is most common among younger children, then decreases with age. The proportion of children with fever differs little by urban-rural residence. The Western Region has the highest percentage of children with fever (29 percent), compared with 23-24 percent in other regions. The prevalence of fever is highest among children of more educated women and women in the higher wealth quintiles. It may be that these women are more likely to recognize and report fever in their young children than women with less education and women in lower wealth quintiles.

Table 12.5 Prevalence and prompt treatment of fever

Percentage of children under five with fever in the two weeks preceding the survey; and among children with fever, the percentage who received anti-malarial drugs and the percentage who received the drugs the same or next day following onset of fever, by background characteristics, Sierra Leone 2008

Background characteristic	Children under five		Children under five with fever		
	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who received anti-malarial drugs	Percentage who received anti-malarial drugs same or next day	Number of children
Age (in months)					
<12	27.1	1,326	28.3	14.6	360
12-23	29.1	1,060	28.7	13.4	308
24-35	25.8	939	32.3	14.1	242
36-47	20.4	984	29.6	16.7	201
48-59	19.0	904	33.8	19.1	172
Residence					
Urban	25.2	1,397	35.1	18.0	352
Rural	24.4	3,817	28.2	14.0	931
Region					
Eastern	23.0	1,067	22.5	8.3	246
Northern	24.2	2,354	26.4	11.1	569
Southern	24.1	1,058	43.9	29.8	254
Western	29.1	735	32.2	16.3	214
Mother's education					
No education	23.5	3,990	28.5	13.7	936
Primary	27.8	633	32.4	15.8	176
Secondary or higher	28.6	531	34.0	19.5	152
Wealth quintile					
Lowest	23.5	1,159	27.1	14.2	272
Second	24.2	1,123	29.1	15.0	272
Middle	23.5	1,157	29.4	13.5	272
Fourth	24.8	996	28.8	14.6	248
Highest	28.3	778	37.2	19.2	220
Total	24.6	5,213	30.1	15.1	1,283

Older children are slightly more likely to be given anti-malarial drugs for treatment of fever and to receive the drugs the same or the next day, compared with younger children. Children living in the urban areas are slightly more likely than children in the rural areas to be given anti-malarial drugs and to receive them within a day or two of the onset of fever. Children living in the Southern Region are the most likely to have been given an anti-malarial drug (44 percent) and the most likely to have received the drug the same or the next day (30 percent). Children of more educated women and women in the highest wealth quintile are also more likely than other children to be given anti-malarial drugs and to receive these drugs the same or the next day.

Table 12.6 presents information on the type and timing of anti-malarial drugs received by children under five with fever in the two weeks preceding the survey. The percentage who received specific anti-malarial drugs and the percentage who received each type of drug the same or next day after developing the fever are shown by background characteristics.

Table 12.6 Type and timing of anti-malarial drugs

Background characteristic	Percentage of children who received specific anti-malarial drugs:										Number of children with fever				
	Percentage of children who received anti-malarial drugs the same or next day					Percentage of children who received anti-malarial drugs the same or next day									
	SP/ Fansidar	Chloro- quine	Amodia- quine	Quinine	ACT ¹	Cbangba root/ Sheku Ture leaves	Other anti- malarial	SP/ Fansidar	Chloro- quine	Amodia- quine		Quinine	ACT ¹	Cbangba root/ Sheku Ture leaves	Other anti- malarial
Age (in months)															
<12	0.5	14.5	2.1	1.3	7.4	3.9	2.9	0.5	7.7	1.6	0.0	1.7	1.9	1.1	360
12-23	3.5	10.4	5.1	0.3	4.8	3.6	2.7	1.8	5.5	1.7	0.0	0.7	2.0	1.7	308
24-35	0.8	17.4	4.7	0.3	11.0	1.8	0.9	0.8	7.2	2.8	0.0	2.5	0.7	0.9	242
36-47	2.0	17.6	5.1	0.8	3.7	2.0	1.7	1.5	10.4	2.1	0.0	2.1	0.9	1.7	201
48-59	4.8	13.6	4.7	1.6	4.1	5.6	3.3	3.3	8.4	2.4	0.9	2.3	2.5	1.0	172
Residence															
Urban	3.2	19.3	4.4	1.3	5.5	1.8	2.8	2.7	10.7	2.1	0.4	1.3	1.1	0.8	352
Rural	1.7	12.6	4.0	0.6	6.8	3.9	2.2	0.9	6.4	2.0	0.0	1.9	1.8	1.5	931
Region															
Eastern	0.6	14.6	2.5	0.9	3.5	0.9	1.0	0.6	5.9	1.1	0.0	0.9	0.0	0.3	246
Northern	2.1	12.1	1.1	0.9	7.0	5.1	3.3	1.3	4.8	0.5	0.3	0.9	2.3	2.0	569
Southern	2.8	15.6	12.0	1.2	9.8	2.9	1.9	2.0	12.7	6.9	0.0	4.5	2.2	1.5	254
Western	2.8	19.2	4.6	0.0	4.1	2.2	1.9	2.0	11.1	1.6	0.0	1.5	1.0	0.2	214
Mother's education															
No education	1.7	13.4	3.3	0.8	6.3	4.1	2.2	1.1	6.7	1.3	0.0	1.8	1.8	1.5	936
Primary	3.4	16.0	4.1	0.7	5.8	1.1	4.8	2.2	8.1	2.8	0.0	0.7	1.1	1.5	176
Secondary or higher	2.6	17.1	7.7	1.4	6.8	1.4	0.8	1.9	10.2	4.2	1.0	1.9	1.4	0.3	152
Wealth quintile															
Lowest	2.0	12.3	5.2	1.0	3.0	2.6	3.8	1.3	6.7	1.0	0.0	0.5	1.2	3.8	272
Second	0.9	13.8	4.9	0.7	6.7	5.2	1.4	0.0	6.4	3.8	0.0	1.8	2.6	0.4	272
Middle	2.6	13.0	2.2	0.5	10.5	3.0	0.7	1.8	7.5	0.7	0.0	2.9	1.2	0.0	272
Fourth	1.2	12.0	4.1	1.0	6.9	4.2	2.9	0.7	5.8	2.6	0.0	2.1	2.9	1.6	248
Highest	4.1	22.4	4.1	0.9	4.7	1.3	3.1	3.7	12.3	2.2	0.7	1.5	0.0	0.6	220
Total	2.1	14.4	4.1	0.8	6.4	3.3	2.4	1.4	7.6	2.0	0.1	1.7	1.6	1.3	1,283

¹ Artemisinin Combination Therapy (ACT)

Chloroquine, which was withdrawn from the Sierra Leone market in 2006 because of the high level of resistance to the drug, is by far the most common anti-malarial drug administered for fever (14 percent), followed by Artemisinin Combination Therapy (ACT) (6 percent), Amodiaquine (4 percent) and Fansidar (2 percent). Quinine, reserved for treatment of severe and complicated malaria cases in health facilities, is taken by less than 1 percent of children with fever. It is noteworthy that 3 percent of children were treated with traditional herbal medicines (Gbangba root/Sheku Ture leaves) that are believed by some in Sierra Leone to cure malaria. Two percent of children received other anti-malarial drugs.

Differences in the types of anti-malarial drugs used to manage fever are small. Children living in the Southern Region are more likely to have received all types of anti-malarial drugs and more likely to have taken the drugs the same or the next day, compared with other children. Children age 24-35 months (11 percent), those living in the Southern Region (10 percent), and those in the middle wealth quintile (11 percent) are more likely than other children to be given ACT to treat fever. However, in the majority of cases, the fever was not managed appropriately, with ACT not being given as recommended in the national policy.

Because of the need to treat malaria quickly, it can be useful for parents to have anti-malarial drugs at home. The SLDHS data show that anti-malarial drugs were at home when the child became ill with fever in only 31 percent of the cases (Table 12.7). However, mothers of 56 percent of the children treated with local herbal medicines reported having the anti-malarial herbs (Gbangba root/Sheku Ture leaves) at home when their children became ill with fever. The proportion having the anti-malarial drugs at home was higher for mothers whose children were treated with chloroquine and SP/Fansidar (29 percent each). Mothers of 22 percent of children treated with ACT and 20 percent of children treated with Amidiaquine reported having the drugs in the household when the child became ill with fever.

In conclusion, the results provided in this report highlight the large gap between the national targets set for 2005 by the National Malaria Strategy and the present coverage of malaria interventions. Advocacy programmes need to be implemented that will increase the use of insecticide-treated mosquito nets, provide for re-treatment of mosquito nets, manage paediatric fevers, and facilitate the uptake of IPT.

Table 12.7 Availability at home of anti-malarial drugs received by children with fever

Among children under five with fever in the two weeks preceding the survey and who received specific anti-malarial drugs, the percentage for whom the drug was at home when the child became ill with fever, Sierra Leone 2008

Drug	Children under five with fever who received anti-malarial drug	
	Percentage for whom the drug was at home when child became ill with fever	Number of children
SP/Fansidar	(29.3)	27
Chloroquine	29.4	185
Amodiaquine	(19.5)	53
Quinine	*	11
ACT ¹	21.6	82
Gbangba root/Sheku Ture leaves	(55.8)	43
Other anti-malarials	(16.1)	30
Any anti-malarial drug	30.6	386

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
¹ Artemisinin Combination Therapy (ACT)

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV), which weakens the immune system and makes the body susceptible to and unable to recover from other opportunistic diseases and eventually leads to death through these secondary infections. The predominant mode of HIV transmission is through heterosexual contact, followed in magnitude by perinatal transmission in which the mother passes the virus to the child during pregnancy, delivery, or breastfeeding. Other modes of transmission are through infected blood and unsafe injections.

The future course of Sierra Leone's AIDS epidemic depends on a number of variables including level of HIV/AIDS-related knowledge in the general population, social stigmatization, risk behaviour modification, access to quality services for sexually transmitted infections (STI), provision and uptake of HIV counselling and testing, and access to care including prevention and treatment of opportunistic infections and antiretroviral therapy (ART). The principal objective of this chapter is to establish the prevalence of relevant knowledge, perceptions, and behaviours at the national level and in the various geographic and socio-economic subgroups of the population. In this way, prevention programmes can target those groups most in need of information and most at risk of HIV infection.

This chapter presents the results on HIV/AIDS knowledge, attitudes, and related behaviours for the general adult population age 15-49. The chapter also includes information HIV/AIDS knowledge and sexual activity among young people, because young adults are the main target of many HIV prevention efforts.

13.1 HIV/AIDS KNOWLEDGE, TRANSMISSION, AND PREVENTION METHODS

13.1.1 Awareness of HIV/AIDS

In the 2008 SLDHS, respondents were asked whether they had heard of AIDS. Those who reported having heard of AIDS were asked a number of questions about whether and how HIV/AIDS could be avoided.

Table 13.1 shows that knowledge of AIDS in Sierra Leone is higher among men (83 percent) than among women (69 percent). Generally, awareness is somewhat higher among younger women age 15-24. Among men, there is no clear relationship between age and the proportion who have heard about AIDS.

Awareness of AIDS is highest among never-married women who have ever had sex (89 percent) and is lowest among women who are currently married or living with a man as if married (65 percent). Among men, knowledge of AIDS is highest among divorced, separated, or widowed men (94 percent), followed by never-married men who have had sex (88 percent), and it is lowest among never-married men who have never had sex (67 percent).

By residence, women and men in urban areas (87 and 95 percent, respectively) are more likely to have heard about AIDS than their counterparts in rural areas (59 and 76 percent, respectively).

There are regional variations in the level of knowledge of AIDS. Table 13.1 shows that women and men in the Western Region are the most knowledgeable about AIDS (95 and 98 percent, respectively), while women in the Northern Region (59 percent) and men in the Southern Region (71 percent) are the least knowledgeable.

Background characteristic	Women		Men	
	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men
Age				
15-24	72.7	2,384	81.2	929
15-19	70.7	1,198	77.8	526
20-24	74.7	1,186	85.7	403
25-29	68.9	1,643	85.0	446
30-39	67.2	2,175	81.2	899
40-49	67.5	1,172	86.3	671
Marital status				
Never married	82.2	1,399	80.5	1,085
Ever had sex	88.6	924	87.6	702
Never had sex	69.9	475	67.3	383
Married/living together	65.3	5,525	83.9	1,767
Divorced/separated/widowed	79.6	450	94.0	92
Residence				
Urban	87.4	2,655	94.5	1,123
Rural	59.3	4,719	75.8	1,822
Region				
Eastern	69.6	1,325	88.1	557
Northern	58.6	3,001	78.7	1,131
Southern	65.3	1,542	70.9	617
Western	94.9	1,506	97.6	639
Education				
No education	59.7	4,860	73.9	1,426
Primary	79.3	960	79.0	414
Secondary or higher	93.7	1,554	96.0	1,104
Wealth quintile				
Lowest	56.1	1,382	66.2	558
Second	56.7	1,368	75.8	520
Middle	58.3	1,428	81.2	530
Fourth	77.2	1,472	88.4	597
Highest	92.7	1,723	97.5	739
Total 15-49	69.4	7,374	82.9	2,944
50-59	na	0	75.7	336
Total 15-59	na	0	82.2	3,280

na = Not applicable

Knowledge about HIV/AIDS increases steadily with the level of education. Table 13.1 shows that for women, knowledge of AIDS increases from 60 percent among women with no education to 79 percent among those with primary education to 94 percent among women with secondary or higher education. Similarly, for men, knowledge of AIDS increases from 74 percent among men with no education to 79 percent among those with primary education to 96 percent among men with secondary or higher education.

For both male and female respondents, knowledge of AIDS increases with increasing wealth quintile. For example, awareness about AIDS increases steadily from 56 percent among women in the lowest wealth quintile to 93 percent among those in the highest wealth quintile.

13.1.2 Knowledge of HIV/AIDS Transmission and Prevention Methods

HIV among adults is mainly transmitted through heterosexual contact between a person who is HIV positive and a person who is HIV negative. Consequently, AIDS prevention programmes focus their messages and efforts on three important aspects of sexual behaviour: delaying sexual debut in young persons (abstinence), limiting the number of sexual partners or staying faithful to one partner, and using condoms (the ABC message).

To ascertain whether programmes have effectively communicated these messages, the 2008 SLDHS asked respondents if people can reduce their chances of getting the AIDS virus by using a condom every time they have sex, by having just one HIV-negative sexual partner who has no other sex partners, and by not having sexual intercourse at all.

As shown in Table 13.2, 43 percent of women and 62 percent of men know that consistent use of condoms is a means of preventing the spread of HIV. About half of women and two-thirds of men know that limiting sexual intercourse to one faithful, HIV-negative partner can reduce the chances of contracting HIV. Just 40 percent of women and 58 percent of men age 15-49 know that abstinence is a way of reducing the chances of getting HIV. Approximately the same proportions of respondents (38 percent of women and 56 percent of men) said that people can reduce the chances of getting the AIDS virus by using condoms and limiting sex to one HIV-negative partner. Thus, knowledge of HIV/AIDS is higher among men than women for each of the three specified prevention methods.

Surprisingly, older women, currently married women, and women who have never had sex are less likely than other women to know of ways to avoid getting HIV. Urban women and women living in the Western Region are more likely to be aware of safe sexual practices than other women. There is a strong, positive relationship between respondent's level of education and knowledge of ways to prevent HIV. For example, only 28 percent of women with no education say that the risk of getting HIV can be reduced by using condoms and limiting sex to one HIV-negative partner, compared with 66 percent of women with secondary or higher education.

As with women, level of education among men is an important factor associated with knowledge of HIV/AIDS; men with the least education and those who have never had sex are less likely than other men to know of ways to avoid the AIDS virus. Men in their thirties are less knowledgeable about safe sex, compared with younger and older men. There are noticeable variations in knowledge of HIV/AIDS by residence. As with women, urban men and men in the Western Region are more likely to be aware of safe sexual practices than rural men and men in other regions. Only 45 percent of men in the Southern Region cited using condoms and limiting sex to one HIV-negative partner as a way to avoid HIV/AIDS, compared with 70 percent of men in the Western Region. As expected, respondents' wealth status has a positive correlation with knowledge of HIV prevention methods. Women and men in higher wealth quintiles are more likely than those in lower quintiles to be aware of HIV prevention methods.

Table 13.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, said 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 HIV negative and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Sierra Leone 2008

Background characteristic	Percentage of women who say HIV can be prevented by:					Percentage of men who say HIV can be prevented by:				
	Using condoms ¹	Limiting sexual intercourse to one HIV-negative partner ²	Using condoms and limiting sexual intercourse to one HIV-negative partner ^{1,2}	Abstaining from sexual intercourse	Number of women	Using condoms ¹	Limiting sexual intercourse to one HIV-negative partner ²	Using condoms and limiting sexual intercourse to one HIV-negative partner ^{1,2}	Abstaining from sexual intercourse	Number of men
Age										
15-24	47.4	51.0	41.3	43.4	2,384	64.2	65.8	57.2	59.9	929
15-19	44.4	48.6	38.5	41.2	1,198	60.5	62.2	54.0	57.7	526
20-24	50.4	53.4	44.3	45.6	1,186	69.0	70.4	61.4	62.7	403
25-29	42.0	48.7	37.1	38.6	1,643	61.8	69.2	56.0	57.3	446
30-39	42.3	45.7	37.1	38.8	2,175	58.3	63.9	52.9	54.0	899
40-49	38.3	45.8	33.7	39.0	1,172	65.1	69.4	59.2	59.5	671
Marital status										
Never married	59.2	61.5	52.7	52.9	1,399	63.1	65.6	56.6	58.9	1,085
Ever had sex	66.9	67.8	59.2	57.8	924	69.7	73.0	63.3	64.0	702
Never had sex	44.3	49.3	40.1	43.4	475	51.1	52.1	44.3	49.7	383
Married/living together	38.9	44.0	33.7	36.9	5,525	61.1	66.5	55.3	56.8	1,767
Divorced/separated/ widowed	47.0	56.3	43.5	41.8	450	73.6	76.9	66.8	57.7	92
Residence										
Urban	61.7	65.8	54.6	52.6	2,655	75.3	79.2	68.3	69.2	1,123
Rural	32.8	38.2	28.6	33.3	4,719	54.2	58.8	48.7	50.4	1,822
Region										
Eastern	36.9	38.8	28.4	34.5	1,325	62.7	66.4	55.0	57.0	557
Northern	37.7	41.5	33.1	35.6	3,001	60.9	64.6	55.1	54.6	1,131
Southern	34.4	40.7	31.1	35.6	1,542	50.3	53.0	44.7	49.4	617
Western	68.8	77.0	62.9	59.4	1,506	75.7	83.3	70.1	71.4	639
Education										
No education	31.8	37.2	27.6	31.7	4,860	50.6	55.1	44.4	47.5	1,426
Primary	52.2	58.4	44.5	49.2	960	54.9	60.0	48.4	49.9	414
Secondary or higher	73.5	75.9	66.3	61.5	1,554	80.0	83.8	74.3	73.6	1,104
Wealth quintile										
Lowest	29.3	34.4	24.9	30.1	1,382	41.9	44.6	35.0	38.8	558
Second	30.8	34.8	26.3	30.2	1,368	55.3	59.1	48.6	51.5	520
Middle	32.3	38.3	28.4	32.2	1,428	58.5	63.7	52.8	53.5	530
Fourth	50.2	54.9	44.0	47.2	1,472	70.4	74.6	64.7	63.2	597
Highest	67.4	72.0	60.3	57.1	1,723	78.6	83.8	73.0	74.5	739
Total 15-49	43.2	48.1	37.9	40.3	7,374	62.2	66.5	56.2	57.6	2,944
50-59	na	na	na	na	0	50.9	57.0	45.0	51.8	336
Total 15-59	na	na	na	na	0	61.1	65.6	55.0	57.0	3,280

na = Not applicable

¹ Using condoms every time they have sexual intercourse

² Partner who has no other partners

13.1.3 Rejection of Misconceptions about HIV/AIDS

In addition to knowing about effective ways to avoid contracting HIV, it is useful to be able to identify incorrect beliefs about AIDS, to eliminate misconceptions. Common misconceptions about HIV/AIDS include, the idea that all people who are HIV positive look sick, and the belief that the virus can be transmitted through mosquito or other insect bites, by sharing food with someone who is HIV positive, or by witchcraft and other supernatural means. Respondents were asked about these four misconceptions and the results are presented in Tables 13.3.1 and 13.3.2 for women and men, respectively.

Table 13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about HIV/AIDS transmission and prevention; and the percentage with comprehensive knowledge about AIDS, by background characteristics, Sierra Leone 2008

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	AIDS cannot be transmitted by supernatural means	A person cannot contract HIV by sharing food with a person who has AIDS			
Age							
15-24	41.2	39.5	46.6	41.8	23.7	17.2	2,384
15-19	39.0	41.1	46.1	41.0	23.2	16.4	1,198
20-24	43.5	38.0	47.1	42.5	24.2	18.0	1,186
25-29	35.8	30.2	38.3	33.5	17.1	11.8	1,643
30-39	35.4	31.5	38.5	34.7	18.5	13.3	2,175
40-49	35.5	26.6	36.7	32.1	17.1	12.0	1,172
Marital status							
Never married	56.0	52.3	60.6	57.1	35.2	27.2	1,399
Ever had sex	62.7	56.5	67.1	63.3	38.7	30.8	924
Never had sex	43.0	44.2	47.9	45.1	28.4	20.1	475
Married/living together	32.6	27.8	35.3	30.5	15.8	10.7	5,525
Divorced/separated/ widowed	38.8	37.4	47.1	43.5	18.7	13.1	450
Residence							
Urban	60.0	50.6	62.3	57.1	34.3	25.5	2,655
Rural	24.6	23.2	28.7	24.6	11.4	7.5	4,719
Region							
Eastern	28.1	34.8	44.2	38.1	19.8	12.7	1,325
Northern	26.4	27.2	28.4	26.5	13.2	9.4	3,001
Southern	31.7	23.3	35.4	30.0	14.7	9.5	1,542
Western	73.3	53.1	67.9	60.8	37.5	29.0	1,506
Education							
No education	24.9	22.2	28.3	23.9	10.8	6.8	4,860
Primary	42.4	39.4	48.2	39.9	18.2	12.0	960
Secondary or higher	73.3	63.1	75.2	72.9	48.2	37.7	1,554
Wealth quintile							
Lowest	20.9	20.0	26.1	20.0	8.9	6.0	1,382
Second	21.9	21.5	28.2	22.6	9.9	6.2	1,368
Middle	25.0	23.0	28.6	24.7	11.3	7.7	1,428
Fourth	41.8	39.1	44.6	42.7	23.6	16.1	1,472
Highest	69.3	55.7	69.4	64.4	39.5	30.1	1,723
Total 15-49	37.4	33.0	40.8	36.3	19.7	14.0	7,374

¹ Two most common local misconceptions about HIV transmission: mosquito bites and sharing food with a person who has AIDS

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

The results in Tables 13.3.1 and 13.3.2 indicate that not many Sierra Leonean adults have accurate knowledge about the ways in which the AIDS virus is transmitted. Only 37 percent of women and 57 percent of men know that a healthy-looking person can have HIV, the virus that causes AIDS. Furthermore, just 33 percent of women and 46 percent of men know that AIDS cannot be transmitted by mosquito bites, and 41 percent of women and 59 percent of men believe that AIDS cannot be transmitted by supernatural means. Finally, 36 percent of women and 49 percent of men know that the AIDS virus cannot be transmitted by sharing food with a person who has AIDS. Likewise, only 20 percent of women and 31 percent of men correctly reported that a healthy-looking

person can have the AIDS virus and rejected two of the most common misconceptions about the transmission of AIDS in Sierra Leone—namely, that AIDS can be transmitted by mosquito bites or by sharing food and utensils with someone who has AIDS.

Tables 13.3.1 and 13.3.2 provide an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge is defined as: 1) knowing that both condom use and limiting sexual intercourse to one HIV-negative person are HIV/AIDS prevention methods, 2) being aware that a healthy-looking person can have HIV, and 3) rejecting the two most common local misconceptions about the transmission of HIV, namely, that the AIDS virus can be transmitted by mosquito bites and by sharing food and utensils with someone who has HIV/AIDS. The 2008 SLDHS results indicate that only 14 percent of women and 25 percent of men age 15-49 in Sierra Leone have comprehensive knowledge of HIV/AIDS prevention and transmission.

Table 13.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention; and the percentage with comprehensive knowledge about AIDS, by background characteristics, Sierra Leone 2008

Background characteristic	Percentage of men who say that:				Percentage of men 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	AIDS cannot be transmitted by supernatural means	A person cannot contract HIV by sharing food with a person who has AIDS			
Age							
15-24	56.7	51.0	61.3	52.8	32.9	27.6	929
15-19	52.4	46.6	57.6	50.5	30.1	26.1	526
20-24	62.3	56.8	66.1	55.9	36.6	29.6	403
25-29	58.8	48.0	57.8	48.8	31.4	24.2	446
30-39	53.3	42.1	53.3	44.5	29.0	22.0	899
40-49	60.5	44.1	62.2	47.6	31.4	25.3	671
Marital status							
Never married	57.6	51.1	60.6	53.9	35.2	29.0	1,085
Ever had sex	64.3	56.6	66.8	58.7	39.9	32.8	702
Never had sex	45.4	41.0	49.3	45.2	26.4	22.1	383
Married/living together	56.2	43.2	56.9	45.1	29.0	22.7	1,767
Divorced/separated/ widowed	59.0	48.1	65.4	48.6	26.2	16.6	92
Residence							
Urban	74.6	63.1	73.9	66.3	47.9	38.8	1,123
Rural	45.8	35.9	49.0	37.5	20.8	16.3	1,822
Region							
Eastern	55.9	35.2	50.1	41.5	20.7	14.2	557
Northern	53.5	48.3	56.3	44.1	30.4	24.3	1,131
Southern	42.6	33.1	48.5	43.3	23.0	19.9	617
Western	77.4	65.0	79.5	67.2	49.3	39.9	639
Education							
No education	43.3	32.8	45.0	32.3	17.5	12.8	1,426
Primary	46.4	30.7	46.3	38.4	18.3	13.6	414
Secondary or higher	78.2	69.5	80.5	73.2	53.6	44.6	1,104
Wealth quintile							
Lowest	33.2	25.7	38.0	27.1	13.8	8.9	558
Second	47.6	38.2	50.5	36.3	22.0	17.2	520
Middle	52.5	40.0	54.3	45.5	25.4	20.4	530
Fourth	62.3	49.2	62.7	53.0	33.2	27.0	597
Highest	79.9	69.6	79.3	71.7	53.2	43.8	739
Total 15-49	56.8	46.3	58.5	48.5	31.2	24.9	2,944
50-59	48.3	39.9	50.6	42.3	25.1	20.3	336
Total men 15-59	56.0	45.6	57.7	47.8	30.5	24.4	3,280

¹ Two most common local misconceptions: mosquito bites and sharing a food with a person who has AIDS

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

Tables 13.3.1 and 13.3.2 show substantial variation in knowledge of AIDS by background characteristics. The proportions of women and men who reject the most common misconceptions and know that a healthy-looking person can have the AIDS virus, or who have comprehensive knowledge about AIDS, are highest in age group 20-24 and among never-married respondents who have ever had sex. For all indicators, the proportion of women and men with correct knowledge about HIV/AIDS prevention and transmission is higher in urban areas than in rural areas. Variations in knowledge of AIDS are also seen by region. Women in the Northern Region (9 percent) have the lowest level of comprehensive knowledge about AIDS, while women in the Western Region (29 percent) have the highest level. Among men, comprehensive knowledge ranges from 14 percent in the Eastern Region to 40 percent in the Western Region.

Education and wealth status are directly related to correct knowledge about common misconceptions about AIDS and comprehensive knowledge of HIV/AIDS prevention and transmission. Among women, for example, 38 percent of those with secondary or higher education have comprehensive knowledge about prevention and transmission of AIDS, compared with 7 percent of women with no education. Similarly, among men, the level of comprehensive knowledge is 45 percent among those with secondary or higher education, compared with 14 and 13 percent, respectively, among men with primary education or no education. Looking at wealth status, 6 percent of women in the lowest quintile have comprehensive knowledge about AIDS, compared with 30 percent of women in the highest wealth quintile. Similarly, 9 percent of men in the lowest quintile have comprehensive knowledge about AIDS, compared with 44 percent of men in the highest wealth quintile.

13.2 KNOWLEDGE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

Increasing the general level of knowledge about the transmission of HIV from mother to child, and about the use of antiretroviral drugs to reduce the risk of mother-to-child transmission (MTCT), is critical to preventing the spread of HIV from mother to child. To assess MTCT knowledge, respondents in the 2008 SL DHS were asked if the virus that causes AIDS can be transmitted from a mother to her baby during pregnancy, delivery, or breastfeeding and whether they know of any special drugs a mother with HIV can take to reduce the risk of transmission to the baby.

Table 13.4 shows that women are slightly less likely than men to know of the risk of mother-to-child transmission of HIV through breastfeeding (45 and 50 percent, respectively). Among women, those who are pregnant are more likely to have this knowledge than those who are not pregnant (52 and 44 percent, respectively). Smaller proportions of respondents (14 percent of women and 24 percent of men) are aware that a mother can reduce the risk of transmitting HIV to her child by taking special drugs during pregnancy.

Overall, about one in ten women (13 percent) and one in five men (20 percent) know that HIV can be transmitted through breastfeeding and that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy. Looking at marital status, knowledge is lowest among respondents who have never had sex and currently married women. A larger proportion of respondents in urban areas than in rural areas know about MTCT and the use of special drugs to reduce the risk of MTCT. Women and men living in the Western Region are markedly more likely to have MTCT knowledge than women and men living in other regions. As seen earlier, respondents' socio-economic status, as measured by level of education and wealth quintile, have a positive correlation with knowledge of MTCT.

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

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child through breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Sierra Leone 2008

Background characteristic	Percentage of women who know that:				Percentage of men who know that:			
	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding, and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding, and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	46.6	15.2	13.2	2,384	49.1	21.7	17.7	929
15-19	41.5	13.3	10.8	1,198	45.5	19.9	16.0	526
20-24	51.8	17.1	15.6	1,186	53.8	24.1	20.1	403
25-29	43.7	12.9	11.2	1,643	49.0	22.1	16.9	446
30-39	43.9	15.0	13.7	2,175	46.6	24.8	20.2	899
40-49	42.8	12.4	11.5	1,172	57.1	27.3	24.2	671
Marital status								
Never married	53.3	19.5	16.1	1,399	47.8	21.7	17.1	1,085
Ever had sex	60.1	22.2	18.5	924	54.5	24.4	20.3	702
Never had sex	40.1	14.2	11.5	475	35.5	16.6	11.3	383
Married/living together	41.6	12.6	11.6	5,525	50.8	25.0	21.1	1,767
Divorced/separated/widowed	53.9	16.0	14.6	450	64.7	31.3	27.0	92
Currently pregnant								
Pregnant	51.9	13.9	12.8	598	na	na	na	0
Not pregnant or not sure	43.9	14.2	12.6	6,776	na	na	na	0
Residence								
Urban	59.7	23.4	20.3	2,655	60.1	33.6	27.0	1,123
Rural	36.1	8.9	8.3	4,719	44.0	18.0	15.4	1,822
Region								
Eastern	39.6	12.1	10.9	1,325	38.8	12.0	9.6	557
Northern	35.9	10.6	8.6	3,001	47.9	24.0	19.6	1,131
Southern	39.9	10.0	9.6	1,542	49.9	17.8	16.4	617
Western	70.9	27.3	25.2	1,506	64.3	40.4	32.4	639
Education								
No education	35.1	8.3	7.7	4,860	40.7	15.9	13.3	1,426
Primary	52.8	14.4	13.4	960	42.4	15.0	12.6	414
Secondary or higher	69.1	32.3	27.7	1,554	65.3	37.8	30.9	1,104
Wealth quintile								
Lowest	32.0	7.1	6.6	1,382	35.3	9.1	8.5	558
Second	34.8	8.8	8.5	1,368	47.0	21.8	18.7	520
Middle	34.3	9.0	8.1	1,428	43.1	21.1	15.5	530
Fourth	50.0	15.1	12.7	1,472	57.1	28.0	25.1	597
Highest	66.2	27.6	24.6	1,723	62.9	35.6	28.0	739
Total 15-49	44.6	14.2	12.6	7,374	50.2	24.0	19.8	2,944
50-59	na	na	na	0	44.0	23.6	20.6	336
Total 15-59	na	na	na	0	49.5	24.0	19.9	3,280

na = Not applicable

13.3 STIGMA ASSOCIATED WITH AIDS AND ATTITUDES RELATED TO HIV/AIDS

Widespread stigma and discrimination in a population can adversely affect people's willingness to be tested as well as their adherence to antiretroviral therapy. Reduction of stigma and discrimination in a population is, thus, an important impetus to the success of programmes targeting HIV/AIDS prevention and control.

To assess the level of stigma, SLDHS respondents who had heard of AIDS were asked if they would be willing to care for a relative sick with AIDS in their own households, if they would be willing to buy fresh vegetables from a shopkeeper who has the AIDS virus, if they thought a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and if they would want to keep a family member's HIV status secret. Tables 13.5.1 and 13.5.2 show the results for women and men, respectively.

Both women and men tend to express more positive attitudes to the question on care for a family member sick with AIDS than to the questions about the HIV-positive shopkeeper selling vegetables or the HIV-positive female teacher. About half of women (49 percent) and three-fourths of men (73 percent) said they would be willing to care for a family member sick with AIDS in their home. About 60 percent of women and men said they would not want to keep secret that a family member is infected with HIV. These results indicate that individuals are generally supportive of providing a caring environment for family members who were sick with AIDS.

Women and men age 20-24, those who never-married who ever had sex, urban respondents, and those with secondary or higher education are somewhat more likely to say that they would be willing to care for a family member with AIDS in their home, compared with other respondents. There are marked regional variations, especially among women. Women in the Northern Region (37 percent) are the least likely to say they would take care of a relative sick with AIDS in their home, compared with 63 percent of women in the Western Region, and 47-53 percent of women in the other regions. Similarly, men in the Northern Region (62 percent) are the least likely to agree to take care of a family member with AIDS in their home, compared with men in the other regions (79-80 percent).

Empowering persons living with AIDS is a critical programme area. Survey data show that only 20 percent of women and 40 percent of men would buy fresh food from a shopkeeper with the AIDS virus, while 31 percent of women and 53 percent of men said that an HIV-positive female teacher should be allowed to continue teaching. The percentage expressing accepting attitudes on all four measures is just 5 percent for women and 15 percent for men age 15-49.

Higher education and urban residence are generally associated with more accepting attitudes towards non-relatives who are HIV positive and to greater willingness to care for relatives sick with AIDS in their own home. For example, the percentage of women expressing accepting attitudes towards a female teacher who is HIV positive but not sick is 44 percent among urban women, compared with 20 percent among rural women; it is 19 percent among women with no education, compared with 54 percent among those with higher education. On the other hand, respondents in rural areas, those in households in the lower wealth quintiles, and respondents with no education are generally more likely to say that they would not want to keep secret that a family member was HIV positive. Wealth also correlates with positive attitudes towards those who are HIV positive, the higher the wealth quintile, the more likely respondents are to show acceptance on all four indicators.

These results indicate that individuals are generally supportive of providing a caring environment for family members if they are HIV positive. This support can ensure early diagnosis and treatment, an approach that is encouraged by the national programme in Sierra Leone.

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

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes towards people with AIDS, by background characteristics, Sierra Leone 2008

Background characteristic	Percentage of women who:				Percentage of women expressing accepting 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	51.8	23.1	35.4	53.9	5.2	1,734
15-19	49.3	23.4	34.5	55.3	5.4	847
20-24	54.2	22.7	36.2	52.5	5.0	887
25-29	45.4	17.9	28.8	66.1	4.9	1,132
30-39	49.2	20.0	29.5	63.1	5.6	1,462
40-49	48.5	16.8	25.3	67.3	4.6	791
Marital status						
Never married	56.9	30.1	44.9	46.6	6.4	1,150
Ever had sex	59.4	31.1	45.6	46.0	6.9	818
Never had sex	50.8	27.7	43.2	48.1	5.2	332
Married/living together	46.3	17.1	26.2	66.1	4.8	3,610
Divorced/separated/ widowed	52.8	17.6	30.8	60.3	4.5	358
Residence						
Urban	57.0	27.5	43.7	47.5	6.2	2,321
Rural	42.6	13.9	19.9	72.7	4.3	2,798
Region						
Eastern	47.4	23.0	28.3	69.5	7.6	922
Northern	37.1	12.2	20.4	74.0	3.6	1,760
Southern	52.7	18.7	25.6	68.0	6.6	1,007
Western	62.5	28.9	48.5	35.7	4.4	1,430
Education						
No education	42.7	11.4	19.1	70.4	3.6	2,901
Primary	44.1	20.0	30.2	58.4	4.3	762
Secondary or higher	64.7	37.5	54.1	44.6	8.7	1,456
Wealth quintile						
Lowest	43.5	11.5	17.3	73.8	3.4	775
Second	42.5	14.5	19.6	71.0	3.8	776
Middle	38.2	12.9	20.4	72.4	3.4	833
Fourth	47.7	20.3	28.9	63.7	6.0	1,136
Highest	61.9	30.5	49.2	43.0	6.9	1,597
Total 15-49	49.1	20.1	30.7	61.3	5.1	5,118

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

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes towards people with HIV/AIDS, by background characteristics, Sierra Leone 2008

Background characteristic	Percentage of men who:				Percentage of men 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	71.3	41.1	59.5	54.1	13.6	754
15-19	65.4	37.0	53.1	53.9	12.1	409
20-24	78.4	46.0	67.0	54.5	15.4	345
25-29	68.6	38.2	47.3	56.7	12.6	379
30-39	76.0	40.5	51.0	61.9	15.8	730
40-49	73.4	40.3	50.9	63.8	15.9	579
Marital status						
Never married	70.3	42.1	58.5	53.1	14.0	873
Ever had sex	75.8	44.2	60.0	53.4	14.3	615
Never had sex	57.2	37.1	55.0	52.5	13.5	258
Married/living together	74.5	39.7	50.2	62.2	15.3	1,482
Divorced/separated/ widowed	68.8	30.6	45.0	68.1	10.7	87
Residence						
Urban	75.0	48.2	63.5	53.9	18.9	1,062
Rural	71.1	34.2	44.9	63.2	11.4	1,381
Region						
Eastern	79.6	43.0	49.2	69.8	17.2	490
Northern	61.5	34.4	47.9	61.2	13.6	890
Southern	78.6	36.5	46.1	52.0	12.3	438
Western	79.4	49.1	68.1	52.9	15.7	624
Education						
No education	69.0	29.7	40.0	67.5	11.7	1,054
Primary	70.4	32.4	46.0	62.1	14.0	327
Secondary or higher	77.3	53.2	68.1	50.0	17.8	1,061
Wealth quintile						
Lowest	64.9	27.8	35.2	63.5	10.2	369
Second	69.7	34.2	47.1	63.8	12.2	395
Middle	76.7	40.9	48.9	66.8	15.0	430
Fourth	75.6	41.7	56.5	58.7	16.9	528
Highest	74.1	48.6	65.2	50.2	16.5	720
Total 15-49	72.8	40.3	53.0	59.2	14.7	2,442
50-59	75.4	34.2	51.9	59.8	14.4	254
Total 15-59	73.0	39.7	52.9	59.2	14.6	2,696

13.4 ATTITUDES TOWARDS NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are of little use if people feel powerless to negotiate safer sex practices with their partners. In an effort to assess the ability of women to negotiate safer sex with a spouse who has an STI, women and men were asked if they thought that a wife is justified in refusing to have sexual intercourse with her husband or asking that he use a condom if she knows that he has an STI.

Table 13.6 shows that nearly two-thirds of women and three-fourths of men agree that a woman is justified in refusing to have sex with her husband if she knows he has an STI (62 percent of women and 76 percent of men). Over half of women (56 percent) and three-fourths of men (75 percent) believe that a woman is justified in asking her husband to use a condom if he has an STI. Over two-thirds of women (69 percent) and 80 percent of men agree with one or both statements.

There are some differences in these attitudes by background characteristics. Rural respondents, women and men age 15-19, and those who never married and never had sex are generally less supportive of women negotiating safer sex practices with their husbands, compared with urban respondents and those of other age groups and marital status. In terms of regional

variation, women and men in the Western Region are most supportive of a woman refusing to have sexual intercourse or asking that they use a condom, if she knows her husband has an STI (81 and 92 percent, respectively), while women and men in the Northern Region are the least supportive (62 and 71 percent, respectively). Respondents with higher education are more supportive of women negotiating safer sex with their husbands than those with less education.

Table 13.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who think 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, Sierra Leone 2008

Background characteristic	Percentage of women who think that a woman is justified in:				Percentage of men who think that a woman is justified in:			
	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of women	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of men
Age								
15-24	58.9	56.9	67.2	2,384	68.8	70.9	73.7	929
15-19	54.4	52.6	61.7	1,198	63.8	66.4	68.7	526
20-24	63.4	61.2	72.7	1,186	75.4	76.9	80.2	403
25-29	63.7	56.6	69.2	1,643	74.0	72.1	78.0	446
30-39	62.7	55.5	69.3	2,175	80.2	77.8	84.1	899
40-49	65.0	51.1	69.8	1,172	79.7	78.1	85.9	671
Marital status								
Never married	61.6	63.5	70.5	1,399	68.6	70.7	73.2	1,085
Ever had sex	70.0	71.2	79.0	924	76.4	78.1	80.6	702
Never had sex	45.4	48.3	53.8	475	54.3	57.2	59.8	383
Married/living together	61.5	53.1	67.6	5,525	79.3	77.0	84.2	1,767
Divorced/separated/ widowed	69.4	60.1	76.3	450	85.2	81.7	88.7	92
Residence								
Urban	66.2	66.1	76.6	2,655	80.6	82.4	85.1	1,123
Rural	59.7	49.5	64.2	4,719	72.5	70.2	77.4	1,822
Region								
Eastern	63.6	51.8	69.1	1,325	86.4	80.9	90.3	557
Northern	55.7	50.3	61.5	3,001	68.1	64.9	70.7	1,131
Southern	66.0	56.0	70.1	1,542	67.4	72.4	76.7	617
Western	69.3	68.5	81.0	1,506	87.2	89.4	92.0	639
Education								
No education	59.4	49.5	64.8	4,860	73.6	69.7	78.1	1,426
Primary	62.8	59.0	70.3	960	65.5	66.8	71.7	414
Secondary or higher	69.6	71.9	79.7	1,554	81.9	84.5	86.4	1,104
Total 15-49	62.0	55.5	68.7	7,374	75.6	74.8	80.3	2,944
50-59	na	na	na	0	80.2	75.2	85.9	336
Total 15-59	na	na	na	0	76.0	74.9	80.9	3,280

na = Not applicable

13.5 ATTITUDES TOWARDS CONDOM EDUCATION FOR YOUTH

Condom use is one of the main strategies for combating the spread of HIV. Social acceptance of condom use among young people is a key factor in the use of condoms to prevent the sexual transmission of HIV and other STIs, as well as preventing early pregnancy. However, educating youth about condoms is sometimes controversial, with some people saying it promotes early sexual experimentation. Other people favour teaching youth to abstain from sexual intercourse until they are married. To gauge attitudes towards education about condoms, SLDHS respondents were asked if they thought that children age 12-14 should be taught about using a condom to avoid AIDS. The results are shown in Table 13.7. Because the table focuses on adult opinions, the results are tabulated only for respondents age 18-49.

Table 13.7 Adult support of education about condom use to prevent AIDS				
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, Sierra Leone 2008				
Background characteristic	Agree that children age 12-14 should be taught about using a condom to avoid AIDS			
	Women		Men	
	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24	35.9	1,756	59.9	653
18-19	34.7	570	56.6	250
20-24	36.4	1,186	61.9	403
25-29	27.4	1,643	56.8	446
30-39	30.1	2,175	49.3	899
40-49	25.9	1,172	53.5	671
Marital status				
Never married	51.7	875	58.0	809
Married or living together	26.4	5,425	52.7	1,767
Divorced/separated/widowed	34.2	446	50.3	92
Residence				
Urban	46.8	2,347	62.8	997
Rural	21.4	4,399	49.0	1,671
Region				
Eastern	30.7	1,211	48.3	515
Northern	21.2	2,785	56.7	1,017
Southern	25.8	1,399	40.5	564
Western	52.8	1,350	68.5	572
Education				
No education	22.8	4,703	43.8	1,372
Primary	35.8	750	53.3	321
Secondary or higher	54.0	1,293	69.1	976
Wealth quintile				
Lowest	18.8	1,295	36.5	511
Second	22.2	1,280	50.3	477
Middle	21.4	1,323	56.9	490
Fourth	34.6	1,330	59.1	541
Highest	50.6	1,518	64.8	650
Total 18-49	30.2	6,746	54.2	2,669
50-59	na	0	40.1	336
Total 18-59	na	0	52.6	3,004

na = Not applicable

More men than women agree that children age 12-14 years should be taught about the use of condoms to avoid AIDS (54 percent of men and 30 percent of women age 15-49). Never married women and men and those under age 25 are somewhat more likely than other respondents to agree on safe sex education for children age 12-14. Urban women and men are more likely than their rural counterparts to agree on teaching children age 12-14 about condom use to avoid AIDS. By region, agreement on teaching children age 12-14 about the use of condoms ranges from high of 69 percent of men and 53 percent of women in the Western Region to 41 percent of men in the Southern Region and 21 percent of women in the Northern Region. The proportion of respondents who support teaching children age 12-14 about condoms increases with level of education and wealth quintile. For example, 51 percent of women with secondary or higher education, compared with 23 percent of women with no education, agree on instructing children 12-14 years about condoms. The figures for men are 69 and 44 percent, respectively.

13.6 HIGHER-RISK SEX

Given that most HIV infections in Sierra Leone are contracted through heterosexual contact, information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV.

The 2008 SLDHS included questions on respondents' sexual partners during their lifetime and in the 12 months preceding the survey. For male respondents, an additional question was asked on whether they paid anyone in exchange for sex during the 12 months preceding the interview. Information on the use of condoms at the last sexual encounter with each type of partner was collected for women and men. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behaviour.

13.6.1 Multiple Partners and Condom Use

Tables 13.8.1 and 13.8.2 show the percentage of women and men, respectively, age 15-49 years who had more than one sexual partner and the percentage who engaged in higher-risk sexual intercourse¹ in the past 12 months among all women and all men, and among those who had sex in the past 12 months.

The data show that women are far less likely than men to report having had two or more sexual partners in the past 12 months (4 percent of all women and 16 percent for all men). Furthermore, only 15 percent of all women reported having higher-risk sexual intercourse in the year before the survey, compared with 34 percent of all men.

Among respondents who had sex in the 12 months before the survey, only 5 percent of women reported having more than one sexual partner, compared with 21 percent of men. Similarly, 21 percent of women had higher-risk sex in the past 12 months, compared with 45 percent of men.

The 2008 SLDHS also assessed condom use among women and men with multiple partners or who had higher-risk sex in the 12 months preceding the survey. Although truly effective protection would require condom use at every sexual encounter, the sexual encounters covered here are those considered to pose the greatest risk of HIV transmission.

¹ Sexual intercourse with a non-marital, non-cohabiting partner

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

Among all women age 15-49, the percentage who had sexual intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months; among women age 15-49 who had sexual intercourse in the past 12 months, the percentage who had sexual intercourse with more than one partner and the percentage who had higher-risk sexual intercourse; among women who had more than one partner in the past 12 months, the percentage who used a condom at last sexual intercourse; among women who had higher-risk sexual intercourse in the past 12 months, the percentage who used a condom at last sexual intercourse with that person; and among women who ever had sexual intercourse, the mean number of sexual partners during lifetime, by background characteristics, Sierra Leone 2008

Background characteristic	All women (past 12 months)		Women who had sexual intercourse (past 12 months)		Women who had 2+ partners (past 12 months)		Women who had higher-risk sexual intercourse ¹ (past 12 months)		Women who ever had sexual intercourse	
	Percentage who had 2+ partners	Percentage who had higher-risk sexual intercourse ¹	Percentage who had 2+ partners	Percentage who had higher-risk sexual intercourse ¹	Percentage who had 2+ partners	Percentage who used a condom at last sexual intercourse	Percentage who used a condom at last sexual intercourse	Percentage who used a condom at last sexual intercourse	Mean number of sexual partners in lifetime	Number of women
Age										
15-24	4.0	26.6	6.4	42.6	12.2	12.2	9.5	634	1.9	1,838
15-19	3.7	29.5	7.0	56.1	10.6	631	7.6	354	1.6	764
20-24	4.3	23.6	5.9	32.7	13.6	856	12.0	281	2.1	1,074
25-29	3.5	11.2	4.8	15.1	6.3	1,218	6.1	184	2.1	1,517
30-39	3.2	8.9	4.2	11.8	3.0	1,632	3.6	193	2.4	1,957
40-49	2.9	6.5	4.0	8.9	(0.0)	860	2.7	76	2.5	1,044
Marital status										
Never married	6.0	53.4	10.8	95.9	14.8	778	8.5	747	2.2	871
Married or living together	2.9	3.1	3.8	4.1	2.8	4,185	7.2	172	2.2	5,087
Divorced/separated/widowed	2.8	37.7	5.5	72.5	*	234	3.1	169	2.9	398
Residence										
Urban	4.4	26.9	6.1	36.9	9.2	1,934	8.5	714	2.5	2,195
Rural	2.9	7.9	4.3	11.4	4.7	3,262	5.3	373	2.1	4,160
Region										
Eastern	4.4	13.8	5.9	18.3	7.6	991	7.1	183	2.4	1,192
Northern	1.7	9.0	2.6	13.8	(10.6)	1,953	5.5	270	1.9	2,672
Southern	6.3	14.1	8.6	19.2	3.0	1,134	7.3	217	2.4	1,278
Western	3.2	27.8	4.4	37.4	9.3	1,119	8.9	418	2.6	1,213
Education										
No education	2.8	6.7	3.9	9.4	4.4	3,458	3.3	323	2.2	4,384
Primary	4.3	18.8	6.5	28.9	2.5	626	6.3	181	2.3	766
Secondary or higher	5.2	37.6	7.2	52.4	13.0	1,113	10.1	584	2.4	1,206
Wealth quintile										
Lowest	2.3	6.2	3.4	9.0	0.0	947	2.2	86	2.1	1,179
Second	2.5	7.4	3.7	10.9	2.7	929	4.0	101	2.0	1,224
Middle	3.8	10.1	5.5	14.6	5.2	992	4.3	145	2.1	1,279
Fourth	4.5	17.7	6.4	25.1	11.9	1,039	7.5	261	2.4	1,287
Highest	4.0	28.7	5.3	38.4	8.2	1,290	9.9	495	2.4	1,387
Total	3.5	14.8	4.9	20.9	6.8	5,197	7.4	1,088	2.2	6,356

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

¹ Sexual intercourse with a non-marital, non-cohabiting partner

Among women who had more than one partner in the 12 months before the survey, only 7 percent said they used a condom during the most recent sexual intercourse, far lower than the 15 percent reported by men. Among women who reported having had higher-risk intercourse in the past 12 months, only 7 percent used a condom at the last higher-risk sex (Table 13.8.1). For men, the comparable figure is again higher—22 percent, indicating that men are three times as likely to practice safe sex as women (Table 13.8.2). The lower levels of multiple partnership, higher-risk sexual intercourse, and condom use reported by women, compared with men, may be accurate or may be due to reluctance on the part of women to report behaviour that is not generally accepted. Lack of condom negotiation skills among women may account for some aspects of the pattern.

Among both women and men who had sexual intercourse in the 12 months preceding the survey, the prevalence of higher-risk sex generally decreases as age increases. By definition, higher-risk sex is most common among women and men who have never married and those who are currently divorced, separated, or widowed. This is because those who are not married but are sexually active are by definition having sex with someone who is not a marital partner. For this reason, almost all (96 percent) never-married women and about nine in ten (89 percent) never-married men had higher-risk sexual intercourse in the 12 months preceding the survey. One in four (25 percent) currently married men had higher-risk sexual intercourse. Respondents in urban areas and those in the Western Region are more likely than other respondents to have had higher-risk sexual intercourse in the past 12 months. Likewise, the prevalence of higher-risk sex generally increases with increasing level of education and wealth quintile.

Condom use among respondents who had higher-risk sexual intercourse in the past 12 months is more likely among urban residents, those in age group 20-24, and those living in the Western Region. Among females, condom use with higher-risk sexual intercourse is higher among never-married women than those of another marital status. Condom use at last higher-risk sexual intercourse is higher among respondents with secondary or higher education and those in the highest wealth quintile. The differences in condom use are more pronounced among men than women.

The 2008 SLDHS results indicate that while the proportion of young women engaging in higher-risk sexual intercourse has not changed (43 percent in both the 2008 SLDHS and the 2005 MICS), the proportion using condoms at last higher-risk sexual intercourse has declined from 20 percent in the 2005 MICS to 10 percent in the 2008 SLDHS (SSL and UNICEF, 2005).

Women have an average of 2 partners in their lifetime. There are no significant variations in the number of lifetime partners by background characteristics. The mean number of lifetime sexual partners reported by men is 7, but this figure varies substantially across sub-groups. As expected, the number is larger for older men (3 for men age 15-19, compared with 10 for men age 40-49). Rural men have more partners than urban men (8 and 6 sexual partners, respectively). There are also notable differences by region, from 5 sexual partners in the Northern Region to 13 in the Southern Region. The mean number of lifetime sexual partners tends to decrease with increasing wealth quintile, i.e., men in the lower wealth quintiles have more partners (7-8 partners) than men in the highest wealth quintiles (5 partners).

Based on these figures, one could suggest that Sierra Leonean women are more committed in their sexual relationships than their male counterparts; however, other factors may be involved such as the practice of polygynous marriage in Sierra Leone.

Table 13.8.2. Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months; among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had sexual intercourse with more than one partner and the percentage who had higher-risk sexual intercourse; among men who had more than one partner in the past 12 months, the percentage who used a condom at last sexual intercourse; and among men who had higher-risk sexual intercourse in the past 12 months, the percentage who used a condom at last sexual intercourse with that partner; and among men who ever had sexual intercourse, the mean number of sexual partners during lifetime, by background characteristics, Sierra Leone 2008

Background characteristic	All men (past 12 months)			Men who had sexual intercourse (past 12 months)			Men who had 2+ partners (past 12 months)			Men who had higher-risk sexual intercourse ¹ (past 12 months)			Men who ever had sexual intercourse	
	Percentage who had 2+ partners	Percentage who had higher-risk sexual intercourse ¹	Number of men	Percentage who had 2+ partners	Percentage who had higher-risk sexual intercourse ¹	Number of men	Percentage who used a condom at last sexual intercourse	Percentage who used a condom at last sexual intercourse with that partner	Number of men	Percentage who used a condom at last sexual intercourse with that partner	Number of men	Mean number of sexual partners in lifetime	Number of men	Mean number of sexual partners in lifetime
Age														
15-24	10.1	43.4	929	18.9	81.8	493	29.2	22.4	93	22.4	403	3.7	456	
15-19	4.4	32.4	526	12.0	89.0	192	(13.6)	15.1	23	15.1	171	2.6	199	
20-24	17.5	57.8	403	23.4	77.2	301	34.3	27.7	70	27.7	233	4.5	257	
25-29	18.3	44.5	446	22.1	53.5	371	21.6	23.5	82	23.5	198	6.5	239	
30-39	18.8	28.2	899	21.5	32.3	786	10.1	21.1	169	21.1	254	8.8	521	
40-49	17.5	20.8	671	20.5	24.5	570	7.0	20.8	117	20.8	140	9.7	338	
Marital status														
Never married	10.5	50.2	1,085	18.7	89.1	612	32.8	23.6	114	23.6	545	4.2	517	
Married or living together	18.9	21.9	1,767	21.8	25.3	1,530	9.0	19.7	334	19.7	387	8.4	984	
Divorced/separated/widowed	13.9	67.7	92	16.4	79.6	79	*	23.2	13	23.2	63	12.2	53	
Residence														
Urban	16.0	43.2	1,123	21.3	57.5	844	27.8	34.4	180	34.4	486	6.2	540	
Rural	15.4	28.0	1,822	20.4	37.0	1,377	7.2	10.3	281	10.3	510	7.6	1,014	
Region														
Eastern	21.3	33.9	557	27.7	44.2	427	7.4	13.5	118	13.5	189	6.6	373	
Northern	11.3	25.6	1,131	15.9	35.9	808	7.5	11.8	128	11.8	290	5.0	539	
Southern	15.0	35.5	617	19.2	45.6	481	14.8	18.1	92	18.1	219	12.5	348	
Western	19.1	46.4	639	24.1	58.8	505	31.3	40.5	122	40.5	297	5.5	294	
Education														
No education	15.2	26.4	1,426	19.1	33.0	1,138	7.4	9.8	217	9.8	376	7.2	793	
Primary	14.7	31.6	414	22.7	48.9	267	10.8	15.7	61	15.7	131	7.6	198	
Secondary or higher	16.6	44.2	1,104	22.5	59.9	815	25.9	33.2	184	33.2	488	6.8	563	
Wealth quintile														
Lowest	12.4	25.7	558	16.4	33.9	422	1.2	3.5	69	3.5	143	7.1	330	
Second	15.7	26.2	520	20.7	34.7	394	4.9	12.7	81	12.7	137	7.9	299	
Middle	16.8	29.5	530	21.9	38.5	405	12.0	14.1	89	14.1	156	8.3	299	
Fourth	15.3	35.3	597	20.5	47.2	446	12.8	20.2	91	20.2	211	7.2	278	
Highest	17.6	47.2	739	23.5	63.0	553	33.1	38.0	130	38.0	348	5.4	348	
Total 15-49	15.7	33.8	2,944	20.8	44.8	2,221	15.2	22.1	461	22.1	995	7.1	1,554	
50-59	21.4	12.0	336	25.5	14.3	281	4.6	6.6	72	6.6	40	9.5	163	
Total 15-59	16.2	31.6	3,280	21.3	41.4	2,502	13.8	21.5	533	21.5	1,035	7.4	1,717	

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
¹ Sexual intercourse with a non-marital, non-cohabiting partner

13.6.2 Transactional Sex

Transactional sex involves the exchange of sex for money, favours, or gifts. Transactional sex is associated with high risk of contracting HIV and other sexually transmitted infections because of compromised power relations and the tendency towards multiple partnerships as a result. In the 2008 SLDHS, men who had had sexual intercourse in the past 12 months were asked if they had paid anyone for sex during this period.

The results in Table 13.9 indicate that only 2 percent of men paid for sex in the 12 months preceding the survey. Data show that younger men age 15-19 are the less likely to pay for sex than older men. Divorced, widowed, and separated men are somewhat more likely to pay for sex than never-married men or those currently married or living with a woman. Looking at regions, men in the Southern Region are more likely to pay for sex (5 percent) than men in other regions (1-2 percent).

Table 13.9 Payment for sexual intercourse: Men		
Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, by background characteristics, Sierra Leone 2008		
Background characteristic	Payment for sexual intercourse in the past 12 months	
	Percentage who paid for sexual intercourse	Number of men
Age		
15-24	1.5	929
15-19	0.7	526
20-24	2.5	403
25-29	3.8	446
30-39	2.4	899
40-49	1.2	671
Marital status		
Never married	2.3	1,085
Married or living together	1.8	1,767
Divorced/separated/ widowed	4.4	92
Residence		
Urban	1.9	1,123
Rural	2.2	1,822
Region		
Eastern	0.6	557
Northern	1.6	1,131
Southern	4.7	617
Western	1.5	639
Education		
No education	1.9	1,426
Primary	2.0	414
Secondary or higher	2.3	1,104
Wealth quintile		
Lowest	1.1	558
Second	2.2	520
Middle	3.7	530
Fourth	1.5	597
Highest	1.8	739
Total 15-49	2.0	2,944
50-59	0.8	336
Total 15-59	1.9	3,280

13.7 COVERAGE OF HIV COUNSELLING AND TESTING

Knowledge of their HIV status helps people who are HIV negative make decisions that will reduce risk and increase the use of safe sex practices to remain disease free. For those who are HIV positive, knowledge of their status allows them to take action to protect their sexual partners, to access

treatment, and to plan for the future. In the 2008 SLDHS, respondents were asked whether they had ever been tested for HIV. If they said that they had been tested, respondents were asked when they were most recently tested, whether they had received the results of their last test, and where they had been tested. If they had never been tested, they were asked if they knew a place where they could go to be tested. Tables 13.10.1 and 13.10.2 present the results of these questions for women and men, respectively.

Tables 13.10.1 and 13.10.2 show that only 27 percent of women and 33 percent of men know where to get an HIV test. Even fewer have ever been tested; 13 percent of women and 8 percent of men age 15-49 have ever had an HIV test and, in the past 12 months, only 4 percent of women and 3 percent of men have been tested and received their test results.

Table 13.10.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Sierra Leone 2008

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and whether they received the results of the last HIV test			Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
		Ever tested, received results	Ever tested, did not receive results	Never tested ¹				
Age								
15-24	29.7	9.0	3.3	87.6	100.0	12.4	4.4	2,384
15-19	25.5	5.6	1.8	92.6	100.0	7.4	3.3	1,198
20-24	34.0	12.5	4.9	82.7	100.0	17.3	5.6	1,186
25-29	28.0	10.8	4.2	85.0	100.0	15.0	4.7	1,643
30-39	27.8	10.8	3.2	86.0	100.0	14.0	4.4	2,175
40-49	20.5	5.8	1.9	92.3	100.0	7.7	2.2	1,172
Marital status								
Never married	40.3	12.9	1.9	85.2	100.0	14.8	6.3	1,399
Ever had sex	48.7	18.0	2.9	79.2	100.0	20.8	8.5	924
Never had sex	24.0	3.0	0.0	97.0	100.0	3.0	1.9	475
Married/living together	23.7	8.7	3.5	87.8	100.0	12.2	3.7	5,525
Divorced/separated/widowed	31.2	8.1	4.9	87.0	100.0	13.0	2.2	450
Residence								
Urban	46.0	18.8	3.8	77.4	100.0	22.6	8.2	2,655
Rural	16.8	4.2	3.0	92.9	100.0	7.1	1.8	4,719
Region								
Eastern	21.5	5.6	2.8	91.6	100.0	8.4	2.5	1,325
Northern	17.2	4.1	2.8	93.1	100.0	6.9	1.5	3,001
Southern	26.5	7.6	3.2	89.2	100.0	10.8	4.2	1,542
Western	53.5	25.5	4.6	70.0	100.0	30.0	10.6	1,506
Education								
No education	16.8	4.7	2.8	92.5	100.0	7.5	1.9	4,860
Primary	32.0	10.2	5.2	84.7	100.0	15.3	4.4	960
Secondary or higher	57.5	23.7	3.6	72.7	100.0	27.3	10.8	1,554
Wealth quintile								
Lowest	12.9	2.3	2.0	95.8	100.0	4.2	0.9	1,382
Second	16.3	5.3	2.2	92.5	100.0	7.5	2.5	1,368
Middle	18.4	3.8	3.7	92.5	100.0	7.5	1.8	1,428
Fourth	30.7	8.9	5.0	86.1	100.0	13.9	4.3	1,472
Highest	52.2	23.6	3.3	73.1	100.0	26.9	9.6	1,723
Total	27.3	9.4	3.3	87.3	100.0	12.7	4.1	7,374

¹ Includes 'don't know/missing'

Knowledge about where to get an HIV test is much more common among women and men in urban areas than those in rural areas and it is highest among respondents living in the Western Region, which may reflect the urban bias in the distribution of HIV testing services in Sierra Leone. Knowledge of the various sites for HIV testing services is also higher among educated women and men and among those in the higher wealth quintiles.

Table 13.10.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Sierra Leone 2008

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and whether they received the results of the last HIV test			Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of men
		Ever tested, received results	Ever tested, did not receive results	Never tested ¹				
Age								
15-24	31.4	3.2	0.9	95.9	100.0	4.1	1.2	929
15-19	26.2	1.4	0.5	98.1	100.0	1.9	0.4	526
20-24	38.3	5.6	1.4	93.0	100.0	7.0	2.2	403
25-29	33.5	7.7	1.5	90.9	100.0	9.1	4.0	446
30-39	32.3	9.1	1.8	89.1	100.0	10.9	4.8	899
40-49	34.4	9.0	1.2	89.7	100.0	10.3	4.5	671
Marital status								
Never married	32.7	4.3	1.2	94.5	100.0	5.5	1.6	1,085
Ever had sex	39.0	6.0	1.4	92.6	100.0	7.4	2.4	702
Never had sex	21.1	1.3	0.8	97.8	100.0	2.2	0.2	383
Married/living together	32.1	8.7	1.5	89.8	100.0	10.2	4.6	1,767
Divorced/separated/ widowed	45.2	6.4	0.0	93.6	100.0	6.4	2.4	92
Residence								
Urban	54.9	13.2	1.6	85.2	100.0	14.8	6.5	1,123
Rural	19.0	3.2	1.1	95.6	100.0	4.4	1.6	1,822
Region								
Eastern	26.2	3.5	1.7	94.9	100.0	5.1	1.3	557
Northern	21.7	3.8	1.2	95.0	100.0	5.0	2.3	1,131
Southern	28.2	5.3	1.2	93.5	100.0	6.5	3.3	617
Western	62.2	17.5	1.3	81.2	100.0	18.8	7.5	639
Education								
No education	14.4	1.9	0.5	97.6	100.0	2.4	1.4	1,426
Primary	26.5	3.6	2.9	93.5	100.0	6.5	1.7	414
Secondary or higher	58.7	14.9	1.8	83.3	100.0	16.7	6.7	1,104
Wealth quintile								
Lowest	12.4	1.2	0.6	98.2	100.0	1.8	0.6	558
Second	17.9	2.6	1.5	95.8	100.0	4.2	2.2	520
Middle	22.8	4.5	1.0	94.5	100.0	5.5	2.2	530
Fourth	36.8	6.1	2.0	91.9	100.0	8.1	2.8	597
Highest	62.2	17.0	1.4	81.6	100.0	18.4	7.9	739
Total 15-49	32.7	7.0	1.3	91.7	100.0	8.3	3.4	2,944
50-59	27.5	3.4	1.0	95.6	100.0	4.4	1.9	336
Total 15-59	32.2	6.7	1.3	92.1	100.0	7.9	3.3	3,280

¹ Includes 'don't know/missing'

13.7.1 HIV Testing during Antenatal Care

One of the tragic consequences of HIV infection in women is the transmission of the virus to their children. This can occur during pregnancy, at the time of delivery, or through breastfeeding. Worldwide, the effects of mother-to-child transmission (MTCT) of HIV are staggering. As part of the strategy for the prevention of mother-to-child transmission of HIV, all women should be counselled about HIV/AIDS during antenatal care and offered an HIV test. In the 2008 SLDHS, women age 15-49 who gave birth in the two years preceding the survey were asked whether they received counselling during antenatal care for their most recent birth, whether they were offered and accepted a test for the AIDS virus as part of their antenatal care, and if tested, whether they received the test results.

Table 13.11 shows that among women who gave birth in the two years preceding the survey, 23 percent received HIV counselling during antenatal care for their most recent birth, and about one in ten of these women (10 percent) were offered and accepted an HIV test and received the results of the test. Overall, only 8 percent of women who gave birth in the two years preceding the survey were counselled about HIV, were offered and voluntarily accepted an HIV test, and received the test results. Women age 20-24, those living in urban areas, women in the Western Region, and those with secondary or higher education, are more likely than other women to have received all three services.

Table 13.11 Pregnant women counselled and tested for HIV					
Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counselling 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, Sierra Leone 2008					
Background characteristic	Percentage who received HIV counselling during antenatal care	Percentage who were offered and accepted an HIV test during antenatal care and who ² :		Percentage who were counselled about HIV, were offered and accepted an HIV test, and who received results ²	Number of women who gave birth in the past two years ³
		Received results	Did not receive results		
Age					
15-24	25.9	12.9	3.1	10.6	759
15-19	22.9	10.3	3.0	7.6	260
20-24	27.5	14.2	3.1	12.2	498
25-29	20.3	10.6	2.9	7.9	759
30-39	22.8	8.7	4.3	7.2	801
40-49	16.4	5.7	3.1	3.3	160
Residence					
Urban	40.8	26.8	5.0	20.7	681
Rural	15.7	4.1	2.8	3.5	1,797
Region					
Eastern	15.1	4.8	2.8	4.0	500
Northern	14.6	4.7	2.7	4.3	1,114
Southern	27.0	6.3	4.0	5.2	507
Western	51.5	41.4	5.7	30.7	357
Education					
No education	16.1	4.9	2.9	4.2	1,819
Primary	31.2	13.5	5.4	10.9	339
Secondary or higher	50.2	37.9	4.3	28.3	319
Total 15-49	22.6	10.4	3.4	8.2	2,478

¹ In this context, 'counselled' 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.

13.8 MALE CIRCUMCISION

Male circumcision is widely practiced in Sierra Leone and often serves as a rite of passage to adulthood. Recently, male circumcision has been shown to be associated with lower transmission of STIs, including HIV (WHO and UNAIDS, 2007). To examine this relationship, men interviewed in the 2008 SLDHS were asked if they were circumcised.

Table 13.12 shows that male circumcision is indeed widespread in Sierra Leone, with almost all men being circumcised (96 percent). This is seen for all ages, residential locations, and levels of education.

13.9 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Sexually transmitted infections are closely associated with HIV because they increase the likelihood of contracting HIV and share similar risk factors. In the 2008 SLDHS, all respondents who ever had sex were asked if they had had a sexually transmitted infection (STI) or symptoms of an STI (including bad-smelling/ abnormal genital discharge and genital sore or ulcer) in the 12 months preceding the survey.

Table 13.13 shows the self-reported prevalence of STIs and STI symptoms among women and men who have ever had sex. The data indicate that 9 percent of women and 7 percent of men who have ever had sex reported having had an STI in the 12 months before the survey. A higher percentage of women (15 percent) than men (8 percent) reported having had an abnormal genital discharge. Furthermore, 12 percent of women and 4 percent of men reported having had a genital sore or ulcer in the 12 months before the survey. Overall, 19 percent of women and 11 percent of men age 15-49 have either had an STI or symptoms of an STI in the 12 months preceding the survey.

According to Table 13.13, respondents under age 30 are more likely to report having had an STI or symptoms of an STI than those who are age 30 and older. Currently married men and women are less likely than those who have never married or are divorced, separated, or widowed, to report having had an STI or symptoms of an STI in the past 12 months. Urban respondents are more affected by STIs than their rural counterparts, the difference being more pronounced among women (25 percent of urban women, compared with 16 percent of rural women).

Women and men in the Western Region (32 and 14 percent, respectively) are more likely to report STI symptoms than respondents in other regions. There is a positive association between the reported prevalence of an STI or symptoms of an STI and level of education. For example, 24 percent of women with secondary or higher education reported having had an STI or symptoms of an STI in the past 12 months, compared with 18 percent of women with no education. Table 13.13 also shows that among men, those who are not circumcised are somewhat more likely to report STI symptoms than those who are circumcised (15 and 11 percent, respectively).

Background characteristic	Percentage circumcised	Number of men
Age		
15-24	95.8	929
15-19	95.2	526
20-24	96.7	403
25-29	95.4	446
30-39	97.4	899
40-49	94.6	671
Residence		
Urban	97.0	1,123
Rural	95.3	1,822
Region		
Eastern	97.9	557
Northern	94.4	1,131
Southern	95.6	617
Western	97.4	639
Education		
No education	95.2	1,426
Primary	96.9	414
Secondary or higher	96.6	1,104
Total 15-49	96.0	2,944
50-59	96.8	336
Total 15-59	96.1	3,280

Table 13.13 Self-reported prevalence of sexually transmitted infections (STIs) and STIs symptoms

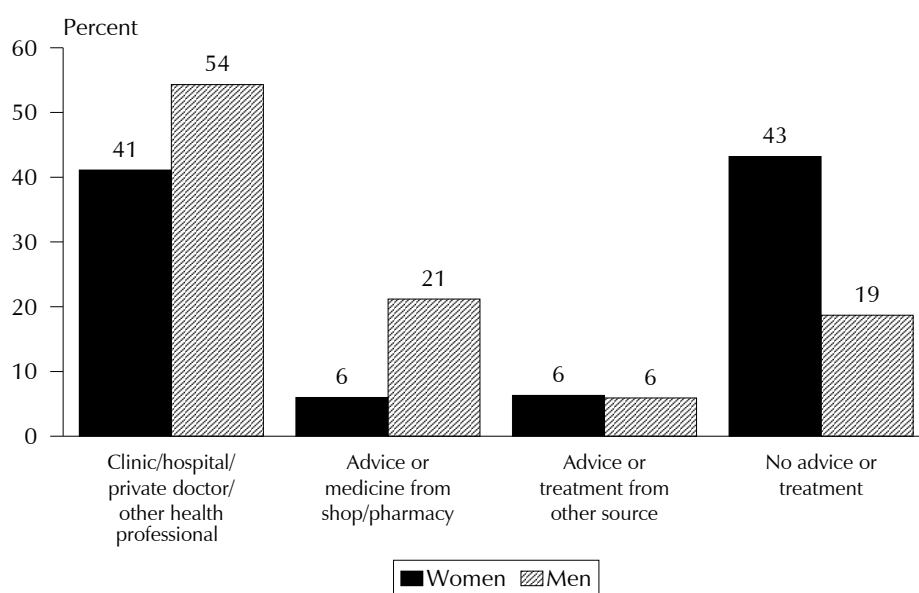
Among women and men age 15-49 who ever had sexual intercourse, the percentage who reported having an STI or symptoms of an STI in the past 12 months, by background characteristics, Sierra Leone 2008

Background characteristic	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/ ulcer	STI/genital discharge/ sore or ulcer		STI	Bad smelling/ abnormal genital discharge	Genital sore/ ulcer	STI/genital discharge/ sore or ulcer	
Age										
15-24	8.7	16.0	13.0	20.2	1,916	6.8	8.2	4.0	12.5	568
15-19	9.4	14.7	12.9	19.5	783	4.1	4.3	3.5	8.1	226
20-24	8.2	16.9	13.1	20.8	1,133	8.6	10.8	4.3	15.5	343
25-29	8.6	17.0	13.8	21.7	1,636	9.3	11.9	4.8	15.1	428
30-39	8.9	14.9	9.8	18.6	2,175	6.8	8.4	3.9	10.6	899
40-49	7.2	12.6	9.7	15.8	1,172	5.4	6.0	3.3	8.9	666
Marital status										
Never married	9.4	18.1	12.6	23.5	924	8.5	10.6	4.1	14.8	702
Married or living together	8.2	14.5	11.5	18.3	5,525	5.8	7.0	3.6	9.5	1,767
Divorced/separated/widowed	9.6	19.4	11.3	22.8	450	15.7	16.7	7.5	20.9	92
Male circumcision										
Circumcised	na	na	na	na	0	6.9	8.3	3.8	11.3	2,455
Not circumcised	na	na	na	na	0	5.2	10.5	5.6	15.2	54
Residence										
Urban	9.8	20.3	12.8	25.0	2,383	7.6	8.8	3.9	12.7	959
Rural	7.8	12.7	11.0	16.3	4,515	6.5	8.0	3.9	10.6	1,602
Region										
Eastern	13.3	16.1	14.3	19.7	1,248	5.5	5.4	1.7	7.4	496
Northern	6.7	12.5	10.1	16.2	2,853	6.4	8.3	4.0	11.0	944
Southern	6.5	11.6	6.8	13.6	1,457	8.0	10.0	4.4	12.4	544
Western	10.0	24.5	17.6	31.8	1,341	7.7	9.2	5.3	14.4	578
Education										
No education	7.8	13.8	11.4	17.5	4,757	6.2	7.6	3.8	10.2	1,331
Primary	10.8	16.1	13.1	22.2	829	6.2	7.3	3.8	11.3	301
Secondary or higher	9.5	20.4	11.8	24.3	1,313	8.0	9.6	4.2	13.0	929
Total 15-49	8.5	15.3	11.6	19.3	6,899	6.9	8.3	3.9	11.4	2,561
50-59	na	na	na	na	0	3.2	3.7	1.8	5.4	335
Total 15-59	na	na	na	na	0	6.4	7.8	3.7	10.7	2,896

Note: Total includes 53 men with information missing on male circumcision
na = Not applicable

Figure 13.1 shows the proportion of women and men reporting an STI or symptoms of an STI who sought advice or treatment from various sources. Most women and men seek treatment from a health facility or health professional (41 percent of women and 54 percent of men). However, more than two in five women (43 percent) and about one in five men (19 percent) do not get any advice or treatment.

Figure 13.1 Women and Men Age 15-49 Who Sought Advice or Treatment for STIs



Sierra Leone, 2008

13.10 PREVALENCE OF MEDICAL INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices such as reuse of injection equipment. To measure the potential risk of transmission of HIV associated with medical injections, respondents in the 2008 SLDHS were asked if they had received an injection in the past 12 months, and if so, they were asked if their last injection was given with a syringe from a new, unopened package. It should be noted that medical injections can be self-administered (e.g., insulin for diabetes). These injections were not included in the calculation.

Table 13.14 shows that 36 percent of women and 39 percent of men received a medical injection in the past 12 months. The average number of injections was 1.6 among women and 2.2 among men. The potential risk of transmission of HIV associated with such injections is very low because a large majority of respondents—96 percent of women and 93 percent of men—who received medical injections reported that the syringe and needle were taken from a new, unopened package. These figures are encouraging for Sierra Leoneans, especially for the Ministry of Health and Sanitation, because contaminated needles can be a medium for transmitting HIV.

Both the likelihood of receiving an injection in the past 12 months and the likelihood that the injection was safe generally increase with level of education and wealth quintile. Injections are particularly common among urban residents and respondents in the Western and Southern Regions.

Table 13.14 Prevalence of medical injections

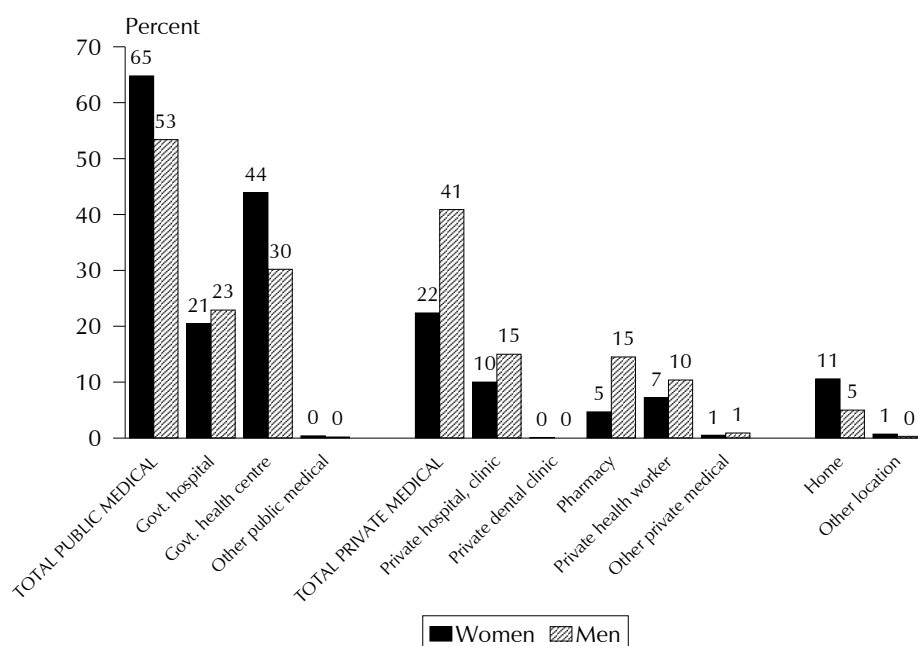
Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Sierra Leone 2008

Background characteristic	Women					Men				
	Percentage who received a medical injection in past 12 months	Average number of medical injections per person in past 12 months	Number of women	For last injection, syringe and needle taken from new, unopened package	Number of women receiving medical injections in past 12 months	Percentage who received a medical injection in past 12 months	Average number of medical injections per person in past 12 months	Number of men	For last injection, syringe and needle taken from new, unopened package	Number of men receiving medical injections in past 12 months
Age										
15-24	35.6	1.5	2,384	96.3	849	31.9	1.5	929	90.7	296
15-19	31.8	1.1	1,198	95.7	381	28.2	1.2	526	86.4	148
20-24	39.5	1.8	1,186	96.7	468	36.7	1.8	403	94.9	148
25-29	36.9	1.5	1,643	96.3	606	35.9	1.5	446	93.2	160
30-39	36.7	1.8	2,175	94.2	799	42.5	2.7	899	93.7	382
40-49	33.7	1.8	1,172	97.4	395	44.2	2.8	671	94.8	297
Residence										
Urban	42.8	2.1	2,655	97.9	1,137	49.3	2.9	1,123	93.8	553
Rural	32.0	1.3	4,719	94.2	1,512	31.9	1.7	1,822	92.5	582
Region										
Eastern	39.9	1.8	1,325	93.1	528	50.2	2.7	557	91.5	279
Northern	29.7	1.2	3,001	94.3	890	29.2	1.7	1,131	85.8	331
Southern	35.0	1.5	1,542	95.9	539	28.2	1.5	617	98.7	174
Western	45.9	2.5	1,506	99.8	691	54.9	3.2	639	98.6	351
Education										
No education	31.6	1.4	4,860	94.4	1,536	32.7	1.7	1,426	93.1	466
Primary	40.3	2.0	960	97.2	387	36.1	2.1	414	94.3	149
Secondary or higher	46.7	2.2	1,554	98.0	726	47.1	2.7	1,104	92.8	520
Wealth quintile										
Lowest	28.5	1.1	1,382	92.3	394	27.4	1.4	558	90.8	153
Second	32.4	1.5	1,368	94.5	443	34.1	1.9	520	92.1	178
Middle	31.8	1.3	1,428	94.6	455	34.4	1.5	530	93.5	183
Fourth	37.7	1.7	1,472	95.9	555	37.5	2.5	597	92.6	224
Highest	46.5	2.3	1,723	98.9	801	53.9	3.1	739	94.7	398
Total 15-49	35.9	1.6	7,374	95.8	2,649	38.5	2.2	2,944	93.1	1,135
Total 15-59	na	na	0	na	0	38.6	2.2	3,280	92.6	1,267

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist or other health worker.
na = Not applicable

Respondents who had had an injection in the past 12 months were asked where they obtained their last injection. The information is summarized in Figure 13.2. Nearly two-thirds of women (65 percent) and more than half of men age 15-49 (53 percent) received their last medical injection from a public sector facility. Furthermore, about one in five women (22 percent) and two in five men (41 percent) received their last injection from a private medical facility.

Figure 13.2 Facility Where Last Medical Injection Was Received



Sierra Leone, 2008

13.11 HIV/AIDS-RELATED KNOWLEDGE AND SEXUAL BEHAVIOUR AMONG YOUTH

This section addresses knowledge of HIV/AIDS issues and related sexual behaviour among youth age 15-24. Special attention is paid to this group because it accounts for half of all new HIV cases worldwide (Ross et al., 2006). In addition to knowledge of HIV transmission, data are presented on age at first sex, condom use, age differences between sexual partners, sex related to alcohol use, and voluntary counselling and testing for HIV.

13.11.1 HIV/AIDS-related Knowledge among Young Adults

Young respondents were asked the same set of questions on beliefs about HIV transmission as other respondents. Information on the overall level of knowledge of the major ways to avoid HIV and rejection of the major misconceptions about the transmission of HIV are shown in Tables 13.2, 13.3.1, and 13.3.2. In general, the results indicate the level of awareness of prevention methods to combat AIDS.

Table 13.15 shows the level of the composite indicator, 'comprehensive knowledge,' among young people by background characteristics. The results show that 17 percent of young women and 28 percent of young men have comprehensive knowledge of AIDS. Comprehensive knowledge is highest among never-married young women and men who have ever had sex (28 and 33 percent among women and men, respectively), young people who live in urban areas (28 percent among women and 40 percent among men), youth living in the Western Region (31 percent among women and 39 percent among men), those with secondary and higher education (35 percent among women and 41 percent among men), and youth in the highest wealth quintile (31 percent among women and 42 percent among men).

Table 13.15 Comprehensive knowledge about AIDS and knowledge of a source for condoms among youth
 Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source for condoms, by background characteristics, Sierra Leone 2008

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	16.4	24.3	1,198	26.1	35.2	526
15-17	16.1	21.4	628	20.5	28.9	276
18-19	16.7	27.5	570	32.3	42.1	250
20-24	18.0	29.0	1,186	29.6	52.1	403
20-22	17.8	28.6	836	29.2	49.9	283
23-24	18.3	30.0	350	30.4	57.1	120
Marital status						
Never married	24.5	37.0	1,166	28.6	42.2	838
Ever had sex	27.6	48.9	698	33.2	58.0	477
Never had sex	19.7	19.2	468	22.4	21.3	360
Ever married	10.2	16.7	1,219	18.4	45.0	91
Residence						
Urban	27.6	40.0	1,061	39.5	63.2	470
Rural	8.8	15.9	1,323	15.3	21.2	458
Region						
Eastern	15.5	27.4	403	18.4	32.0	130
Northern	12.3	19.9	913	26.7	27.1	383
Southern	11.0	23.5	487	20.5	31.6	168
Western	31.2	39.3	581	38.5	79.1	248
Education						
No education	6.5	11.8	1,099	13.5	20.3	232
Primary	12.1	21.7	479	6.5	23.4	182
Secondary or higher	34.8	49.8	806	41.4	59.2	515
Wealth quintile						
Lowest	5.8	12.8	391	10.2	12.5	128
Second	8.4	13.5	360	16.9	19.4	131
Middle	11.1	21.7	416	22.3	27.1	144
Fourth	18.7	29.0	513	24.3	43.4	188
Highest	30.5	42.2	704	42.4	68.8	338
Total 15-24	17.2	26.6	2,384	27.6	42.5	929

¹ Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one HIV-negative, faithful partner can reduce the chances of getting the AIDS virus; knowing that a healthy-looking person can have the AIDS virus; and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.
² Friends, family members, and home are not considered sources for condoms.

13.11.2 Knowledge of Condom Sources among Young Adults

Condom use plays an important role in preventing the transmission of STIs and HIV, as well as preventing unwanted pregnancies. Younger people are often at a higher risk of contracting STIs because they are more likely to be experimenting with sex before marriage. Knowledge of a source for condoms helps young adults to obtain and use them appropriately. As shown in Table 13.15, there is a large difference in knowledge of a source for condoms between men and women age 15-24; more men than women know at least one source for condoms (43 and 27 percent, respectively). Knowledge of a condom source generally increases with respondent's age and is higher among never-married young women and men who have ever had sex. For both young men and women, knowledge of a condom source is higher among urban residents, those in the Western Region, those with higher levels of education, and those in the higher wealth quintiles, compared with their counterparts.

13.11.3 Trends in Age at First Sex

Because HIV transmission in Sierra Leone occurs primarily through heterosexual intercourse, age at first intercourse marks the time at which most people become exposed to the risk of HIV.

Table 13.16 shows the percentage of young women and men who had sexual intercourse by exact age 15 and 18, by background characteristics. More women than men have had sex by age 15 and 18. Twenty-five percent of young women and 11 percent of young men had their first sex before the age of 15. About seven in ten (69 percent) young women and half (48 percent) of young men had sex by age 18.

Table 13.16 Age at first sexual intercourse among youth

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15, and percentage of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Sierra Leone 2008

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	22.3	1,198	na	na	11.4	526	na	na
15-17	22.7	628	na	na	13.1	276	na	na
18-19	22.0	570	74.6	570	9.6	250	53.3	250
20-24	26.8	1,186	66.8	1,186	10.5	403	44.8	403
20-22	26.9	836	68.0	836	12.3	283	46.6	283
23-24	26.5	350	63.9	350	6.3	120	40.4	120
Marital status								
Never married	12.9	1,166	52.2	642	10.6	838	46.2	562
Ever married	35.7	1,219	79.2	1,115	14.9	91	59.4	91
Knows condom source¹								
Yes	19.2	635	64.1	501	11.8	395	56.9	315
No	26.5	1,749	71.4	1,256	10.4	534	39.9	338
Residence								
Urban	16.5	1,061	60.8	753	10.5	470	50.7	345
Rural	31.0	1,323	75.8	1,003	11.6	458	45.1	308
Region								
Eastern	22.9	403	77.0	290	5.6	130	38.3	88
Northern	29.3	913	74.0	697	7.1	383	42.9	269
Southern	30.4	487	71.2	345	20.5	168	51.6	115
Western	13.4	581	54.9	424	13.5	248	58.2	181
Education								
No education	32.5	1,099	76.4	942	12.2	232	47.6	178
Primary	29.6	479	77.7	269	10.2	182	43.7	89
Secondary or higher	10.8	806	52.9	545	10.8	515	49.3	386
Wealth quintile								
Lowest	27.5	391	72.8	304	14.7	128	55.2	81
Second	30.6	360	76.1	271	11.9	131	34.9	88
Middle	35.1	416	77.9	312	10.6	144	48.9	103
Fourth	25.4	513	71.4	370	12.9	188	47.4	131
Highest	13.0	704	56.7	499	8.4	338	50.4	249
Total	24.6	2,384	69.3	1,756	11.0	929	48.1	653

na = Not applicable

¹ Friends, family members, and home are not considered sources for condoms.

Variations by background characteristics are greater among women than men. Ever-married young women and men are substantially more likely to initiate sexual activity by age 15 or by age 18 than those who have never married.

Urban women are less likely to have sex by age 15 (17 percent) or by age 18 (61 percent) than their rural counterparts (31 and 76 percent, respectively). The opposite is seen for young men; by age 18, urban young men are more likely to have had sex than rural men; however, there is almost no urban-rural differential by age 15. Across regions, young women and men in the Southern Region are the most likely to have had first sex by age 15 (30 and 21 percent, respectively). Young women living in the Western Region and young men in the Eastern Region are the least likely to have sex by age 15 or by age 18.

For young women, higher educational attainment is associated with a lower likelihood of initiating sex at early ages. For example, whereas 33 percent of women age 15-24 with no education

had sex by age 15, only 11 percent of women with secondary or higher education had sex by the same age. The proportion of young women initiating sex by age 15 and 18 is lowest among women in the highest wealth quintile. The differentials by level of education and wealth quintile for young men are less clear.

13.11.4 Condom Use at First Sex

Consistent condom use is advocated by HIV control programmes to reduce the risk of sexual transmission of HIV among sexually active young adults. Young adults who use condoms at first sex are more likely to sustain condom use later in life. Condom use at first sex serves as an indicator of reduced risk of exposure at the beginning of sexual activity.

Table 13.17 shows that condom use at first sex is rare in Sierra Leone. Among young adults age 15-24 who have ever had sexual intercourse, only 3 percent of young women and 7 percent of young men used a condom the first time they had sex. Never-married women and men are more likely to use a condom at first sex than those who have been married. Condom use at first sex is also higher among respondents who know where to obtain a condom; the difference in condom use at first sex by knowledge of a condom source is larger for men than women. Young adults who live in urban areas, in the Western Region, those with secondary or higher education, and young people in the highest wealth quintiles are more likely to use a condom at first sex than other groups.

Table 13.17 Condom use at first sexual intercourse among youth				
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, Sierra Leone 2008				
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	3.4	783	7.2	226
15-17	4.0	297	7.2	74
18-19	3.0	486	7.2	152
20-24	2.6	1,133	7.3	343
20-22	3.1	788	7.1	230
23-24	1.4	345	7.8	113
Marital status				
Never married	4.8	698	8.1	477
Ever married	1.8	1,219	3.0	91
Knows condom source¹				
Yes	4.9	545	12.1	318
No	2.1	1,372	1.1	251
Residence				
Urban	4.5	793	10.6	315
Rural	1.8	1,124	3.1	253
Region				
Eastern	3.4	327	0.2	71
Northern	2.4	767	3.7	206
Southern	1.6	403	4.6	100
Western	4.8	419	15.2	191
Education				
No education	0.7	1,000	0.0	152
Primary	3.5	348	3.3	72
Secondary or higher	6.5	568	11.3	344
Wealth quintile				
Lowest	1.9	332	0.0	76
Second	1.2	307	6.9	73
Middle	2.3	353	2.4	79
Fourth	3.8	424	1.4	109
Highest	4.4	500	14.2	232
Total 15-24	2.9	1,916	7.3	568

¹ Friends, family members, and home are not considered sources for condoms.

13.11.5 Abstinence and Premarital Sex

The period between age at first sex and age at marriage is often a time of sexual experimentation. Premarital sex and the interval between sexual initiation and marriage are among the factors contributing to the spread of HIV. Table 13.18 shows, for never-married women and men age 15-24, the percentage who have never had sex, the percentage who had sex in the past 12 months, and among those who had sexual intercourse in the past 12 months, the percentage who used a condom at last sexual intercourse.

Never-married young adults age 15-24 show a relatively high level of abstinence: 40 percent of women and 43 percent of men have never had sexual intercourse. Half of all never-married women and men age 15-24 had sexual intercourse in the 12 months preceding the survey. Only 9 percent of never-married women reported using a condom at last sexual intercourse in the past 12 months, compared with 20 percent of young men.

Table 13.18 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among 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, Sierra Leone 2008

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 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 past 12 months	Number of never-married men	Among men who had sexual intercourse in the past 12 months:	
				Percentage who used condom at last sexual intercourse	Number of women				Percentage who used condom at last sexual intercourse	Number of men
Age										
15-19	50.1	42.6	827	7.7	352	57.6	35.9	521	13.1	187
15-17	63.1	32.3	524	5.0	169	73.1	22.3	276	10.5	61
18-19	27.6	60.4	303	10.3	183	40.2	51.2	245	14.3	126
20-24	15.8	72.2	338	11.2	244	19.0	72.4	317	24.9	229
20-22	18.0	70.2	269	13.1	189	22.7	67.5	232	24.8	157
23-24	7.4	80.1	69	4.8	56	8.7	85.9	85	24.9	73
Knows condom source¹										
Yes	20.9	72.1	431	13.7	311	21.7	69.2	354	32.7	245
No	51.4	38.9	735	4.2	286	58.6	35.5	484	0.9	172
Residence										
Urban	36.7	56.3	731	10.9	412	35.3	57.1	439	29.8	250
Rural	45.9	42.6	435	5.4	185	51.5	41.6	399	4.1	166
Region										
Eastern	37.7	52.5	203	7.2	107	49.5	44.3	118	8.8	52
Northern	40.7	49.9	357	4.0	178	51.3	42.3	345	7.0	146
Southern	40.8	46.3	207	11.9	96	45.3	50.6	149	13.5	75
Western	40.6	54.2	399	13.2	216	25.4	63.2	226	39.6	143
Education										
No education	47.1	42.6	210	2.4	90	44.4	46.6	181	5.3	85
Primary	47.4	42.1	275	7.9	116	63.5	33.5	173	5.4	58
Secondary or higher	35.0	57.5	680	11.1	391	35.2	56.6	484	27.0	274
Wealth quintile										
Lowest	55.6	34.6	107	(2.4)	37	48.7	43.7	108	(0.0)	47
Second	43.7	44.5	120	(3.7)	53	50.7	42.6	115	(2.0)	49
Middle	42.3	46.9	150	4.7	70	51.2	40.4	127	5.5	51
Fourth	33.8	52.8	261	9.1	138	47.3	48.1	166	18.1	80
Highest	38.7	56.5	528	12.1	298	33.0	58.6	323	33.3	189
Total	40.1	51.2	1,166	9.2	597	43.0	49.7	838	19.6	416

Note: Figures in parentheses are based on 25 to 49 unweighted cases.
¹ Friends, family members, and home are not considered sources for condoms.

Condom use at last sexual intercourse increases with age, especially among men. It is also higher among respondents who know where to obtain a condom; the differential in condom use at last sex by knowledge of a condom source is also larger for men than women. It is notable that never-married youth in urban areas are more likely to have used a condom at last sexual intercourse than youth in rural areas. The percentage of young adults who used condoms at last sexual intercourse is highest in the Western Region and lowest in the Northern Region. Furthermore, youth report greater use of condoms if they have secondary or higher education or live in households in the highest wealth quintile.

13.11.6 Higher-risk Sex and Condom Use among Young Adults

In Sierra Leone, HIV is most commonly transmitted through unprotected sex with a person who is HIV positive. To prevent the transmission of HIV among young people, the use of safe sex practices is important. The safe sex methods most commonly advocated for preventing HIV transmission are the ABC methods (abstinence, being faithful to one HIV-negative partner, and condom use).

Tables 13.19.1 and 13.19.2 show the proportion of young women and men age 15-24 who had higher-risk sexual intercourse² in the 12 months preceding the survey, and among those who had higher-risk sexual intercourse, the proportion who used a condom at last higher-risk sex. The data show that higher-risk sex is more common among young men (82 percent) than among young women (43 percent). Further, condom use at last higher-risk sexual intercourse was reported by 22 percent of young men, compared with 10 percent of young women.

Table 13.19.1 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Women				
Among young women age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse, and among those who had higher-risk sexual intercourse in the past 12 months, the percentage who used a condom at last higher-risk sexual intercourse, by background characteristics, Sierra Leone 2008				
Background characteristic	Women age 15-24 who had sexual intercourse in past 12 months		Women age 15-24 who had higher-risk sexual intercourse in past 12 months	
	Percentage who had higher-risk sexual intercourse ¹	Number of women	Percentage who used a condom at last higher-risk sexual intercourse ¹	Number of women
Age				
15-19	56.1	631	7.6	354
15-17	67.7	251	5.0	169
18-19	48.4	380	10.0	184
20-24	32.7	856	12.0	280
20-22	35.2	603	13.4	212
23-24	26.7	253	7.7	67
Marital status				
Never married	96.1	597	9.5	573
Ever married	6.7	890	10.4	60
Knows condom source²				
Yes	68.1	478	13.8	326
No	30.5	1,008	5.0	307
Residence				
Urban	64.0	675	10.9	432
Rural	24.8	812	6.6	201
Region				
Eastern	41.3	265	7.8	109
Northern	34.4	544	5.4	187
Southern	35.4	313	11.6	111
Western	62.0	365	12.9	226
Education				
No education	15.1	728	6.3	110
Primary	48.8	262	7.6	128
Secondary or higher	79.7	497	11.1	396
Wealth quintile				
Lowest	16.2	241	(2.2)	39
Second	23.8	230	3.6	55
Middle	33.1	245	6.1	81
Fourth	46.6	331	9.9	154
Highest	69.1	440	12.3	304
Total 15-24	42.6	1,486	9.6	633

Note: Figures in parentheses are based on 25 to 49 unweighted cases.
¹ Sexual intercourse with a non-marital, non-cohabiting partner
² Friends, family members, and home are not considered sources for condoms.

² Sexual intercourse with a non-marital, non-cohabiting partner.

Higher-risk sexual intercourse is more prevalent among younger respondents and those who never married. This is expected because older respondents are more likely to be married. Urban women age 15-24 are more likely to have higher-risk sexual intercourse than their rural counterparts (64 and 25 percent, respectively). The same pattern is seen among men, but the difference is less pronounced (89 percent among urban men and 73 percent among rural men). By region, women and men in the Western Region are most likely to have higher-risk sexual intercourse and most likely to use a condom at last higher-risk sex. For example, 90 percent of young men in the Western Region reported that they had had higher-risk sexual intercourse in the past 12 months, and 40 percent of men reported using a condom at last higher-risk sex. Condom use at last higher-risk sex is substantially lower among young respondents in other regions. For example, 85 percent of young men in the Eastern Region had higher-risk sex in the past year, but only 11 percent of these reported use of 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

Among young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse, and among those who had higher-risk sexual intercourse in the past 12 months, the percentage who reported that a condom was used at last higher-risk sexual intercourse, by background characteristics, Sierra Leone 2008

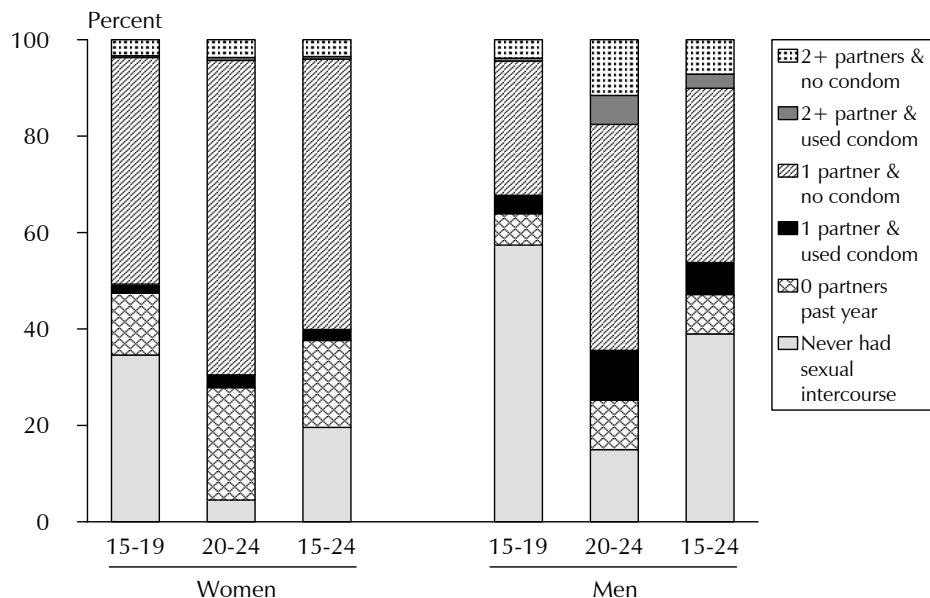
Background characteristic	Men age 15-24 who had sexual intercourse in past 12 months		Men age 15-24 who had higher-risk sexual intercourse in past 12 months	
	Percentage who had higher-risk sexual intercourse ¹	Number of men	Percentage who used a condom at last higher-risk sexual intercourse ¹	Number of men
Age				
15-19	89.0	192	15.1	171
15-17	87.0	61	12.1	53
18-19	89.9	130	16.5	117
20-24	77.2	301	27.7	233
20-22	75.5	198	26.0	150
23-24	80.4	103	30.8	83
Marital status				
Never married	90.2	416	22.4	375
Ever married	36.4	77	21.7	28
Knows condom source²				
Yes	89.9	278	35.0	250
No	71.3	216	1.9	154
Residence				
Urban	88.5	276	32.0	244
Rural	73.3	217	7.8	159
Region				
Eastern	85.0	64	10.9	55
Northern	76.7	178	10.9	137
Southern	74.6	91	18.0	68
Western	90.2	160	39.7	144
Education				
No education	71.5	125	7.3	89
Primary	77.1	66	6.1	51
Secondary or higher	87.0	302	30.7	263
Wealth quintile				
Lowest	68.1	66	(0.0)	45
Second	82.6	62	(8.8)	51
Middle	65.8	68	(11.0)	45
Fourth	84.0	97	20.9	82
Highest	90.4	199	35.4	180
Total 15-24	81.8	493	22.4	403

Note: Figures in parentheses are based on 25 to 49 unweighted cases.
¹ Sexual intercourse with a non-marital, non-cohabiting partner
² Friends, family members, and home are not considered sources for condoms.

The proportion of young people age 15-24 who reported higher-risk sexual intercourse in the 12 months preceding the survey increases with level of education and wealth quintile. However, condom use at the last higher-risk sexual intercourse is generally higher for these same groups.

Figure 13.3 presents data on the extent of risky and safe sex practices among young people in Sierra Leone by broad age groups. Twenty percent of women and 39 percent of men age 15-24 have never had sex, and an additional 18 percent of women and 8 percent of men have had sex but not in the 12 months preceding the survey. Although 2 percent of women and 7 percent of men age 15-24 say they had sex with only one partner in the past 12 months and that they used a condom the last time, the largest proportion of young people fall in the category of those who say they had only one partner in the past year but did not use a condom the last time (56 percent of women and 36 percent of men). The proportion of young people who had multiple sexual partners in the past 12 months is not large (4 percent of women and 10 percent of men); however, the proportion who did not use a condom the last time they had sex far exceeds the proportion who did.

Figure 13.3 Abstinence, Being Faithful, and Condom Use (ABC) among Young Women and Men



Sierra Leone, 2008

13.11.7 Cross-generational Sexual Partners

In many societies, young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the spread of HIV and other STIs because if a younger, HIV-negative partner has sex with an older, HIV-positive partner, the virus can be transmitted to the younger, HIV-negative cohort. To examine age differences between sexual partners, women age 15-19 who had sexual intercourse with a higher-risk partner (non-marital, non-cohabiting partner) in the 12 months preceding the survey were asked the age of their partner. If the young woman did not know the exact age of the partner, she was asked if the partner was older or younger than herself and, if older, whether the partner was 10 or more years older. The results are shown in Table 13.20.

Only 11 percent of women age 15-19 reported having higher-risk sexual intercourse with an older male partner. There are few meaningful differences by background characteristics because the small sample sizes hamper analysis. Nevertheless, it is interesting that there is little difference by urban-rural residence, and no strong pattern by wealth quintile. Age-mixing is lower among women age 18-19 (7 percent), those living in the Northern Region (6 percent), and among women with secondary or higher education (9 percent).

Table 13.20 Age-mixing in sexual relationships among women age 15-19

Percentage of women age 15-19 who had higher-risk sexual intercourse in the past 12 months with men who were 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 past 12 months with men who were 10 or more years older than themselves, Sierra Leone 2008

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 past 12 months ¹
Age		
15-17	15.3	169
18-19	7.1	184
Marital status		
Never married	10.3	340
Ever married	*	14
Knows condom source²		
Yes	9.9	160
No	12.0	193
Residence		
Urban	10.6	222
Rural	11.8	131
Region		
Eastern	14.3	71
Northern	5.5	130
Southern	16.1	62
Western	12.9	91
Education		
No education	11.3	44
Primary	14.8	99
Secondary or higher	9.2	210
Wealth quintile		
Lowest	*	24
Second	(7.9)	33
Middle	14.2	64
Fourth	11.3	91
Highest	11.4	142
Total 15-19	11.0	354
Total 15-24	12.3	634

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

¹ Sexual intercourse with a non-marital, non-cohabiting partner

² Friends, family members, and home are not considered sources for condoms.

13.11.8 Drunkenness during Sexual Intercourse among Young Adults

Engaging in sex intercourse while under the influence of alcohol can impair judgment, compromise power relations, and increase risky sexual behaviour. Respondents age 15-24 who reported having sexual intercourse in the past 12 months were asked for each partner if they or their partner drank alcohol the last time they had sex and whether they or their partner were drunk. As shown in Table 13.21, very few young people (less than 1 percent) reported being drunk during their last sexual intercourse. Only 2 percent of young women and 1 percent of young men who had sexual intercourse in the past 12 months said they or their partner were drunk. There is little variation by background characteristics.

Table 13.21 Drunkenness during sexual intercourse among youth

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, Sierra Leone 2008

Background characteristic	Women age 15-24			Men age 15-24		
	Percentage who had sexual intercourse in past 12 months when drunk	Percentage who had sexual intercourse in past 12 months when drunk or with a partner who was drunk	Number of women	Percentage who had sexual intercourse in past 12 months when drunk	Percentage who had sexual intercourse in past 12 months when drunk or with a partner who was drunk	Number of men
Age						
15-19	0.1	1.1	1,198	0.2	0.2	526
15-17	0.0	0.2	628	0.0	0.0	276
18-19	0.1	2.2	570	0.5	0.5	250
20-24	0.2	2.0	1,186	1.2	1.2	403
20-22	0.2	2.3	836	0.7	0.7	283
23-24	0.1	1.3	350	2.5	2.5	120
Marital status						
Never married	0.0	1.1	1,166	0.7	0.7	838
Ever married	0.2	2.0	1,219	0.1	0.1	91
Knows condom source¹						
Yes	0.1	2.2	635	0.7	0.7	395
No	0.1	1.3	1,749	0.6	0.6	534
Residence						
Urban	0.2	1.8	1,061	1.3	1.3	470
Rural	0.1	1.4	1,323	0.0	0.0	458
Region						
Eastern	0.5	1.8	403	0.9	0.9	130
Northern	0.0	1.3	913	0.5	0.5	383
Southern	0.1	1.8	487	1.2	1.2	168
Western	0.0	1.6	581	0.5	0.5	248
Education						
No education	0.2	1.9	1,099	0.9	0.9	232
Primary	0.0	1.2	479	0.0	0.0	182
Secondary or higher	0.0	1.3	806	0.8	0.8	515
Wealth quintile						
Lowest	0.3	1.6	391	0.0	0.0	128
Second	0.0	0.8	360	0.0	0.0	131
Middle	0.1	2.0	416	0.8	0.8	144
Fourth	0.0	2.2	513	1.1	1.1	188
Highest	0.1	1.1	704	0.9	0.9	338
Total 15-24	0.1	1.6	2,384	0.7	0.7	929

¹ Friends, family members, and home are not considered sources for condoms.

13.11.9 Voluntary HIV Counselling and Testing among Young Adults

A person's knowledge of their own HIV status can provide motivation to practice safer sexual behaviour. People who learn that they are HIV negative may decide to take precautions so as not to become HIV positive, and those who learn that they are carrying the virus may be more likely to take precautions to avoid transmitting HIV to others. Table 13.22 shows that women age 15-24 are about three times as likely as young men to have been tested for HIV in the 12 months preceding the survey and to have received the results (6 and 2 percent, respectively).

Recent HIV testing is more common among the never-married young people, those who say that they know of a place to get a condom, young people in urban areas, and those living in the Western Region. The prevalence of recent HIV testing increases with level of education and wealth quintile.

Table 13.22 Recent HIV tests among youth

Among young women and young men age 15-24 who had sexual intercourse in the 12 months preceding the survey, the percentage who were tested for HIV in the past 12 months and received the results, by background characteristics, Sierra Leone 2008

Background characteristic	Women age 15-24 who had sexual intercourse in past 12 months		Men age 15-24 who had sexual intercourse in past 12 months	
	Percentage who were tested for HIV in past 12 months and received results	Number of women	Percentage who were tested for HIV in past 12 months and received results	Number of men
Age				
15-19	4.4	631	0.7	192
15-17	3.5	251	0.0	61
18-19	5.0	380	1.0	130
20-24	7.0	856	2.9	301
20-22	6.6	603	3.1	198
23-24	7.7	253	2.6	103
Marital status				
Never married	7.6	597	2.3	416
Ever married	4.7	890	0.7	77
Knows condom source¹				
Yes	11.4	478	3.2	278
No	3.3	1,008	0.5	216
Residence				
Urban	9.9	675	3.4	276
Rural	2.5	812	0.3	217
Region				
Eastern	2.9	265	1.7	64
Northern	2.6	544	0.0	178
Southern	5.7	313	1.4	91
Western	13.1	365	4.9	160
Education				
No education	2.1	728	0.0	125
Primary	5.1	262	0.0	66
Secondary or higher	11.8	497	3.4	302
Wealth quintile				
Lowest	0.7	241	0.0	66
Second	5.4	230	1.1	62
Middle	4.7	245	0.0	68
Fourth	4.1	331	0.0	97
Highest	11.0	440	4.8	199
Total 15-24	5.9	1,486	2.1	493

¹ Friends, family members, and home are not considered sources for condoms.

The first case of HIV/AIDS in Sierra Leone was diagnosed in 1987. Since then, nearly 6,000 individuals have tested positive for HIV, more than one-third developed AIDS, and over 500 have died (UNGASS, 2007). Consequently, the Government has made a strong political commitment to combat the HIV/AIDS epidemic. These efforts led to the establishment of the National HIV/AIDS Council (NAC) in 2002, with the Head of State as the Chairman. The council is comprised of public and private sector representatives in roughly equal numbers, as well as people living with HIV/AIDS (PLWHA). In 2002, the National AIDS Secretariat (NAS) was established by an act of Parliament within the Office of the President. The NAS mandate is to coordinate the multi-sectoral effort to reduce the spread of HIV and to mitigate the impact of the disease both on persons who are HIV positive and on those around them who are affected. Furthermore, a National HIV/AIDS Policy was adopted by the Cabinet and endorsed by the President in 2002. In 2005, a strategic plan of action for implementation of the National Policy was developed with support from the UN Thematic Group on HIV/AIDS.

In Sierra Leone, national HIV prevalence estimates have been derived primarily from sentinel surveillance of pregnant women and from two national sero-prevalence surveys conducted in 2002 and 2005. In April 2002, the first national sero-prevalence survey conducted jointly by the Centres for Disease Control and Prevention (CDC) in Atlanta, Georgia (USA) and Statistics Sierra Leone (SSL), reported a national HIV prevalence of 1 percent, 2 percent in Freetown and around 1 percent outside of Freetown. Subsequent to the CDC-funded survey, in April 2004 the first antenatal care sentinel surveillance based on eight sentinel sites was conducted by the Health Sector Response Group (ARG) within the National AIDS Secretariat (NAS). This survey reported a national HIV prevalence rate among pregnant women of 3 percent; the level among pregnant women in the capital, Freetown, was 4 percent. In 2005, a second national sero-prevalence survey was commissioned by the National AIDS Secretariat and conducted jointly by the Nimba Research Institute in Ghana and Statistics Sierra Leone. This survey reported a national HIV prevalence rate of about 2 percent, with similar rates of 2 percent for both women and men age 15-49. The second ANC sentinel surveillance, which was conducted in 2006, reported a national prevalence of 4 percent among pregnant women attending ANC services at 13 sentinel sites.

While the ANC sentinel surveillance data are useful for monitoring trends in the epidemic, there are limitations to estimating HIV prevalence in the general adult population from data derived exclusively from pregnant women attending these selected antenatal clinics. The ANC data do not capture any information on HIV prevalence in men, in non-pregnant women, nor in women who do not attend a clinic for pregnancy care. Pregnant women are more at risk for contracting HIV than those who may be avoiding both HIV and pregnancy through the use of condoms, or women who are less sexually active, and are, therefore, less likely to become pregnant or to expose themselves to HIV. In addition, there are biases in surveillance of pregnant women because HIV reduces fertility, and a woman's knowledge of her HIV status may influence fertility choices.

To observe the overall trend in the HIV/AIDS prevalence rates in Sierra Leone since the 2002 and 2005 national sero-prevalence surveys were carried out, and to obtain more representative measures of HIV prevalence than were available from the 2006 ANC sentinel surveillance, an HIV testing component was included in the 2008 Sierra Leone Demographic and Health Survey (SLDHS). This represents the first time that HIV testing has been conducted within a nationally representative sample of the Sierra Leone population. Additionally, this is the first time that HIV results have been (anonymously) linked with broader behavioural, social, and demographic factors. Understanding the distribution of HIV in the population and analyzing the social, biological and behavioural factors

associated with HIV infection provide new insights and knowledge about the HIV epidemic in Sierra Leone that may lead to more precise targeting of messages and interventions.

The HIV prevalence rates obtained by the SLDHS are comparable with the HIV rates from other countries that have conducted DHS surveys using the same standardized methodology. The 2008 SLDHS data can be used as baseline data to monitor survey-based HIV prevalence dynamics because HIV testing can be repeated in future DHS surveys in Sierra Leone, using the same standardized methodology and questionnaires that (anonymously) link HIV results with key behavioural and socio-economic factors.

This chapter presents information on SLDHS coverage of HIV testing among women age 15-49 and men age 15-59, the prevalence of HIV, and factors associated with the transmission of HIV in the population. The chapter first presents information on the coverage of testing by gender, urban-rural residence, region, socio-demographic factors, and behavioural indicators. Then HIV prevalence rates are presented by socio-demographic, behavioural, and other risk factors.

14.1 COVERAGE OF HIV TESTING

14.1.1 Coverage by Sex, Residence, and Region

In the 2008 SLDHS, all women age 15-49 and men age 15-59 (who were eligible for the interview in households selected for the male survey, i.e., every second household selected for the SLDHS) were asked if they would consent to give a few drops of blood from a finger prick for HIV testing. Table 14.1 presents coverage rates for HIV testing and the reasons given for not being tested, by gender, urban-rural residence, and region. Overall, HIV tests were conducted on 88 percent of the 3,954 eligible women age 15-49 and 85 percent of the 3,541 eligible men age 15-59. For both sexes combined, coverage was 86 percent, with rural residents more likely to be tested than their urban counterparts (89 and 83 percent, respectively). Table 14.1 also shows that, contrary to instructions given to field staff, a very small number of respondents were tested for HIV despite not being interviewed (less than 2 percent).

Refusal to give blood is the most common reason for non-response on the HIV testing component, for both women and men; 5 percent of women and 6 percent of men were interviewed but refused to provide a blood sample. Refusal rates are higher in urban than rural areas, especially for men. For both sexes, the Western and Northern regions had the highest refusal rates (7 percent each), while the Southern Region had the lowest (1 percent).

There are strong differences in coverage rates for HIV testing by region. Among both sexes, the Southern Region had the highest rate of HIV testing (95 percent), followed by the Eastern Region (89 percent). The Western Region (80 percent) and the Northern Region (82 percent) had the lowest testing rates. In every region, HIV testing coverage was higher for women than men.

Table 14.1 Coverage of HIV testing by residence and region

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to residence and region (unweighted), Sierra Leone 2008

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 interviewed	Inter-viewed	Not interviewed	Inter-viewed	Not interviewed	Inter-viewed	Not interviewed		
WOMEN 15-49										
Residence										
Urban	85.8	1.8	5.7	2.0	0.2	0.6	2.2	1.7	100.0	1,663
Rural	89.0	1.9	4.1	1.2	0.2	0.7	1.2	1.7	100.0	2,291
Region										
Eastern	89.7	1.1	4.8	0.7	0.1	0.1	1.1	2.4	100.0	902
Northern	82.9	3.3	6.4	3.0	0.2	1.1	1.2	1.8	100.0	1,228
Southern	95.5	0.9	1.1	0.0	0.1	0.1	1.1	1.0	100.0	964
Western	83.5	1.6	6.3	2.2	0.2	1.3	3.3	1.6	100.0	860
Total	87.7	1.8	4.7	1.6	0.2	0.7	1.6	1.7	100.0	3,954
MEN 15-59										
Residence										
Urban	80.0	2.4	7.5	3.1	0.1	1.2	2.4	3.3	100.0	1,559
Rural	88.9	1.2	3.8	1.1	0.2	0.8	1.8	2.2	100.0	1,982
Region										
Eastern	88.1	0.8	5.3	0.8	0.0	0.7	2.1	2.2	100.0	857
Northern	80.8	2.9	7.0	3.6	0.1	0.8	1.3	3.6	100.0	1,014
Southern	94.1	0.8	1.6	0.5	0.1	0.2	1.6	1.1	100.0	880
Western	76.8	2.3	8.0	2.9	0.4	2.4	3.5	3.7	100.0	790
Total	85.0	1.7	5.5	2.0	0.1	1.0	2.1	2.7	100.0	3,541
TOTAL (WOMEN 15-49 and MEN 15-59)										
Residence										
Urban	83.0	2.1	6.5	2.5	0.2	0.9	2.3	2.5	100.0	3,222
Rural	89.0	1.5	4.0	1.2	0.2	0.8	1.5	2.0	100.0	4,273
Region										
Eastern	88.9	1.0	5.0	0.7	0.1	0.4	1.6	2.3	100.0	1,759
Northern	81.9	3.1	6.7	3.3	0.2	1.0	1.2	2.6	100.0	2,242
Southern	94.8	0.9	1.4	0.2	0.1	0.2	1.4	1.1	100.0	1,844
Western	80.3	1.9	7.1	2.5	0.3	1.8	3.4	2.6	100.0	1,650
Total	86.4	1.8	5.1	1.8	0.2	0.8	1.8	2.2	100.0	7,495

¹ Includes all Dried Blood Spot (DBS) samples 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.

14.1.2 Coverage by Socio-demographic Characteristics

Table 14.2 shows the coverage rates for HIV testing among women age 15-49 and men age 15-59 by interview status and reason for not being tested, according to background characteristics. Coverage rates for women are generally stable across age groups (86 to 90 percent). For men, the highest coverage for HIV testing is in age group 30-39 (89 percent), while the lowest rate is in age group 20-24 (80 percent).

Table 14.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Sierra Leone 2008

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 interviewed	Inter-viewed	Not interviewed	Inter-viewed	Not interviewed	Inter-viewed	Not interviewed		
WOMEN 15-49										
Age										
15-19	85.8	2.6	5.4	1.7	0.5	0.3	2.1	1.7	100.0	664
20-24	86.7	1.4	5.2	1.7	0.3	1.2	1.4	2.1	100.0	655
25-29	87.9	1.8	4.5	1.4	0.1	0.6	1.7	2.0	100.0	845
30-34	88.5	1.1	3.3	1.6	0.2	0.9	2.9	1.5	100.0	549
35-39	89.5	2.8	3.8	1.0	0.0	0.7	1.0	1.2	100.0	601
40-44	87.8	1.7	6.1	1.4	0.0	0.0	0.6	2.5	100.0	362
45-49	87.4	1.1	5.8	2.9	0.0	1.1	1.1	0.7	100.0	278
Education										
No education	88.3	1.9	4.6	1.5	0.2	0.6	1.4	1.5	100.0	2,529
Primary	86.8	2.5	5.0	1.0	0.2	0.8	1.3	2.5	100.0	522
Secondary or higher	86.4	1.4	5.0	2.1	0.1	0.8	2.4	1.8	100.0	903
Wealth quintile										
Lowest	91.1	1.6	3.3	1.0	0.0	0.1	1.4	1.4	100.0	695
Second	90.0	1.5	3.4	1.0	0.1	0.9	0.7	2.3	100.0	681
Middle	87.5	2.2	5.3	1.8	0.4	0.6	0.8	1.4	100.0	719
Fourth	87.4	2.0	5.3	1.4	0.2	0.8	1.3	1.5	100.0	860
Highest	84.0	1.9	5.7	2.3	0.1	0.9	3.2	1.9	100.0	999
Total	87.7	1.8	4.7	1.6	0.2	0.7	1.6	1.7	100.0	3,954
MEN 15-59										
Age										
15-19	83.3	2.2	5.1	2.2	0.0	0.8	2.7	3.8	100.0	603
20-24	80.4	1.7	6.8	2.4	0.0	2.2	3.1	3.5	100.0	459
25-29	83.0	2.9	5.6	2.3	0.6	1.0	2.3	2.3	100.0	481
30-34	89.1	0.3	5.1	2.3	0.3	0.3	1.5	1.3	100.0	396
35-39	89.2	1.3	3.3	1.8	0.2	0.9	1.3	2.0	100.0	545
40-44	86.2	1.4	6.5	1.7	0.0	0.6	2.0	1.7	100.0	356
45-49	85.8	1.7	5.7	1.7	0.0	1.4	1.7	2.0	100.0	353
50-54	81.3	2.0	7.6	1.5	0.0	0.0	2.5	5.1	100.0	198
55-59	86.0	2.0	5.3	0.7	0.0	1.3	0.7	4.0	100.0	150
Education										
No education	87.7	1.2	4.7	1.5	0.0	0.6	1.8	2.5	100.0	1,629
Primary	87.1	1.4	4.5	1.2	0.2	1.0	1.4	3.3	100.0	511
Secondary or higher	81.0	2.4	6.7	2.9	0.3	1.4	2.6	2.7	100.0	1,401
Wealth quintile										
Lowest	91.6	1.1	2.0	0.9	0.0	0.5	2.0	1.9	100.0	644
Second	89.0	0.9	4.4	0.9	0.4	0.9	1.1	2.5	100.0	562
Middle	86.7	1.2	5.7	1.7	0.0	0.7	1.7	2.4	100.0	592
Fourth	84.0	2.4	5.4	2.1	0.1	0.8	2.1	3.0	100.0	757
Highest	78.1	2.4	8.1	3.3	0.2	1.7	2.8	3.2	100.0	986
Total	85.0	1.7	5.5	2.0	0.1	1.0	2.1	2.7	100.0	3,541

¹ Includes all Dried Blood Spot (DBS) samples 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.

HIV testing coverage among women is fairly similar across education levels, while men with secondary or higher education were least likely to be tested and most likely to refuse testing. Similarly, those in the highest (richest) wealth quintile were the least likely to be tested and had the highest levels of refusal (6 percent of women and 8 percent of men).

Among both women and men and across all sub-groups, the main reason for not being tested for HIV is refusal to provide a blood sample. Table 14.2 shows the coverage rates for HIV testing among women age 15-49 and men age 15-59 by interview status and reason for not being tested, according to background characteristics.

Appendix Tables C.8-C.11 show coverage rates for HIV testing among women and men who were interviewed by socio-demographic characteristics. The proportion of respondents who were tested is generally uniform across groups, varying little by marital status, frequency of travel away from home, and various sexual behavioural indicators. This provides assurance that the HIV prevalence rates are not likely to be biased by disproportionate non-response.

14.2 HIV PREVALENCE

14.2.1 HIV Prevalence by Age

Results from the 2008 SLDHS indicate that 1.5 percent of Sierra Leonean adults age 15-49 have HIV (Table 14.3). HIV prevalence in women age 15-49 is 1.7 percent, while for men age 15-49, it is 1.2 percent. Prevalence peaks among women and men in age group 30-34 (2.4 percent for women and 1.8 percent for men). The higher level of HIV among women than men is common in most population-based estimates of HIV prevalence. There are no consistent patterns of HIV prevalence by age among either women or men; rather the levels fluctuate by age group.

Age	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
15-19	1.3	529	0.0	487	0.7	1,016
20-24	1.5	559	1.3	365	1.4	924
25-29	2.2	772	1.5	407	2.0	1,179
30-34	2.4	471	1.8	352	2.1	823
35-39	1.2	568	1.4	499	1.3	1,067
40-44	2.1	308	0.9	309	1.5	617
45-49	1.0	241	2.1	306	1.6	547
Total 15-49	1.7	3,448	1.2	2,726	1.5	6,174
50-59	na	na	0.6	301	na	na
Total 15-59	na	na	1.2	3,027	na	na

na = Not applicable

14.2.2 HIV Prevalence by Socio-economic Characteristics

Table 14.4 shows data on HIV prevalence by various socio-economic characteristics. Differences among ethnic groups are small. For example, HIV prevalence among the Temne and Mende groups is about 1 percent, compared with 2.1 percent among respondents in other ethnic groups combined. Differences by religion and employment status are also small. Urban residents have a slightly higher risk of contracting HIV (2.5 percent) than rural residents (1 percent). The HIV epidemic exhibits some degree of regional heterogeneity, with the prevalence rate ranging from less than 1 percent in the Southern Region to 2.9 percent in the Western Region where the capital, Freetown, is located. A similar pattern is observed for both women and men. Table 14.4 shows that the proportion of respondents who are HIV positive does not vary much by education, although it is slightly higher among those with secondary or higher education. Finally, data in Table 14.4 show that HIV prevalence is lowest among respondents in the lowest (poorest) wealth quintile (less than 1 percent) and highest among those in the highest (richest) wealth quintile (2.3 percent). This relationship is true for both women and men, but it appears to be somewhat more pronounced for men.

Table 14.4 HIV prevalence by socio-economic characteristics						
Percentage HIV positive among women and men age 15-49 who were tested, by socio-economic characteristics, Sierra Leone 2008						
Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Residence						
Urban	2.7	1,205	2.2	1,040	2.5	2,245
Rural	1.2	2,243	0.6	1,686	1.0	3,929
Region						
Eastern	1.6	601	1.1	510	1.4	1,111
Northern	1.4	1,433	0.9	1,055	1.2	2,488
Southern	1.1	733	0.5	569	0.8	1,302
Western	3.1	682	2.6	592	2.9	1,274
Education						
No education	1.6	2,341	1.1	1,316	1.4	3,657
Primary	2.0	423	0.8	386	1.4	810
Secondary or higher	2.1	684	1.5	1,023	1.8	1,707
Employment (past 12 months)						
Not employed	1.8	759	1.2	403	1.6	1,162
Employed	1.7	2,673	1.2	2,321	1.5	4,994
Ethnicity						
Temne	1.6	1,189	0.9	995	1.3	2,184
Mende	1.3	1,087	0.9	834	1.1	1,921
Other	2.3	1,173	1.9	896	2.1	2,069
Religion						
Christian	1.8	783	1.0	586	1.5	1,369
Muslim	1.7	2,625	1.3	2,128	1.5	4,753
Other	(2.1)	41	*	11	(2.7)	52
Wealth quintile						
Lowest	0.8	627	0.2	522	0.6	1,149
Second	1.9	679	0.5	483	1.3	1,162
Middle	1.0	674	1.0	487	1.0	1,161
Fourth	2.3	732	1.9	556	2.1	1,288
Highest	2.4	736	2.1	678	2.3	1,414
Total 15-49	1.7	3,448	1.2	2,726	1.5	6,174
50-59	na	na	0.6	301	na	na
Total 15-59	na	na	1.2	3,027	na	na

Note: Total includes 16 women and 2 men with information missing on employment. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
na = Not applicable

14.2.3 HIV Prevalence by Demographic Characteristics

Marital status is related to HIV prevalence, and the pattern is similar for both women and men (Table 14.5). As expected, never-married respondents who have never had sex have the lowest prevalence of HIV (0.2 percent). Respondents who are widowed have higher rates of HIV (5.0 percent) than those in other marital categories. A few women who reported that they had never been in a union and had never had sex are HIV positive, suggesting either reporting errors on sexual behaviour or non-sexual transmission of HIV.

Demographic characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	2.2	587	1.0	993	1.5	1,580
Ever had sexual intercourse	2.9	406	1.6	642	2.1	1,048
Never had sexual intercourse	0.7	181	0.0	350	0.2	532
Married/living together	1.4	2,644	1.3	1,650	1.4	4,293
Divorced or separated	2.7	121	3.4	72	3.0	193
Widowed	5.6	97	*	11	5.0	108
Type of union						
In polygynous union	0.9	996	1.1	292	1.0	1,288
Not in polygynous union	1.8	1,594	1.3	1,358	1.6	2,952
Not currently in union	2.7	805	1.2	1,076	1.8	1,881
Don't know/missing	0.0	53	na	0	0.0	53
Times slept away from home in past 12 months						
None	1.9	1,881	1.2	1,152	1.6	3,032
1-2	2.0	874	1.7	519	1.8	1,393
3-4	1.2	363	0.2	434	0.6	797
5+	0.9	299	1.7	601	1.4	900
Missing	(0.0)	33	*	19	(0.0)	52
Time away in past 12 months						
Away for more than 1 month	1.4	515	1.7	520	1.5	1,034
Away only for less than 1 month	1.7	977	1.0	994	1.4	1,970
Not away	1.9	1,886	1.2	1,152	1.6	3,038
Missing	1.3	71	0.8	61	1.0	131
Currently pregnant						
Pregnant	0.8	288	na	na	na	na
Not pregnant or not sure	1.8	3,160	na	na	na	na
ANC for last birth in the past 3 years						
ANC provided by the public sector	1.3	1,282	na	na	na	na
ANC provided by other than the public sector	2.9	208	na	na	na	na
No ANC/no birth in last 3 years	1.9	1,936	na	na	na	na
Male circumcision						
Circumcised	na	na	1.2	2,616	na	na
Not circumcised	na	na	2.4	57	na	na
Don't know/missing	na	na	(2.3)	53	na	na
Total 15-49	1.7	3,448	1.2	2,726	1.5	6,174
50-59	na	na	0.6	301	na	na
Total 15-59	na	na	1.2	3,027	na	na

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
na = Not applicable

By type of union, HIV prevalence is slightly lower among respondents who are in a polygynous union (1.0 percent), than those who are not currently in union (1.8 percent); however, the difference is small (0.8 percent).

People who travel away from home—particularly if they stay away for long periods—are assumed to be at greater risk of contracting HIV because they engage in higher-risk sexual behaviour. However, no such pattern was observed in the data on women and men in Sierra Leone. For example, the data show that respondents who slept away from home one or two times in the 12 months before the survey, or who never slept away from home (1.8 and 1.6 percent, respectively) have higher HIV prevalence than those who slept away from home three or four times during the same period of time (0.6 percent). Similarly, HIV prevalence does not vary in any meaningful way by duration of time that

women and men spent away from home. However, the survey results on these issues are mixed, possibly because of the overall low prevalence rates.

HIV prevalence among pregnant women in the SLDHS is 0.8 percent. This figure provides a useful benchmark for comparison with HIV rates of pregnant women tested during sentinel surveillance. HIV prevalence among women who were not pregnant at the time of the 2008 SLDHS interview is 1.8 percent. Differences in HIV prevalence by type of antenatal care for the most recent birth are not large. Nevertheless, the prevalence rate for women who received ANC from a public sector provider prior to a live birth in the three years preceding the survey is lower (1.3 percent) than that for women who did not receive any ANC (1.9 percent) and women who received ANC somewhere other than the private sector (2.9 percent).

Several recent studies have shown evidence of a protective effect of circumcision among men. The 2008 SLDHS data show that men who are circumcised (1.2 percent) are slightly less likely to have HIV than those who are not circumcised (2.4 percent). However, because of the small number of men in the survey who were not circumcised, the results should be viewed with caution.

14.2.4 HIV Prevalence by Sexual Behaviour Indicators

Table 14.6 examines the prevalence of HIV by sexual behaviour indicators among respondents who have ever had sexual intercourse. It is important to note that responses about risky sexual behaviours may be subject to reporting bias. Also, sexual behaviour in the 12 months preceding the survey may not adequately reflect lifetime sexual risk.

Generally, the patterns of HIV prevalence are similar for women and men, although the differences are larger among women. Women age 15-49 who had first sexual intercourse at age 16-17 have the highest HIV prevalence (3.2 percent), compared with other women. The same pattern is observed for men age 15-49.

Women age 15-49 years who had higher-risk sexual intercourse (sex with a non-marital, non-cohabiting partner) are slightly more likely to have HIV than those who are sexually active but did not have a higher-risk partner (3.1 and 1 percent, respectively). Among men age 15-49, those reporting a higher-risk partner in the past year also have a slightly higher HIV prevalence (1.9 percent) than sexually active men who did not have a higher-risk partner (1.2 percent) or those who did not have any recent sexual intercourse (0.6 percent). Overall, there is a slight tendency for HIV prevalence to be higher among those who had higher-risk sexual intercourse in the past 12 months (2.3 percent) than among those who either did not have sex in the past 12 months (1.6 percent) or who had sexual intercourse, but not higher-risk sexual intercourse (1.4 percent).

HIV prevalence increases with the number of higher-risk sexual partners. For example, HIV prevalence rises from 1.6 percent among women and 1 percent among men who did not have any higher-risk partners in the past 12 months, to 6.2 percent among women and 2.9 percent among men who had two higher-risk sexual partners in the past 12 months. Overall, HIV prevalence rises from 1.4 percent among respondents who had no higher-risk sexual partners in the past 12 months to 3.6 percent among those with two higher-risk sexual partners in that period.

Table 14.6 HIV prevalence by sexual behaviour

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behaviour characteristics, Sierra Leone 2008

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	1.5	1,652	1.2	554	1.4	2,206
16-17	3.2	639	1.9	516	2.6	1,155
18-19	1.5	396	1.6	574	1.5	970
20+	1.7	195	1.1	683	1.3	878
Missing	1.2	360	(0.0)	36	1.0	396
Higher-risk intercourse in past 12 months¹						
Had higher-risk intercourse	3.1	484	1.9	899	2.3	1,383
Had sexual intercourse, not higher risk	1.4	1,921	1.2	1,148	1.4	3,069
No sexual intercourse in past 12 months	1.9	837	0.6	315	1.6	1,153
Number of sexual partners in past 12 months						
0	1.6	746	0.0	191	1.3	937
1	1.7	2,287	1.4	1,608	1.6	3,895
2	3.2	114	2.3	380	2.5	493
3+	*	4	1.2	48	1.1	52
Missing	4.3	91	1.4	136	2.6	227
Number of higher-risk partners in past 12 months²						
0	1.6	2,758	1.1	1,464	1.4	4,222
1	2.8	442	1.8	728	2.2	1,170
2	6.2	39	2.9	147	3.6	186
3+	*	2	(0.0)	25	(0.0)	27
Condom use						
Ever used a condom	2.4	179	2.5	653	2.5	832
Never used a condom	1.8	3,043	1.0	1,605	1.5	4,648
Missing	*	20	0.4	105	0.4	125
Condom use at last sexual intercourse in past 12 months						
Used condom	0.0	50	1.8	190	1.4	239
Did not use condom	1.8	2,329	1.5	1,834	1.7	4,163
No sexual intercourse in past 12 months	1.9	837	0.6	315	1.6	1,153
Missing	(4.4)	26	*	24	(2.3)	50
Condom use at last higher-risk intercourse in past 12 months						
Used condom	(0.0)	31	1.7	193	1.5	224
Did not use condom	3.3	453	1.9	706	2.5	1,159
No higher-risk intercourse/ no intercourse past 12 months	1.6	2,758	1.1	1,464	1.4	4,222
Number of lifetime partners						
1	1.2	1,212	0.0	218	1.0	1,430
2	2.3	843	0.4	217	1.9	1,060
3-4	2.5	741	2.2	373	2.4	1,114
5-9	1.7	193	1.5	332	1.6	524
10+	*	19	0.5	308	0.9	327
Missing	0.8	235	2.0	915	1.7	1,149
Paid for sexual intercourse in past 12 months³						
Yes	na	na	0.0	55	na	na
Used condom	na	na	*	15	na	na
Did not use condom	na	na	(0.0)	40	na	na
No sexual intercourse in past 12 months	na	na	1.4	2,308	na	na
Total 15-49	1.8	3,242	1.4	2,363	1.6	5,605
50-59	na	na	0.6	293	na	na
Total 15-59	na	na	1.3	2,656	na	na

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

na = Not applicable

¹ Sexual intercourse with a non-marital, non-cohabiting partner

² At least one non-marital, non-cohabiting partner among the last three partners in the past 12 months

³ Includes men who reported having a prostitute for at least one of their last three sexual partners in the past 12 months

Condoms, when used properly, are an effective way of preventing the transmission of HIV and other STIs. Although this would suggest that HIV rates should be lower among condom users, there are a number of factors that may influence the direction of the relationship. For example, condom use rates may be higher among individuals who are HIV positive because they are seeking to protect a partner who is HIV negative. Also, reported condom use cannot be assumed to be ‘correct condom use.’ Thus, it is not surprising that the association between condom use and HIV prevalence is not uniform. Overall, HIV prevalence is highest among respondents who did not use a condom during higher-risk sexual intercourse (2.5 percent) than among those who did use a condom (1.5 percent) or those who did not have any higher-risk sex during the past year (1.4 percent). This pattern holds true for both women and men.

Looking at the relationship between HIV infection and the number of lifetime partners, HIV prevalence increases with the number of lifetime sexual partners that a person has had and it reaches a peak among those who have had three or four partners, after which it drops as the number of partners increases.

14.3 HIV PREVALENCE BY OTHER CHARACTERISTICS RELATED TO HIV RISK

Some sexually transmitted infections (STIs) have been shown to facilitate transmission of HIV. Consequently, it would be expected that women and men with a history of STIs or STI symptoms would have higher HIV prevalence rates than those with none. As shown in Table 14.7, there is no difference in the prevalence of HIV among women with STIs and those without; however, HIV prevalence is higher among those who did not know whether they had an STI (2.4 percent). Men who reported having an STI or STI symptoms were slightly less likely to be HIV positive than those who did not report having an STI, although the difference is very small (1.1 and 1.5 percent, respectively).

Women and men who have ever been tested for HIV are more likely to be HIV positive than those who have never been tested. Among women and men who have ever had sex, the level of HIV is 3.0 percent among those who have ever been tested, compared with 1.6 percent for women and 1.2 percent for men who have never been tested.

Table 14.7 HIV prevalence by selected characteristics
Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by whether they had an STI in the past 12 months and by prior testing for HIV, Sierra Leone 2008

Characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	1.6	639	1.1	266	1.5	906
No STI, no symptoms	1.8	2,387	1.5	1,924	1.7	4,312
Don't know/missing	2.4	215	0.3	172	1.5	387
Prior HIV testing						
Ever tested	3.0	429	3.0	210	3.0	640
Received results	3.8	316	3.6	176	3.7	492
Did not receive results	0.7	113	(0.0)	34	0.5	147
Never tested	1.6	2,741	1.2	1,811	1.4	4,552
Missing	3.3	72	1.6	342	1.9	414
Total 15-49	1.8	3,242	1.4	2,363	1.6	5,605

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

Women and men who are HIV positive are slightly more likely to have been tested in the past for HIV and to have been given the results, than those who are HIV negative (Table 14.8). Among women who are HIV positive, 20 percent said that they had been tested for HIV at some time and had received the results of their last test; among women who are HIV negative, only 9 percent reported being tested previously and received the result. However, 75 percent of HIV-positive women said

they had never been tested. For men, there is a similar pattern; 19 percent of those who are HIV positive have previously been tested and know the results of their last test, compared with 6 percent of those who are HIV negative.

Nevertheless, the survey results imply that the vast majority of people who are HIV positive (75 percent of women and 64 percent of men) are not aware of their HIV status, mainly because they were never tested and are thus less likely to take precautions to prevent transmission.

Table 14.8 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 by HIV testing status prior to the survey, according to whether HIV positive or negative, Sierra Leone 2008

HIV testing prior to the survey	Women		Men		Total	
	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested						
Received result of last test	20.2	9.0	(19.1)	6.4	19.8	7.8
Did not receive result of last test	1.3	3.5	(0.0)	1.3	0.8	2.6
Not previously tested	74.6	85.5	(64.1)	75.4	70.9	81.0
Missing	3.9	2.0	(16.8)	16.8	8.5	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	60	3,389	33	2,692	93	6,081

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

14.4 HIV PREVALENCE AMONG YOUTH

HIV prevention programmes often target youth because they are generally more likely than older people to be experimenting with sex. Infection rates among youth provide some insight into the incidence of new cases, because young people living with HIV are more likely to have contracted the virus, compared with adults. As shown in Table 14.9, 1.4 percent of women and 0.5 percent of men age 15-24 are HIV positive. Among young women, HIV prevalence is highest for the 23-24 age group, while among young men it is highest for the 20-22 age group. HIV rates are somewhat higher among the never-married youth who have ever had sex than among other sub-groups.

HIV prevalence is slightly higher among young pregnant women than among young non-pregnant women. Although low, HIV prevalence among young people in urban areas is twice that observed among young people in rural areas (1.6 percent, compared with 0.6 percent). Young women living in the Eastern Region (2.6 percent) and young women and men in the Western Region (2.1 and 1.6 percent, respectively) are more likely to have HIV than young people in other regions.

The data show no clear patterns for HIV prevalence by level of education or wealth quintile. For example, among young women, HIV prevalence is highest for those who have no education (1.8 percent), while among young men it is highest for those with secondary or higher education (1 percent). Similarly, among young women, HIV prevalence is highest for those in the fourth wealth quintile (2.6 percent), while for young men it is highest for those in the highest wealth quintile (1.2 percent). Few conclusions can be drawn from these data because the HIV prevalence levels are low and the differentials are small.

Background characteristic	Women 15-24		Men 15-24		Total 15-24	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	1.3	529	0.0	487	0.7	1,016
15-17	1.0	270	0.0	248	0.5	518
18-19	1.6	259	0.0	239	0.8	498
20-24	1.5	559	1.3	365	1.4	924
20-22	1.2	379	1.5	259	1.3	638
23-24	2.3	180	0.8	106	1.8	286
Marital status						
Never married	1.6	487	0.6	771	1.0	1,258
Ever had sex	2.1	310	1.1	437	1.5	748
Never had sex	0.7	177	0.0	334	0.2	511
Married/living together	0.9	575	0.0	75	0.8	650
Divorced/separated/widowed	*	26	*	6	(8.5)	32
Currently pregnant						
Pregnant	1.7	131	na	na	na	na
Not pregnant or not sure	1.4	958	na	na	na	na
Residence						
Urban	2.0	464	1.1	441	1.6	905
Rural	1.0	624	0.0	411	0.6	1,035
Region						
Eastern	2.6	175	0.0	118	1.6	292
Northern	1.2	424	0.0	345	0.7	769
Southern	0.1	232	0.5	156	0.3	388
Western	2.1	257	1.6	234	1.9	490
Education						
No education	1.8	522	0.0	202	1.3	723
Primary	0.8	199	0.0	170	0.4	369
Secondary or higher	1.2	367	1.0	481	1.1	848
Wealth quintile						
Lowest	0.8	171	0.0	113	0.5	284
Second	1.6	176	0.0	121	0.9	298
Middle	0.3	196	0.0	129	0.2	324
Fourth	2.6	243	0.5	171	1.7	414
Highest	1.4	302	1.2	318	1.3	620
Total 15-24	1.4	1,088	0.5	852	1.0	1,940

Table 14.10 presents HIV prevalence rates by sexual behaviour indicators for young people age 15-24 who have ever had sexual intercourse. Young women whose first sex was with a man ten or more years older have only marginally higher HIV prevalence, compared with those whose first partner was less than ten years older. Among both young women and young men, the HIV infection rate is higher for those who had higher-risk sexual intercourse than for those who did not. There is a clear HIV prevalence increase among youth as the number of sexual partners in the past 12 months increases, from 0.3 percent among youth with no recent sexual partners to 4 percent among those who had two or more sexual partners. Regarding HIV prevalence and the number of higher-risk sexual partners in the past 12 months, prevalence is higher among those with two or more higher-risk partners than among those with one or no higher-risk partners.

Table 14.10 HIV prevalence among young people by sexual behaviour
 Percentage HIV positive among women and men age 15-24 who ever had sex and were tested for HIV, by sexual behaviour, Sierra Leone 2008

Sexual behaviour characteristic	Women 15-24		Men 15-24		Total 15-24	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Relative age of first sexual partner						
10+ years older	1.6	218	na	na	na	na
<10 years older/same age/younger/ don't know	1.4	554	na	na	na	na
Missing	2.2	140	na	na	na	na
Higher-risk intercourse in past 12 months¹						
Had higher-risk intercourse	2.7	278	1.3	365	1.9	643
Had sexual intercourse, not higher-risk	1.0	425	0.0	83	0.8	508
No sexual intercourse in past 12 months	1.2	209	0.0	70	0.9	279
Number of sexual partners in past 12 months						
0	0.4	201	0.0	63	0.3	265
1	1.6	663	0.2	358	1.1	1,021
2+	(3.3)	40	4.4	87	4.0	127
Missing	*	8	*	9	*	17
Number of higher-risk partners in past 12 months²						
0	1.0	634	0.0	153	0.8	786
1	2.5	248	0.7	290	1.5	538
2+	(4.4)	30	3.5	75	3.7	105
Condom use						
Ever used a condom	1.1	66	1.3	170	1.3	237
Never used a condom	1.6	838	0.7	330	1.4	1,167
Missing	*	7	*	18	*	26
Condom use at first sex						
Used condom	(0.0)	24	(0.0)	39	0.0	64
Did not use condom	1.5	842	1.0	461	1.3	1,303
Missing	(6.9)	28	*	15	(4.5)	43
Condom use at last sex in past 12 months						
Used condom at last sex	(0.0)	24	1.3	83	1.0	107
Did not use condom	1.8	672	1.0	358	1.5	1,030
No sexual intercourse in past 12 months	1.2	209	0.0	70	0.9	279
Missing	*	6	*	8	*	14
Total 15-24	1.6	911	0.9	518	1.3	1,429

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

Figures in parentheses are based on 25 to 49 unweighted cases.

Na = Not applicable

¹ Sexual intercourse with a non-marital, non-cohabiting partner

² At least one non-marital, non-cohabiting partner among the last three partners in the past 12 months

Young women who have ever used a condom are only slightly less likely to be HIV positive (1.1 percent) than those who have never used a condom (1.6 percent), while the opposite is true for young men: 1.3 percent of men who have ever used a condom are HIV positive, compared with 0.7 percent of those who never used a condom. Among both young women and men, HIV prevalence is slightly higher for those who did not use a condom during their first sexual encounter than for those who did use a condom. Finally, young women who did not use a condom during last sexual intercourse in the past year have higher HIV prevalence (1.8 percent) than those who did not (close to 0 percent). The opposite is seen for men, although the differentials among men are very small. With such low levels of HIV, it is difficult to identify any patterns in the differentials.

14.5 HIV PREVALENCE AMONG COUPLES

Both partners were tested in a total of 1,412 cohabiting couples in the 2008 SLDHS. Results shown in Table 14.11 indicate that for 98 percent of cohabiting couples, both partners are HIV negative. In a very small proportion of couples (0.4 percent), both partners are HIV positive; and in 1.9 percent of couples one partner is HIV positive and the other is HIV negative. These discordant couples are at high risk for HIV transmission, especially if they do not mutually know their HIV status or do not use condoms consistently. For 0.7 percent of cohabiting couples, the man is HIV positive and the woman is HIV negative, while for 1.2 percent of couples, the woman is HIV positive and the man is HIV negative. Couple-oriented voluntary counselling and testing (VCT) services, where partners (including those in polygynous marriages) go together and receive the HIV test results together, are available at some locations in the country, but couples attend as clients in only a few VCT centres. Differentials in couple patterns of HIV and discordance by background characteristics are too small to note.

14.6 MEASURING THE HIV BURDEN IN SIERRA LEONE

The HIV prevalence rate obtained in the 2005 Sierra Leone sero-prevalence survey was 1.54 percent (SSL and NAS, 2005), which is the same as the rate obtained in the 2008 SLDHS (1.5 percent among respondents age 15-49). The results of the 2008 SLDHS confirm that Sierra Leone has a low-level HIV epidemic, and provide useful information on the distribution of HIV in the population. The inclusion of HIV testing in the 2008 SLDHS is important because the results provide the basis for more precise estimates of the HIV burden in Sierra Leone and permit the calibration of estimates of HIV prevalence based on sentinel surveillance of pregnant women.

This linkage of HIV test results with demographic and behavioural data enhances the understanding of the distribution, patterns, and risk factors of HIV in Sierra Leone, with the potential to improve planning and implementation of health programmes. Further analysis of the 2008 SLDHS data will provide additional information on the links between behaviour, knowledge, and HIV prevalence in Sierra Leone.

Table 14.11 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, Sierra Leone 2008

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Woman's age						
15-19	1.7	0.0	0.5	97.8	100.0	92
20-29	0.4	0.4	1.7	97.5	100.0	641
30-39	0.3	0.7	0.2	98.7	100.0	487
40-49	0.0	2.0	2.1	96.0	100.0	192
Man's age						
15-19	*	*	*	*	100.0	4
20-29	0.7	0.0	1.4	97.9	100.0	225
30-39	0.5	0.8	1.2	97.5	100.0	560
40-49	0.3	0.9	1.5	97.2	100.0	433
50-59	0.0	0.7	0.0	99.3	100.0	190
Age difference between partners						
Woman older	(0.0)	(0.0)	(0.0)	(100.0)	100.0	46
Same age/man older by 0-4 years	0.4	1.7	1.6	96.3	100.0	339
Man older by 5-9 years	0.6	0.3	1.1	97.9	100.0	465
Man older by 10-14 years	0.0	0.3	0.6	99.2	100.0	336
Man older by 15+ years	0.6	0.7	1.7	96.9	100.0	227
Type of union						
Monogamous	0.4	0.5	1.5	97.6	100.0	1,041
Polygynous	0.3	1.4	0.4	97.9	100.0	338
Don't know/missing	(0.0)	(0.0)	(0.0)	(100.0)	100.0	33
Residence						
Urban	0.8	1.0	1.9	96.3	100.0	366
Rural	0.3	0.6	0.9	98.2	100.0	1,046
Region						
Eastern	0.6	0.3	1.3	97.8	100.0	282
Northern	0.5	1.2	1.3	97.0	100.0	581
Southern	0.0	0.0	0.1	99.9	100.0	345
Western	0.7	1.0	2.4	96.0	100.0	204
Woman's education						
No education	0.4	0.7	1.1	97.7	100.0	1,113
Primary	0.0	1.1	1.4	97.5	100.0	152
Secondary or higher	0.9	0.0	1.2	97.9	100.0	147
Man's education						
No education	0.3	0.7	0.5	98.4	100.0	894
Primary	0.9	0.0	2.4	96.7	100.0	153
Secondary or higher	0.4	0.9	2.2	96.5	100.0	366
Wealth quintile						
Lowest	0.3	0.0	0.9	98.7	100.0	331
Second	0.5	0.3	1.5	97.7	100.0	319
Middle	0.1	0.8	0.3	98.8	100.0	297
Fourth	0.6	1.7	1.5	96.2	100.0	256
Highest	0.6	1.0	1.7	96.7	100.0	210
Total	0.4	0.7	1.2	97.7	100.0	1,412

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. The table based on couples for which a valid test result (positive or negative) is available for both partners.

This chapter presents information on indicators of women's empowerment, develops three empowerment indices, and relates these indices to select demographic and health outcomes. The study of women's status and empowerment is important on its own, but takes on a special significance in conjunction with the study of demographic and health outcomes. As caretakers for children, women are the focus of a number of population, health, and nutrition programmes. The constraints women face in obtaining information about, accessing, and utilizing these programmes are inherently tied to their status in society, but also their status in the home.

The 2008 Sierra Leone Demographic and Health Survey (SLDHS) Woman's and Man's Questionnaires collected data on the general background characteristics (e.g., age, education, wealth quintile, and employment status) of respondents 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, and control over the use of their own earnings and those of the spouse.¹

The SLDHS also collected data from women and men on the woman's participation in household decision-making, on the circumstances under which the respondent feels that a woman is justified in refusing to have sexual intercourse with her husband, and her/his attitude toward wife beating. For this report, three separate indices of empowerment were developed based on women's responses. The first index is based on the number of household decisions in which the respondent participates, the second on her opinion on the number of reasons that justify wife beating, and the third on 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 and the use of reproductive health care services during pregnancy, childbirth, and the postnatal period.

15.1 EMPLOYMENT AND FORM OF EARNINGS

Table 15.1 shows the percentage of currently married women and men age 15-49 who were employed in the 12 months before the survey and the percent distribution of the employed respondents by type of earnings they received (cash, in-kind, both, or neither). Eighty-five percent of currently married women reported being employed in the past 12 months. The percentage of currently married women who were employed increases with age peaking at 89 percent for age group 30-34 and then fluctuates at 87-89 percent in older age groups.

Although employment is assumed to go hand in hand with payment for work, not all women receive earnings for the work they do, and even among women who do receive earnings, not all are paid in cash. Seventeen percent of employed women receive payment in cash only, and just 6 percent receive both cash and in-kind payment. Five percent of women who were employed in the past 12 months receive payment only in kind. A large majority of employed women (72 percent) do not receive any form of payment for their work.

¹ The questions were phrased in terms of 'husband/partner' (for women) and 'wife/partner' (for men), referring to marital partners; however in this report, the word 'partner' has been dropped to simplify the text and tables.

Table 15.1 also shows that nearly all men age 15-49 (98 percent) were involved in some type of work in the 12 months preceding the survey. Men in the younger age group with large enough number of cases for analysis (20-24 years) are slightly less likely to be employed than older men. Men are more likely to receive cash for their work than women. About one in four men (26 percent) receive only cash for their work, one in ten (10 percent) receive cash and in-kind payment, and just 1 percent are paid in kind only. More than six in ten men (63 percent) do not receive any payment for their work.

Table 15.1 Employment and cash earnings of currently married women									
Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Sierra Leone 2008									
Age	Currently married respondents		Percent distribution of currently married respondents employed in the past 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		
WOMEN									
15-19	76.2	359	13.0	5.5	5.7	75.2	0.5	100.0	273
20-24	74.1	812	15.4	5.2	6.8	72.3	0.3	100.0	602
25-29	85.1	1,429	18.0	4.3	4.8	71.9	0.9	100.0	1,217
30-34	88.5	899	18.2	7.1	4.2	69.9	0.6	100.0	796
35-39	87.8	1,022	16.7	5.1	4.0	73.7	0.5	100.0	898
40-44	87.4	572	17.5	6.9	4.6	70.4	0.5	100.0	500
45-49	88.6	431	16.1	5.9	4.7	72.9	0.4	100.0	382
Total	84.5	5,525	17.0	5.5	4.8	72.1	0.6	100.0	4,668
MEN									
15-19	*	5	*	*	*	*	*	100.0	5
20-24	95.3	79	27.4	4.8	4.1	63.7	0.0	100.0	75
25-29	96.9	283	20.4	10.6	2.1	66.9	0.0	100.0	274
30-34	97.6	308	28.6	9.3	0.4	61.7	0.0	100.0	301
35-39	97.8	479	24.1	10.2	0.6	64.7	0.4	100.0	468
40-44	97.7	303	34.1	10.0	0.4	55.6	0.0	100.0	296
45-49	98.9	310	23.5	9.1	1.5	65.3	0.6	100.0	307
Total 15-49	97.7	1,767	26.0	9.6	1.1	63.1	0.2	100.0	1,726
50-59	97.3	310	25.6	12.2	0.3	61.6	0.4	100.0	301
Total 15-59	97.6	2,077	25.9	10.0	0.9	62.9	0.2	100.0	2,027

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

15.2 USE OF EARNINGS

Besides having access to income, women need to be able to exert control over their earnings to be empowered. To assess this, currently married women who earned cash for their work in the 12 months preceding the survey were asked who the main decision-maker is with regard to the use of their earnings. Women's perception on the magnitude of their earnings relative to those of their husband is also explored as another measure of their empowerment.

Table 15.2.1 presents the results on use of women's earnings. About one-third (34 percent) of currently married women who receive cash earnings reported that they are the main decision-makers on how their earnings are used; a slightly larger proportion of women (37 percent) reported that they decide jointly with their husband. More than one in four women (27 percent) reported that their husband alone decides how their earnings are used. This proportion is markedly higher (at least 40 percent) among the youngest women, those from the Northern Region, and those from the second and middle wealth quintiles.

Women in their 30s and early 40s are more likely than younger or older women to make independent decisions on their earnings, with women age 40-44 being the most likely to do so (44 percent). Women with five or more children are more likely to decide on their own how to use their earnings than women with fewer or no children. Rural women (27 percent) and those living in the Eastern and Northern regions are less empowered in terms of this indicator (24 and 25 percent, respectively)

The data indicate a positive relationship between level of education and women's decision-making power regarding how their cash earnings are used. More than four in ten women with secondary or higher education (44 percent) reported that they make independent decisions on how to use the money they earn, compared with about three in ten women (30 percent) with no education. Women in the highest wealth quintile are the most likely to decide independently on how to spend their earnings (45 percent), while those in the second wealth quintile are the least likely (21 percent).

Table 15.2.1 Control over women's cash earnings and relative magnitude of women's 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, Sierra Leone 2008

Background characteristic	Person who decides how the wife's cash earnings are used:					Total	Woman's cash earnings compared with husband's cash earnings:					Total	Number of women
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing		More	Less	About the same	Husband has no earnings	Don't know/ Missing		
Age													
15-19	(29.1)	(23.9)	(40.6)	(3.8)	(2.5)	100.0	(15.7)	(63.5)	(13.7)	(0.0)	(7.1)	100.0	51
20-24	31.2	38.8	22.3	1.8	6.0	100.0	7.3	70.6	11.7	0.9	9.5	100.0	124
25-29	28.1	37.1	33.1	0.2	1.5	100.0	11.5	69.3	11.7	2.1	5.4	100.0	272
30-34	37.0	35.0	26.4	0.6	1.0	100.0	9.9	73.8	10.0	1.9	4.4	100.0	202
35-39	38.6	39.4	21.5	0.0	0.5	100.0	14.7	61.1	14.5	4.4	5.4	100.0	196
40-44	44.3	36.5	18.8	0.0	0.5	100.0	13.8	69.1	8.1	2.8	6.2	100.0	122
45-49	30.1	43.4	26.5	0.0	0.0	100.0	15.8	65.2	8.7	3.6	6.8	100.0	84
Number of living children													
0	34.2	33.3	30.7	0.0	1.8	100.0	9.7	72.9	12.2	0.0	5.2	100.0	110
1-2	31.1	38.1	27.3	1.2	2.3	100.0	11.8	68.4	12.2	1.4	6.2	100.0	400
3-4	33.6	38.7	25.9	0.4	1.4	100.0	13.1	64.4	10.7	4.8	6.9	100.0	344
5+	41.8	34.4	23.7	0.0	0.0	100.0	12.3	71.6	10.1	1.7	4.2	100.0	196
Residence													
Urban	43.1	37.5	18.1	0.6	0.8	100.0	12.2	67.8	10.9	3.5	5.5	100.0	482
Rural	26.8	36.8	33.7	0.6	2.2	100.0	12.0	68.4	11.7	1.6	6.3	100.0	567
Region													
Eastern	23.8	56.2	18.2	0.0	1.8	100.0	10.4	67.0	19.7	0.9	2.0	100.0	133
Northern	25.0	27.5	46.0	0.9	0.6	100.0	12.3	66.5	10.1	4.5	6.7	100.0	305
Southern	40.2	31.0	24.7	0.7	3.4	100.0	11.9	70.3	10.7	1.0	6.1	100.0	279
Western	42.0	43.4	13.4	0.4	0.8	100.0	12.8	68.4	9.6	2.4	6.8	100.0	332
Education													
No education	30.4	35.3	32.2	0.5	1.6	100.0	12.7	69.9	9.6	2.5	5.3	100.0	658
Primary	35.4	37.7	23.1	1.8	1.9	100.0	12.7	60.4	15.7	2.7	8.5	100.0	146
Secondary or higher	43.7	41.5	13.5	0.0	1.2	100.0	10.2	68.0	13.4	2.2	6.2	100.0	246
Wealth quintile													
Lowest	30.0	34.5	30.2	0.0	5.3	100.0	7.5	63.2	16.7	2.8	9.8	100.0	125
Second	21.4	35.9	41.9	0.9	0.0	100.0	15.1	68.8	12.0	0.6	3.5	100.0	156
Middle	25.9	31.4	40.0	1.1	1.6	100.0	13.3	67.5	9.9	2.8	6.5	100.0	174
Fourth	36.2	35.9	26.0	0.5	1.4	100.0	12.0	69.7	9.6	2.8	5.8	100.0	250
Highest	44.5	42.4	11.8	0.4	1.0	100.0	11.9	68.8	11.0	2.7	5.6	100.0	344
Total	34.2	37.1	26.5	0.6	1.6	100.0	12.1	68.2	11.3	2.4	6.0	100.0	1,050

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

Regarding the relative magnitude of women's earnings compared with those of their husband, 68 percent of women reported that they earn less than their husband, 12 percent believe that they earn more, and 11 percent said that they earn about the same amount. Thus, nearly one in four employed married women earns at least as much as her husband. Women age 20-24 (7 percent), those with no children (10 percent), women living in the Eastern Region (10 percent), and women in the lowest wealth quintile (8 percent) are less likely than their counterparts to report that they earn more than their husband. Surprisingly, the data show that women with secondary or higher education are somewhat less likely (10 percent) than women with no education or with a primary education (13 percent each) to report that they earn more than their husband.

In the 2008 SLDHS, men who earned cash for their work in the 12 months preceding the survey were asked about the main decision-maker on how their earnings are used. Currently married women whose husbands receive cash earnings were also asked about who mainly makes the decision on how their husband's cash earnings are used. The data are presented in Table 15.2.2.

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, Sierra Leone 2008

Background characteristic	Men						Number of men	Women						Number of women
	Person who decides how husband's cash earnings are used:					Total		Person who decides how husband's cash earnings are used:					Total	
	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing			Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing		
Age														
15-19	na	na	na	na	na	0.0	0	5.3	38.9	51.3	0.8	3.6	100.0	346
20-24	*	*	*	*	*	100.0	24	3.2	42.2	52.2	0.6	1.7	100.0	795
25-29	8.2	45.8	45.9	0.0	0.0	100.0	85	4.3	38.7	54.2	0.5	2.2	100.0	1,404
30-34	4.7	37.4	52.2	0.0	5.7	100.0	114	4.6	40.4	53.6	0.1	1.2	100.0	886
35-39	5.6	43.1	48.0	0.0	3.3	100.0	161	5.7	41.1	51.5	0.0	1.7	100.0	1,004
40-44	5.5	45.0	46.8	0.0	2.8	100.0	130	8.4	42.0	48.6	0.0	1.1	100.0	560
45-49	1.9	39.2	56.7	0.0	2.3	100.0	100	8.7	39.9	50.7	0.0	0.7	100.0	426
Number of living children														
0	3.9	35.7	53.8	0.0	6.6	100.0	52	4.6	38.7	52.4	1.9	2.5	100.0	505
1-2	5.2	45.4	48.1	0.0	1.2	100.0	204	5.0	38.7	53.8	0.2	2.3	100.0	2,095
3-4	5.0	35.6	56.9	0.0	2.5	100.0	208	5.2	41.0	52.3	0.1	1.3	100.0	1,754
5+	5.5	46.0	43.2	0.0	5.3	100.0	150	6.2	43.5	49.2	0.1	1.1	100.0	1,066
Residence														
Urban	3.5	43.7	49.5	0.0	3.3	100.0	356	6.5	42.5	48.3	0.4	2.3	100.0	1,513
Rural	7.3	38.3	51.6	0.0	2.9	100.0	258	4.8	39.6	53.8	0.3	1.5	100.0	3,907
Region														
Eastern	3.6	57.0	36.7	0.0	2.8	100.0	75	8.2	35.0	55.1	0.0	1.7	100.0	1,005
Northern	7.0	38.3	47.9	0.0	6.9	100.0	113	3.7	45.5	48.5	0.3	1.9	100.0	2,388
Southern	8.2	30.1	60.4	0.0	1.3	100.0	187	5.2	33.8	59.4	0.6	1.0	100.0	1,193
Western	2.2	46.8	48.1	0.0	2.9	100.0	239	6.4	41.5	49.5	0.0	2.5	100.0	834
Education														
No education	5.9	35.7	54.4	0.0	4.0	100.0	254	5.1	39.2	53.9	0.3	1.5	100.0	4,201
Primary	1.6	47.1	49.4	0.0	1.9	100.0	79	5.7	37.6	53.7	0.7	2.4	100.0	590
Secondary or higher	5.3	44.9	47.1	0.0	2.7	100.0	281	6.3	51.2	40.0	0.0	2.6	100.0	629
Wealth quintile														
Lowest	10.1	33.8	53.1	0.0	3.1	100.0	82	5.1	35.0	58.1	0.2	1.5	100.0	1,162
Second	10.5	36.5	50.3	0.0	2.7	100.0	63	4.3	36.9	56.6	0.6	1.6	100.0	1,127
Middle	6.6	38.3	55.1	0.0	0.0	100.0	86	4.3	43.3	50.7	0.2	1.5	100.0	1,165
Fourth	2.5	44.9	47.0	0.0	5.5	100.0	150	6.4	42.4	49.1	0.0	2.0	100.0	1,026
Highest	2.9	44.3	49.9	0.0	2.8	100.0	233	6.6	45.3	45.4	0.4	2.3	100.0	940
Total 15-49	5.1	41.4	50.4	0.0	3.1	100.0	614	5.3	40.4	52.3	0.3	1.8	100.0	5,420
50-59	2.1	38.9	57.0	0.9	1.1	100.0	114	na	na	na	na	na	0.0	0
Total 15-59	4.6	41.0	51.4	0.1	2.8	100.0	728	na	na	na	na	na	0.0	0

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Overall, half of currently married men who receive cash earnings and currently married women whose husbands receive cash earnings reported that the husband alone mainly decides how his cash earnings are used. About four in ten men and women said that this decision is made jointly by the husband and wife. One in twenty men and women said that the decision about how the husband's cash earnings are used is made mainly by the wife.

Older men age 45-49 are more likely than other men to report that they alone decide on how their cash earnings are used. Among women, the variations in this indicator by age are small. Men and women with five or more children are the least likely to report that the husband alone decides how his cash earnings are used, compared with respondents with fewer or no children. Respondents living in the Southern Region (60 percent of men and 59 percent of women) are more likely than respondents in the other regions to report the husband as the main decision-maker on this indicator. At the opposite end of the scale, women with secondary or higher education (40 percent) and those from the highest wealth quintile (45 percent) are least likely to report that the husband alone makes the decision on how his cash earnings are used. Differences by other background characteristics are small. Finally, it is worth noting that women with secondary or higher education (51 percent) and men from the Eastern Region (57 percent) are most likely to decide jointly with their spouses how to use the husband's cash earnings.

Table 15.3 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 all currently married women whose husbands earned cash in the past 12 months, 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 or partner.

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 past 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 woman's and husband's cash earnings, Sierra Leone 2008

Women's earnings relative to husband's earnings	Person who decides how the wife's cash earnings are used:					Total	Number of women	Person who decides how husband's cash earnings are used:					Total	Number of women
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing			Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing		
More than husband	29.6	46.1	22.7	1.7	0.0	100.0	127	14.7	58.1	27.2	0.0	0.0	100.0	115
Less than husband	37.5	32.7	29.3	0.5	0.0	100.0	715	6.0	38.9	53.0	0.9	1.2	100.0	715
Same as husband	14.4	70.2	15.4	0.0	0.0	100.0	119	2.5	72.3	23.3	0.0	1.8	100.0	119
Husband has no cash earnings or did not work	(45.1)	(23.3)	(29.2)	(0.0)	(2.3)	100.0	26	na	na	na	na	na	0.0	0
Woman worked but has no cash earnings	na	na	na	na	na	0.0	0	5.4	38.7	54.4	0.2	1.3	100.0	3,582
Woman did not work	na	na	na	na	na	0.0	0	3.5	43.3	48.9	0.2	4.1	100.0	827
Don't know/missing	40.2	11.9	22.9	0.0	25.1	100.0	63	3.3	19.1	70.3	1.6	5.7	100.0	62
Total ¹	34.2	37.1	26.5	0.6	1.6	100.0	1,050	5.3	40.4	52.3	0.3	1.8	100.0	5,420

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

na = Not applicable

¹ Excludes cases in which a woman or her husband/partner has no earnings, and includes cases in which a woman does not know whether she earned more or less than her husband/partner

Women whose husbands did not work or had no cash income are more likely to decide how their own incomes are used (45 percent) compared with women whose incomes are less (38 percent) or the same as their husband's (15 percent). On the other hand, women who earn more than their husbands are more likely to decide how the husband's income is used. Women who said they earn about the same amount as their husbands are more likely to make joint decisions with their husbands about how to use their own and their husbands' incomes.

15.3 WOMAN'S PARTICIPATION IN DECISION-MAKING

Women's participation in the decision-making process is an important indicator of their empowerment. To assess women's decision-making autonomy, the 2008 SLDHS sought information on women's participation in four types of household decisions: her own health care; making large household purchases; making household purchases for daily needs; and visits to family or relatives. Table 15.4.1 shows the percent distribution of currently married women according to the person in the household who usually makes decisions concerning these matters. Women are considered to participate in decision-making if they make decisions alone or jointly with their husband or someone else.

The strength of women's role in decision-making varies with the type of decision. One in four currently married women reported that they alone made the final decision about daily household purchases. However, more than one-third (35 percent) said that their husband alone makes the decision about the purchase of daily household needs. Although more than one in ten (12 percent) women make sole decisions on their own health care, nearly half (47 percent) reported that their husband makes such decisions mainly by himself. Decisions on large household purchases are most likely to be made by the husband (49 percent), followed by the respondent and her husband jointly (39 percent). Approximately half of women (48 percent) reported that the decision to visit family or relatives is made jointly with their husband, and around four in ten (37 percent) said that their husbands alone make this decision.

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	11.8	39.7	46.7	0.6	0.1	1.0	100.0	5,525
Major household purchases	9.6	39.4	49.4	0.5	0.1	1.0	100.0	5,525
Purchases of daily household needs	25.3	38.0	34.8	0.8	0.2	0.9	100.0	5,525
Visits to her family or relatives	13.1	48.1	37.4	0.3	0.1	0.9	100.0	5,525

In the 2008 SLDHS, men were asked about who they think should have a greater say in making decisions about five specific issues: making large household purchases; making household purchases for daily needs; visits to wife's family or relatives; what to do with the money a wife earns; and how many children to have.

Fifty-two percent of men believe that the decision about how many children to have should be made jointly with their spouse (Table 15.4.2). Most men believe that the decision on major household purchases (58 percent) should be made mostly by the husband alone or jointly with their spouse (34 percent), while only 6 percent of men say the wife alone should have the greater say in making this decision. An almost equal proportion of men believe that the wife alone (34 percent) or the husband alone (36 percent) should make the decision on purchases for daily household needs. It is worth noting that a sizeable percentage of men think that the decision on visits to wife's family or relatives should be made jointly (47 percent) or by the husband alone (45 percent). Finally, an equal proportion of men, around four in ten, believe that the husband alone or the wife and husband jointly should make the decision on how the wife's earnings are used.

Overall, data show that for four of the five issues, the majority of men think that these decisions should be made by the husband alone or by the wife and husband jointly, except for purchases for daily household needs that could be decided equally by the wife or by the husband alone.

Decision	Wife	Wife and husband equally	Husband	Don't know/depends	Missing	Total	Number of men
Major household purchases	5.6	34.1	58.4	1.3	0.5	100.0	1,767
Purchases for daily household needs	33.5	28.7	36.2	1.0	0.6	100.0	1,767
Visits to wife's family or relatives	6.3	46.8	45.2	1.1	0.7	100.0	1,767
What to do with the money the wife earns	15.7	41.4	41.3	1.1	0.5	100.0	1,767
How many children to have	4.4	52.1	40.0	2.9	0.5	100.0	1,767

Table 15.5.1 shows the percentage of married women who reported that they alone or jointly with their husband make specific household decisions, according to background characteristics. The results indicate that four in ten of currently married women participate in all of the four specified decisions, while more than one in four (27 percent) reported that they do not participate in any of the decisions. The majority of currently married women participate in making decisions on daily purchases (63 percent) and visits to family or relatives (61 percent), but fewer participate in making decisions about their own health care (52 percent) or about making large household purchases (49 percent).

Older women are more likely than younger women to have a say in all the specified decisions. Participation in decision-making is highest among employed women who are paid in cash (48 percent) and those with five or more children (44 percent). Urban women are more likely than rural women to participate in all four decisions (45 and 38 percent, respectively). Looking at regional variations, the proportion of women who participate in all four specified decisions is lowest among

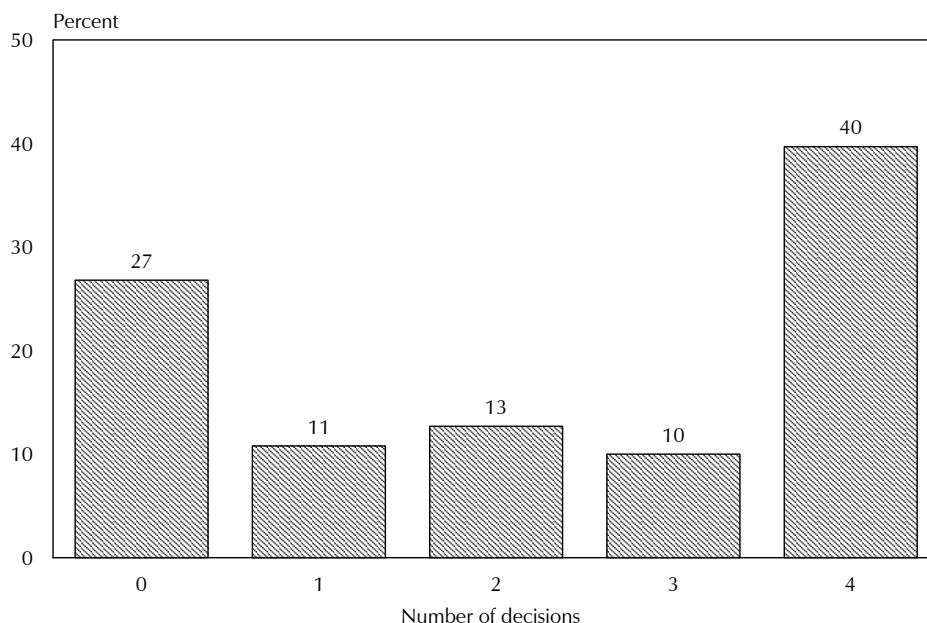
women living in the Southern Region (31 percent) and highest in the Western Region (46 percent). The proportion of women who participate in all four decisions is highest among women with secondary or higher education and among women in the highest wealth quintile (50 percent each).

Women may have a say in some but not other decisions. To assess a woman's overall decision-making autonomy, the decisions in which she participates—that is, in which she alone has the final say or she and her husband decide jointly—are added together. The total number of decisions in which a woman participates is one simple measure of her empowerment. The number of decisions which a woman makes herself or jointly with her husband is positively related to women's empowerment and reflects the degree of decision-making control women are able to exercise in areas that affect their lives and environments. Figure 15.1 shows the distribution of currently married women according to the number of decisions in which they participate. As can be seen in the figure, around four in ten women reported that they participate in four household decisions, while around one-fourth do not participate in any decision-making at all.

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	42.1	40.5	51.8	51.4	32.9	37.4	359
20-24	47.7	46.8	62.2	60.0	36.2	28.0	812
25-29	50.0	46.8	62.5	60.4	38.7	27.8	1,429
30-34	53.4	51.1	63.9	60.7	40.9	25.9	899
35-39	53.5	49.3	63.5	62.8	40.2	25.3	1,022
40-44	56.9	52.8	67.3	68.7	44.1	22.2	572
45-49	56.1	56.8	70.3	62.7	45.5	23.7	431
Employment (past 12 months)							
Not employed	51.7	50.7	61.2	60.1	43.7	30.5	835
Employed for cash	59.9	57.4	69.5	67.0	48.2	22.0	1,050
Employed, not for cash	49.3	46.3	62.3	60.1	36.4	27.0	3,591
Number of living children							
0	44.7	43.5	56.7	56.4	33.3	33.3	516
1-2	49.2	47.0	61.5	58.7	38.6	29.3	2,136
3-4	52.5	50.6	64.1	62.3	40.4	25.4	1,793
5+	57.9	52.8	68.7	67.1	43.7	20.8	1,080
Residence							
Urban	55.3	54.1	67.7	65.5	45.1	23.4	1,561
Rural	50.1	46.9	61.6	59.6	37.5	28.1	3,965
Region							
Eastern	46.2	47.6	56.2	52.8	38.2	35.8	1,028
Northern	57.1	51.0	69.2	67.6	42.5	20.4	2,434
Southern	41.7	41.8	55.1	50.6	30.7	34.6	1,206
Western	56.1	54.9	66.6	68.6	46.0	23.1	858
Education							
No education	49.9	46.6	61.6	59.7	37.9	28.4	4,280
Primary	53.1	52.2	64.4	61.6	40.9	24.7	601
Secondary or higher	60.7	61.5	73.9	71.6	50.3	18.2	644
Wealth quintile							
Lowest	45.2	42.9	61.5	56.8	33.6	28.8	1,178
Second	46.7	40.6	57.5	55.7	33.2	31.3	1,144
Middle	53.5	51.2	62.2	60.4	40.4	27.7	1,186
Fourth	54.7	53.1	65.7	64.4	43.7	25.2	1,051
Highest	59.2	59.0	71.2	71.0	49.5	19.6	967
Total	51.5	49.0	63.3	61.3	39.7	26.8	5,525

Note: Total includes 50 women with information missing on employment in the past 12 months.

Figure 15.1 Number of Household Decisions in Which Currently Married Women Participate



Note: See Table 15.5.1 for specific decisions.

SLDHS 2008

Men were asked about their attitudes towards wives' participation in the decision-making process. Table 15.5.2 indicates that around one-fourth (26 percent) of currently married men age 15-49 believe that a wife should independently or jointly with her husband have a say on all five specified decisions. Men are most likely to agree on women's participation in deciding on purchases for daily household needs (62 percent), on what to do with the money the wife earn, and on the number of children to have (57 percent each). However, they are somewhat less likely to agree on a wife's decision-making participation with regard to the purchase of major household items (40 percent) or visits to her family or friends (53 percent). Urban men, those living in the Eastern Region, men age 40-44, unemployed men, and those employed for cash are more likely than other men to think that a wife should have the greater say or an equal say with her husband for all five decisions. The more educated or wealthy a man is, the more likely he is to support a wife's participation in household decision-making.

Table 15.5.2 Men's attitudes towards 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, Sierra Leone 2008

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	*	*	*	*	*	*	*	5
20-24	30.5	58.4	53.9	49.6	53.1	21.3	28.0	79
25-29	38.9	63.6	52.3	56.1	59.0	21.8	17.1	283
30-34	37.4	60.9	52.4	57.4	52.1	25.4	21.3	308
35-39	38.4	59.9	48.8	53.5	55.4	26.1	24.3	479
40-44	50.5	66.8	57.7	63.6	59.9	32.2	15.1	303
45-49	36.9	62.6	56.5	58.7	58.4	26.4	20.7	310
Employment (past 12 months)								
Not employed	(50.2)	(60.9)	(51.0)	(68.2)	(66.4)	(35.2)	(18.2)	39
Employed for cash	45.5	68.7	52.5	61.2	57.7	30.2	19.9	614
Employed, not for cash	36.4	58.9	53.7	54.6	55.8	23.8	20.9	1,108
Number of living children								
0	37.5	60.4	54.6	58.7	56.9	24.3	20.6	126
1-2	40.0	63.7	55.2	57.7	57.2	26.6	20.4	583
3-4	45.0	64.4	51.1	60.8	60.7	30.5	19.9	526
5+	34.7	58.7	52.4	52.2	51.6	21.9	21.8	532
Residence								
Urban	44.4	66.9	56.7	66.0	63.0	30.2	15.8	517
Rural	37.8	60.2	51.6	53.3	53.9	24.5	22.7	1,250
Region								
Eastern	49.8	65.1	69.3	68.3	71.2	40.1	18.1	382
Northern	24.7	53.0	44.8	46.1	48.8	12.6	23.3	689
Southern	50.1	66.6	54.5	58.1	54.1	34.9	25.0	388
Western	47.8	73.5	49.5	66.1	58.8	28.3	12.5	308
Education								
No education	35.2	57.9	50.8	53.8	52.9	24.2	23.9	1,081
Primary	44.1	61.7	53.1	53.7	55.3	26.4	24.1	203
Secondary or higher	48.0	71.9	58.3	65.6	65.3	30.6	12.1	483
Wealth quintile								
Lowest	40.7	58.3	55.4	55.2	51.9	30.6	27.8	391
Second	34.5	55.6	48.4	51.1	50.2	19.3	25.5	370
Middle	35.5	61.1	53.0	56.0	59.2	21.5	16.3	350
Fourth	41.7	63.9	51.1	55.3	56.8	28.7	19.8	353
Highest	47.4	74.4	58.1	69.7	66.8	31.3	11.7	303
Total 15-49	39.7	62.2	53.1	57.0	56.5	26.2	20.7	1,767
50-59	37.9	54.1	53.9	49.6	50.1	27.3	27.0	310
Total 15-59	39.5	61.0	53.2	55.9	55.6	26.3	21.6	2,077

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 6 men with information missing on employment in the past 12 months

15.4 ATTITUDES TOWARD WIFE BEATING

The critical problems that women face are many and diverse. One of these, and essentially the most serious, is the issue of violence against women, and Sierra Leone is no exception in this regard. This is a serious issue because it concerns the personal security of women, and the right to personal security is fundamental to all other rights. The attitudes of women and men towards wife beating can be considered a proxy indicator for their attitudes towards domestic violence.

All women and men interviewed in the 2008 SLDHS were asked whether a husband is justified in hitting or beating his wife in each of the following five situations: if she burns the food; if she argues with him; if she goes out without telling him; if she neglects the children; and if she refuses to have sexual intercourse with him. A lower score on the 'number of reasons wife beating is justified' indicates a woman's greater sense of entitlement, self-esteem and status, and reflects positively on her sense of empowerment.

A woman who believes that a husband is justified in hitting or beating his wife, for any of the five specified reasons, may consider herself to be of low status both absolutely and relative to men. Such a perception could act as a barrier to accessing health care for herself and her children, affect her attitude toward contraceptive use, and impact her general well-being.

Table 15.6.1 indicates that nearly two-thirds of women age 15-49 (65 percent) believe that a husband is justified in beating his wife for at least one of the specified reasons. The most widely accepted reason for wife beating among women is arguing with the husband (54 percent). Around half of women believe that a husband is justified in beating his wife if she goes out without telling him (50 percent) or neglects the children (49 percent). About four in ten women (39 percent) believe that a husband is justified in hitting or beating his wife if she refuses to have sexual intercourse with him, while one in four feels that burning the food is a justifiable reason for a man to beat his wife.

Men age 15-49 are somewhat less likely than women to report that they find physical violence against women justifiable (Table 15.6.2). Overall, 58 percent of Sierra Leonean men agree with at least one of the reasons for why a man is justified in beating his wife. Men are most likely to justify beating a wife if she goes out without telling him (41 percent) and if she neglects the children (40 percent). Like women, men are least likely to say that burning food (16 percent) or refusing to have sex with the husband (23 percent) are grounds for wife beating. More than one-third of men (36 percent) feel that arguing with her husband is a justifiable reason for wife beating.

Tables 15.6.1 and 15.6.2 also show attitudes toward wife beating among women and men, respectively, by background characteristics. Women age 35-39 and employed women who do not earn cash are more likely than women from other age groups and employment status to agree with at least one of the specified reasons. Furthermore, women with five or more children and those who are currently in union are more likely than other women to agree with at least one of the reasons for justifying wife hitting or beating. Rural women are more likely than urban women to agree with one or more of the specified reasons that justify wife eating (70 percent versus 56 percent). Among regions, the proportion of women who agree with at least one of the specified reasons is lowest in the Southern Region (52 percent) and highest in the Northern Region (76 percent). The percentage of women who justify wife beating for any of the specified reasons decreases with an increase in the woman's educational attainment, from 70 percent among women with no education to 49 percent among those with secondary or higher education. The relationship between this indicator and wealth is not linear. However, the percentage of women who agree with one of the specified reasons that justify wife beating is highest among women in the three middle wealth quintiles (68 to 71 percent) and lowest among women in the highest quintile (52 percent).

The variation in the attitude of men toward wife beating by background characteristics is similar to women. Men who are employed but do not earn cash, those with five or more children, and men who are currently in union are more likely than other men to agree with at least one specified reason for wife beating. Acceptance of wife beating among men is higher in rural areas and among men in the Northern Region when compared with other men, and it declines as the level of education increases. Looking at wealth quintile, the proportion of men who agree with wife beating is lowest among men in the highest wealth quintile (43 percent).

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, Sierra Leone 2008

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	20.4	42.6	40.4	41.2	27.0	54.6	1,198
20-24	22.2	52.9	48.9	47.5	36.2	64.0	1,186
25-29	26.1	57.2	52.9	53.6	41.7	68.3	1,643
30-34	24.8	52.1	49.0	50.3	40.7	63.0	1,043
35-39	29.2	58.3	54.5	52.1	46.4	70.7	1,131
40-44	23.1	56.1	49.1	49.3	42.3	63.6	652
45-49	24.5	57.3	54.1	52.0	43.8	68.5	520
Employment (past 12 months)							
Not employed	19.0	42.9	39.9	40.1	26.9	53.2	1,682
Employed for cash	20.9	47.2	46.7	48.7	31.7	61.2	1,330
Employed, not for cash	27.8	59.7	54.6	53.6	46.5	70.4	4,286
Number of living children							
0	18.2	42.6	39.4	38.6	26.1	54.0	1,592
1-2	24.0	53.6	49.5	50.4	39.7	64.4	2,639
3-4	28.0	57.3	55.2	53.8	43.9	69.5	1,954
5+	28.0	61.5	54.7	54.6	48.0	71.1	1,189
Marital status							
Never married	13.9	35.3	31.0	35.0	17.8	46.1	1,399
Married or living together	27.5	58.5	54.5	53.3	44.9	69.4	5,525
Divorced/separated/widowed	19.3	48.5	48.2	47.6	36.5	62.7	450
Residence							
Urban	19.0	45.2	41.2	41.9	27.9	55.7	2,655
Rural	27.5	58.1	54.5	53.7	45.6	69.6	4,719
Region							
Eastern	24.6	55.3	50.1	51.0	44.0	63.7	1,325
Northern	32.4	63.4	61.8	59.4	50.4	75.8	3,001
Southern	14.7	39.8	34.0	35.9	25.9	52.3	1,542
Western	18.6	46.0	41.3	42.0	26.4	55.6	1,506
Education							
No education	28.0	58.6	54.5	53.4	46.8	69.5	4,860
Primary	23.5	52.0	49.8	49.3	33.8	65.0	960
Secondary or higher	14.0	38.3	34.4	37.1	19.0	48.9	1,554
Wealth quintile							
Lowest	22.7	54.5	49.5	48.2	44.7	66.4	1,382
Second	28.7	56.4	53.9	53.6	46.0	68.6	1,368
Middle	31.0	60.8	56.4	55.8	47.6	70.8	1,428
Fourth	24.2	56.5	53.4	52.5	37.2	68.0	1,472
Highest	17.3	41.7	37.7	39.3	24.2	51.8	1,723
Total	24.5	53.5	49.7	49.4	39.2	64.6	7,374

Note: Total includes 77 women with information missing on employment in the past 12 months.

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, Sierra Leone 2008							
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	21.0	40.3	42.4	38.4	24.6	57.4	526
20-24	15.4	36.3	38.4	40.3	20.8	54.6	403
25-29	13.4	38.0	42.4	45.6	22.8	62.9	446
30-34	13.8	36.0	41.6	41.7	22.8	58.7	373
35-39	14.9	35.7	39.8	37.9	22.5	58.3	525
40-44	12.3	35.4	41.2	39.9	20.2	56.3	336
45-49	16.8	30.9	40.4	37.8	22.6	56.1	335
Employment (past 12 months)							
Not employed	14.3	28.0	32.6	28.6	17.8	44.5	415
Employed for cash	11.4	28.9	33.1	34.4	15.4	50.5	837
Employed, not for cash	18.1	42.2	46.9	45.9	27.2	65.0	1,680
Number of living children							
0	18.5	38.2	40.6	39.1	23.7	56.6	1,137
1-2	13.7	35.0	40.8	39.2	21.4	58.5	715
3-4	10.7	32.1	39.9	41.8	18.8	57.8	551
5+	17.1	38.9	42.7	42.1	25.1	60.0	541
Marital status							
Never married	18.5	36.9	40.0	39.3	23.3	55.3	1,085
Married or living together	13.9	36.0	41.6	41.3	21.9	59.5	1,767
Divorced/separated/widowed	14.9	38.4	39.0	29.2	23.7	57.5	92
Residence							
Urban	10.0	28.7	30.4	30.8	14.5	47.4	1,123
Rural	19.1	41.2	47.4	45.9	27.4	64.4	1,822
Region							
Eastern	11.1	35.5	42.9	39.5	17.6	58.0	557
Northern	24.8	45.0	49.4	51.3	32.1	68.2	1,131
Southern	11.2	30.2	40.6	30.5	24.3	52.4	617
Western	7.4	28.0	24.6	30.4	8.0	44.9	639
Education							
No education	18.5	41.0	48.7	46.4	29.2	65.8	1,426
Primary	15.3	38.2	38.0	38.4	19.0	57.5	414
Secondary or higher	12.0	29.9	32.1	32.8	15.1	47.9	1,104
Wealth quintile							
Lowest	20.1	40.0	48.8	42.7	30.1	64.2	558
Second	21.0	42.3	50.4	48.7	32.2	66.5	520
Middle	15.3	39.3	44.7	45.6	23.8	65.6	530
Fourth	15.4	36.2	39.9	41.1	19.5	56.5	597
Highest	8.8	27.7	26.4	27.6	11.3	42.8	739
Total 15-49	15.6	36.4	40.9	40.2	22.5	57.9	2,944
50-59	14.9	35.2	44.0	39.0	26.3	54.8	336
Total 15-59	15.5	36.3	41.2	40.0	22.9	57.6	3,280

Note: total includes 13 men with information missing on employment in the past 12 months

15.5 ATTITUDES TOWARD REFUSING SEX WITH HUSBAND

Women's sexual empowerment has important implications for demographic and health outcomes such as transmission of HIV and other sexually transmitted infections (STI). It is also an indicator of women's empowerment overall because it measures women's level of acceptance of norms in certain societies that socialize them to believe that women do not have the right to refuse sexual intercourse with their husband for any reason. The number of reasons a wife can refuse to have sexual intercourse with her husband reflects perceptions of sexual roles and women's rights over their bodies, and relates positively to women's sense of self-esteem.

To measure beliefs about women's sexual empowerment, the 2008 SLDHS included questions 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; she knows her husband has sexual intercourse with other women; or 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 the issues of women's rights and consequences for women's health. Tables 15.7.1 and 15.7.2 show the responses of women and men, respectively.

Table 15.7.1 Attitudes towards a wife refusing to have 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, Sierra Leone 2008						
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	54.4	46.8	53.1	33.8	32.7	1,198
20-24	63.4	52.6	61.1	37.3	22.0	1,186
25-29	63.7	49.2	56.9	33.8	23.9	1,643
30-34	62.8	50.8	57.5	34.8	22.5	1,043
35-39	62.5	49.9	55.8	33.4	24.7	1,131
40-44	65.1	49.2	57.1	33.2	22.3	652
45-49	64.9	49.2	55.4	34.2	24.9	520
Employment (past 12 months)						
Not employed	60.6	53.9	59.4	40.8	26.7	1,682
Employed for cash	69.5	59.4	66.9	41.3	15.0	1,330
Employed, not for cash	60.6	45.2	52.8	29.9	27.0	4,286
Marital status						
Never married	61.6	53.6	60.5	41.4	27.2	1,399
Married or living together	61.5	48.1	54.9	32.1	25.0	5,525
Divorced/separated/widowed	69.4	57.7	67.8	41.8	16.4	450
Number of living children						
0	58.6	49.0	54.1	35.7	29.8	1,592
1-2	63.6	50.9	58.5	34.8	23.0	2,639
3-4	63.6	50.9	57.9	35.0	22.6	1,954
5+	60.4	45.9	54.7	31.0	26.3	1,189
Residence						
Urban	66.2	55.7	63.4	41.8	20.8	2,655
Rural	59.7	46.3	53.0	30.3	27.2	4,719
Region						
Eastern	63.6	54.3	56.9	35.5	22.7	1,325
Northern	55.7	43.7	48.6	26.9	30.8	3,001
Southern	66.0	50.9	62.5	40.2	23.2	1,542
Western	69.3	56.5	67.1	42.6	16.8	1,506
Education						
No education	59.4	45.9	52.4	29.5	27.3	4,860
Primary	62.8	50.7	58.2	38.3	24.7	960
Secondary or higher	69.6	61.0	69.6	47.4	17.5	1,554
Wealth quintile						
Lowest	59.5	46.2	54.1	31.3	28.0	1,382
Second	60.3	46.8	52.8	28.0	25.6	1,368
Middle	57.9	45.0	50.3	29.2	29.4	1,428
Fourth	62.9	49.6	58.1	36.2	24.3	1,472
Highest	68.2	58.9	66.4	44.8	18.6	1,723
Total	62.0	49.7	56.8	34.4	24.9	7,374

Note: Total includes 77 women with information missing on employment in the past 12 months.

Table 15.7.2 Attitudes towards a wife refusing to have 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, Sierra Leone 2008

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	63.8	51.5	60.1	46.2	30.9	526
20-24	75.4	61.7	71.1	53.8	17.3	403
25-29	74.0	58.8	69.2	50.6	19.9	446
30-34	77.0	57.8	73.6	50.4	16.0	373
35-39	82.4	63.3	78.8	56.0	11.0	525
40-44	84.0	66.3	75.2	58.4	10.4	336
45-49	75.4	61.4	74.6	49.8	13.8	335
Employment (past 12 months)						
Not employed	71.3	60.5	67.9	54.4	24.9	415
Employed for cash	82.1	69.0	76.2	58.9	10.3	837
Employed, not for cash	73.4	55.1	69.9	48.2	19.5	1,680
Marital status						
Never married	68.6	55.8	64.3	48.4	25.1	1,085
Married or living together	79.3	61.5	75.5	53.5	13.3	1,767
Divorced/separated/widowed	85.2	70.6	75.9	65.5	13.1	92
Number of living children						
0	69.0	54.8	64.0	47.6	24.9	1,137
1-2	78.8	60.9	74.6	52.7	14.3	715
3-4	80.7	61.9	76.1	54.3	12.4	551
5+	79.9	66.2	77.9	57.9	12.1	541
Residence						
Urban	80.6	67.6	76.6	60.7	14.3	1,123
Rural	72.5	54.8	68.2	46.6	19.8	1,822
Region						
Eastern	86.4	52.6	80.9	46.5	7.7	557
Northern	68.1	57.5	64.8	50.9	26.3	1,131
Southern	67.4	52.6	63.2	41.6	20.6	617
Western	87.2	76.7	82.7	68.8	8.1	639
Education						
No education	73.6	55.6	68.4	47.7	18.9	1,426
Primary	65.5	49.2	64.0	40.8	25.3	414
Secondary or higher	81.9	69.0	78.0	61.8	13.2	1,104
Wealth quintile						
Lowest	66.4	45.7	62.1	36.6	23.6	558
Second	75.9	58.2	69.3	50.9	17.6	520
Middle	74.5	58.1	70.6	48.8	17.3	530
Fourth	76.4	64.7	75.0	58.2	17.3	597
Highest	82.3	68.5	77.6	61.7	13.8	739
Total 15-49	75.6	59.7	71.4	52.0	17.7	2,944
50-59	80.2	60.4	74.3	54.6	13.2	336
Total 15-59	76.0	59.8	71.7	52.3	17.2	3,280

Note: Total includes 13 men with information missing on employment in the past 12 months.

Overall, around one-third of women (34 percent) and half of men (52 percent) agree with all of the specified reasons for a woman to refuse sexual intercourse with her husband. One in four women (25 percent) and one in six men (18 percent) agree with none of the specified reasons. The most accepted reason for refusing to have sex, among both women and men, is if the wife knows her husband has a sexually transmitted disease (62 percent and 76 percent, respectively). For both women and men, the least acceptable reason for a wife to refuse sex is when she knows that her husband has intercourse with other women (50 percent of women and 60 percent of men).

Among women, those who are employed but not for cash (30 percent), women who are currently in union (32 percent), and those with five or more children (31 percent) are least likely to think that all of the reasons for refusing sex are acceptable. Urban women (42 percent) and those living in the Western (43 percent) and Southern (40 percent) regions are more likely than other women to agree with all the specified reasons. The proportion of women who think that all of the reasons for refusing sex are acceptable is highest among those with secondary or higher education (47 percent) and women in the highest wealth quintile (45 percent).

Among men, those in the youngest (15-19 years) age group are somewhat less likely than other men to agree with all of the reasons for a woman to refuse having sexual intercourse with her husband. Similar to women, men employed not for cash are less likely than other men to agree with all of the reasons. Previously married men, those with five or more children, men with secondary or higher education and men in the highest wealth quintile are more likely to agree with all the reasons that justify a woman to refuse having sexual intercourse with her husband. Finally, urban men and those living in the Western Region are considerably more likely to agree with the specified reasons for a woman to refuse sex with her husband than rural men and those living in other regions.

Women's empowerment is closely associated with the support she receives from her husband and family members. The 2008 SLDHS explored men's attitude toward a husband's rights when his wife refuses to have sexual intercourse. Men were asked whether, when a wife refuses to have sexual intercourse with him, a husband has a right to get angry and reprimand her, refuse her financial support, use force to have sex, and have sex with another woman. Table 15.7.3 indicates that the majority of men tend to be supportive of women's interests. Nationally, only 5 percent of men age 15-49 agree with all of the specified husband's behaviours. Overall, men age 15-24, men who are employed but do not earn cash, never-married men, those with no children, men with primary or no education, and men in the lowest wealth quintile are more likely than other men to agree with all of the specified behaviours that a man has a right to exhibit if his wife refuses to have sex with him. Further, more men in rural areas (6 percent) and those living in the Northern Region (7 percent) agree with all the specified behaviours than men in urban areas or those in other regions.

Table 15.7.3 Men's attitudes 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 behaviours when his wife refuses to have sex with him when he wants her to, by background characteristics, Sierra Leone 2008

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 behaviours	Percentage who agree with none of the specified behaviours	Number of men
	Get angry and reprimand her	Refuse her financial support	Use force to have sex	Have sex with another woman			
Age							
15-19	31.6	19.5	11.7	27.4	6.6	55.6	526
20-24	30.1	18.5	13.0	25.9	6.7	55.8	403
25-29	35.5	21.0	10.3	32.3	4.1	46.5	446
30-34	35.3	16.1	9.7	26.8	3.5	49.4	373
35-39	38.8	19.5	12.5	26.5	4.3	45.1	525
40-44	37.0	16.8	11.8	21.9	3.3	51.5	336
45-49	39.7	18.9	12.8	19.9	3.3	49.7	335
Employment (past 12 months)							
Not employed	24.2	11.2	5.6	18.6	3.8	67.6	415
Employed for cash	30.3	18.6	9.2	22.0	3.7	57.5	837
Employed, not for cash	40.6	20.9	14.5	30.2	5.4	42.7	1,680
Marital status							
Never married	31.9	20.3	11.8	28.1	6.6	54.5	1,085
Married or living together	37.0	17.3	11.8	24.7	3.5	48.5	1,767
Divorced/separated/widowed	43.4	29.4	9.5	33.8	4.4	40.0	92
Number of living children							
0	32.2	21.1	12.6	27.7	6.7	54.1	1,137
1-2	35.7	16.1	9.0	25.4	3.5	49.7	715
3-4	35.2	16.7	9.4	23.7	2.6	50.6	551
5+	41.2	19.5	15.7	26.7	4.1	43.5	541
Residence							
Urban	25.6	12.7	6.5	19.5	2.7	62.1	1,123
Rural	41.3	22.5	14.9	30.4	5.9	43.3	1,822
Region							
Eastern	53.0	19.9	10.0	22.1	4.7	39.4	557
Northern	36.2	24.5	16.9	29.8	7.1	44.7	1,131
Southern	35.7	18.0	12.9	34.8	4.3	49.3	617
Western	17.8	8.4	2.8	15.2	0.6	71.3	639
Education							
No education	40.6	22.6	14.7	28.4	5.6	44.5	1,426
Primary	32.3	20.2	12.6	28.8	5.7	50.2	414
Secondary or higher	29.5	13.3	7.4	22.4	3.1	58.2	1,104
Wealth quintile							
Lowest	39.4	23.8	16.9	30.3	6.9	44.9	558
Second	45.0	22.5	14.3	31.4	5.1	38.2	520
Middle	41.9	21.8	14.1	28.2	4.4	42.8	530
Fourth	32.1	17.2	10.6	27.6	4.9	52.1	597
Highest	23.2	11.5	5.0	17.0	2.7	67.4	739
Total 15-49	35.3	18.8	11.7	26.2	4.7	50.4	2,944
50-59	40.2	20.0	16.5	21.6	6.8	50.4	336
Total 15-59	35.8	18.9	12.2	25.7	4.9	50.4	3,280

Note: Total includes 13 men with information missing on employment in the past 12 months.

15.6 WOMEN'S EMPOWERMENT INDICATORS

The three sets of empowerment indicators, namely women's participation in making household decisions, their attitudes towards wife beating, and their attitudes towards a wife's right to refuse sexual intercourse with her husband, can be summarized into three separate indices. All three indices are based on women's responses.

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/partner. 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 index, which ranges in value from 0 to 5, is the total number of reasons (see Table 15.6.1 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 index, which ranges in value from 0 to 3, is the number of circumstances (see Table 15.7.1 for the list of the circumstances) in which the respondent feels that a woman is justified in refusing sexual intercourse with her husband or partner. 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. It gives the percentage of married women age 15-49 who participate in all decision-making, the percentage of women who disagree with all the specified reasons for justifying wife beating, and the percentage of women who agree with all the specified reasons for a wife's refusing to have intercourse with her husband, by the value on each of the indicators of women's empowerment. In general, the expectation is that women who participate in making household decisions are more likely to have gender-egalitarian beliefs.

The findings indicate that women who participate in three or four of the specified household decisions more often tend to justify their right to refuse sexual intercourse with their husband for all reasons (37 percent) or to disagree with all the reasons for justifying wife beating (34 percent). Similarly, women who do not support wife beating for any reason at all are most likely to participate in all the decision-making in the household (47 percent), although the relationship is not linear with regard to reasons for refusing sexual intercourse with their husband. At the other end of the spectrum, women who agree with all five reasons for wife beating are least likely to participate in all four of the specified decisions and least likely to agree with all reasons justifying refusing the husband sex.

The three empowerment indicators are not consistently related to each other. In particular, women's attitude toward refusing sexual intercourse with their husband and women's participation in decision-making, and their attitude toward wife beating do not bear the expected negative relationship. For example, women who agree with all three reasons for refusing the husband sex are just slightly more likely to participate in all four decisions (47 percent) than women who agree with none of the reasons refusing sexual intercourse with their husband (45 percent). Further, women who agree with all reasons justifying refusing the husband sex are slightly less likely to disagree with all the reasons for wife beating (40 percent) compared with women who agree with none of reasons for refusing sexual intercourse with their husband (45 percent).

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, Sierra Leone 2008					
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	28.4	23.4	1,479
1-2	na	na	24.9	31.2	1,298
3-4	na	na	34.4	37.1	2,748
Number of reasons for which wife beating is justified²					
0	47.2	1,690	na	38.5	2,611
1-2	40.0	1,066	na	35.5	1,430
3-4	36.5	1,538	na	38.7	1,907
5	33.1	1,232	na	20.1	1,425
Number of reasons given for refusing to have sexual intercourse with husband³					
0	45.4	1,382	44.6	na	1,835
1-2	31.0	2,372	26.3	na	3,001
3	46.9	1,771	39.6	na	2,538

¹ Restricted to currently married women. See Table 15.5.1 for the list of decisions.
na = Not applicable
² See Table 15.6.1 for the list of reasons.
³ See Table 15.7.1 for the list of reasons.

15.7 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A woman's desire and ability to control her fertility and her choice of contraceptive method are in part affected by her status in the household and her own sense of empowerment. A woman who feels that she is unable to control her life may be less likely to feel she can make and carry out decisions about her fertility. She may also feel the need to choose methods that are less obvious or which do not depend on her husband's cooperation. Table 15.9 shows the distribution of currently married women by contraceptive method use, according to the three empowerment indicators.

The data indicate that there is a positive relationship between use of contraception and participation in household decision-making. For example, current use of modern contraceptive methods rises from 5 percent among women who participate in none of the household decisions to 8 percent among women who participate in one or more household decisions. Also noteworthy is the finding that women who believe that wife beating is justified for all of the five specified reasons are least likely to use a method of contraception. A similar association is seen between contraceptive use and a woman's rights to refuse sexual intercourse with her husband. Women who agree with all three reasons for a woman to refuse intercourse with her husband are more likely to use any contraception and any modern contraception than other women.

Table 15.9 Current use of contraception by women's empowerment

Among currently married women age 15-49, percentage using any method of contraception, percentage using any modern method, and percent distribution by contraceptive method currently used, according to indicators of women's empowerment, Sierra Leone 2008

Empowerment indicator	Any method	Any modern method	Modern methods			Any traditional method	Not using any method	Total	Number of women
			Female sterilization	Temporary modern female methods ¹	Male condom				
Number of decisions in which women participate²									
0	5.4	4.8	0.1	4.1	0.7	0.7	94.6	100.0	1,479
1-2	7.0	5.6	0.0	5.0	0.6	1.5	93.0	100.0	1,298
3-4	10.2	8.4	0.0	7.8	0.6	1.9	89.8	100.0	2,748
Number of reasons for which wife beating is justified³									
0	10.4	9.0	0.0	7.9	1.1	1.4	89.6	100.0	1,690
1-2	7.8	6.2	0.1	5.9	0.2	1.6	92.2	100.0	1,066
3-4	7.7	6.0	0.0	5.3	0.7	1.7	92.3	100.0	1,538
5	6.2	5.0	0.0	4.9	0.0	1.2	93.8	100.0	1,232
Number of reasons given for refusing to have sexual intercourse with husband⁴									
0	5.2	4.2	0.0	3.8	0.4	0.9	94.8	100.0	1,382
1-2	7.5	5.8	0.0	5.3	0.4	1.8	92.5	100.0	2,372
3	11.5	10.0	0.0	9.1	1.0	1.4	88.5	100.0	1,771
Total	8.2	6.7	0.0	6.1	0.6	1.5	91.8	100.0	5,525

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 amenorrhoea 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

15.8 REPRODUCTIVE HEALTH CARE BY WOMEN'S STATUS

Table 15.10 shows women's use of antenatal, delivery, and postnatal care services by the three indicators of women's 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 their ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood.

The data indicate that there is a correlation between women's status, as measured by the number of reasons wife beating is justified, and utilization of health services. Women who believe that wife beating is justified for five reasons are less likely to receive maternity care services than women who believe that wife beating is justified for 1-2 reasons or not at all. Similarly, utilization of maternal and reproductive health services is highest among women who agree with all 3 reasons for a woman to refuse sexual intercourse with her husband than women who agree with none or 1-2 reasons. The relationship between number of household decisions in which a woman participates and utilization of health care is less clear.

Table 15.10 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, Sierra Leone 2008

Empowerment indicator	Received antenatal care from health personnel	Received delivery assistance from health personnel	Received postnatal care from health personnel in the two days following delivery ¹	Number of women with a child born in the past five years
Number of decisions in which women participate²				
0	82.2	44.8	35.6	936
1-2	86.5	40.6	36.0	896
3-4	88.6	42.4	36.1	1,760
Number of reasons for which wife beating is justified³				
0	87.9	51.3	42.2	1,284
1-2	88.4	46.5	34.4	776
3-4	86.0	41.3	38.9	1,142
5	85.4	36.3	31.7	901
Number of reasons given for refusing to have sexual intercourse with husband⁴				
0	83.2	37.0	26.8	996
1-2	86.4	45.9	39.3	1,735
3	90.2	47.6	42.9	1,372
Total	86.9	44.3	37.5	4,103

Note: 'Health personnel' includes doctor, nurse, midwife, or MCH aid.

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.

Female Circumcision (FC), also known as Female Genital Cutting (FGC) or Female Genital Mutilation (FGM), is prevalent in Sierra Leone and many other countries in East and West Africa. Nearly universal in a few countries, it is practiced by various groups in at least 25 African countries, in Yemen, and in some immigrant African populations in Europe and North America. In a few societies, the procedure is routinely carried out when a girl is a few weeks or a few months old (e.g. Eritrea, Yemen), while in most others, it occurs later in childhood or adolescence. In the case of the latter, FGC may be part of a ritual initiation into womanhood that includes a period of seclusion and education about the rights and duties of a wife. In many countries, however, the ritual or ceremonial elements that accompany female circumcision are decreasing in importance.

In Sierra Leone, female circumcision is part of the initiation rites into the Bondo or Sande secret societies for women. Girls are taken to the bush where they are taught local customs, sex education, feminine hygiene, housekeeping, and childrearing skills. As part of this rite of passage to womanhood, girls undergo FGC, which in Sierra Leone usually consists of removing all or part of the clitoris.

The 2008 Sierra Leone Demographic and Health Survey (SLDHS) collected data on the practice of female circumcision in Sierra Leone. The Women's Questionnaire included a series of questions on FGC; fewer questions on the topic were included in the Men's Questionnaire.

All female respondents were asked whether they had heard of the Bondo, Sande, or other secret societies, or female circumcision. Women who had heard of a secret society or female circumcision were asked whether they had been initiated/circumcised. Those who had been circumcised were asked what age they were at the time of circumcision, what type of circumcision was performed, who performed the operation, and a series of questions about their opinions regarding the practice.

Respondents were asked whether they had a daughter who was circumcised and, if so, the type of circumcision and age at circumcision of the daughter. Both women and men were asked about the perceived benefits of girls undergoing female circumcision and the whether they thought that the practice was required by their religion. The responses were aggregated by background characteristics.

In this chapter, topics discussed include knowledge, prevalence, and type of circumcision; age at circumcision; person who performed the circumcision; and attitudes towards the practice.

16.1 KNOWLEDGE AND PREVALENCE OF FEMALE CIRCUMCISION

Knowledge of female circumcision in Sierra Leone is universally high (Table 6.1). Almost all (99 percent) of Sierra Leonean women age 15-49 and 96 percent of men age 15-49 have heard of the practice. There are no substantial variations in knowledge of FGC by residence, region, education, and wealth status. The youngest cohort of men (age 15-19) showed a slightly lower level of knowledge of female circumcision (92 percent).

Table 16.1 also shows the prevalence of female circumcision by background characteristics. In general, the differentials are similar to those for knowledge of female circumcision. The prevalence of female circumcision is universally high (95-96 percent) among women age 25-49. Prevalence is lower among women in the younger cohorts: 89 percent for women age 20-24 and 76 percent for women age 15-19. Prevalence is highest in the Northern Region (97 percent) and lowest in the Western Region (80 percent); it is higher in rural areas (95 percent) than in urban areas (85 percent). Women with the most education and those in wealthier households are less likely to be circumcised than those with less education and those who live in poorer households.

Table 16.1 Knowledge and prevalence of female circumcision

Percentage of men and women who have heard of female circumcision, percentage of women circumcised, and the percent distribution of circumcised women by type of circumcision, according to background characteristics, Sierra Leone 2008

Background characteristic	Percentage of men who have heard of female circumcision	Number of men	Percentage of women who have heard of female circumcision	Percentage of women circumcised	Number of women	Type of circumcision				Number of women
						Cut, flesh removed	Nicked, no flesh removed	Genital area sewn closed	Not determined	
Age										
15-19	91.2	526	98.2	75.5	1,198	81.1	2.4	2.2	14.3	904
20-24	96.7	403	99.1	89.4	1,186	82.3	1.9	2.3	13.5	1,060
25-29	97.1	446	99.0	95.2	1,643	83.2	2.6	2.1	12.1	1,565
30-34	97.1	373	99.0	94.9	1,043	81.6	3.8	3.0	11.6	990
35-39	97.2	525	99.1	96.4	1,131	81.6	3.3	3.2	12.0	1,091
40-44	98.7	336	99.7	96.1	652	81.2	4.5	2.5	11.7	627
45-49	93.7	335	98.0	95.9	520	82.3	5.6	3.5	8.6	498
Residence										
Urban	95.9	1,123	99.1	84.5	2,655	83.6	0.9	1.7	13.8	2,244
Rural	95.8	1,822	98.8	95.2	4,719	81.3	4.3	3.0	11.4	4,491
Region										
Eastern	95.8	557	98.7	92.1	1,325	89.6	0.9	3.3	6.2	1,220
Northern	95.4	1,131	99.0	97.0	3,001	80.3	0.3	2.2	17.2	2,910
Southern	95.2	617	98.8	91.2	1,542	77.8	12.7	3.5	5.9	1,406
Western	97.0	639	98.9	79.6	1,506	83.4	1.2	1.8	13.7	1,199
Education										
No education	95.8	1,426	98.9	96.5	4,860	81.9	3.4	2.8	11.9	4,692
Primary	92.5	414	98.3	87.1	960	83.9	3.1	2.3	10.8	836
Secondary or higher	97.1	1,104	99.2	77.7	1,554	81.2	2.3	2.1	14.5	1,207
Ethnic group										
Temne	97.1	1,060	99.3	95.2	2,564	81.9	1.2	2.1	14.8	2,440
Mende	94.2	901	98.7	90.0	2,331	83.1	6.2	3.5	7.1	2,098
Other	95.8	984	98.7	88.6	2,479	81.1	2.4	2.3	14.2	2,197
Religion										
Christian	97.4	642	98.8	79.9	1,625	83.2	3.0	2.4	11.4	1,299
Muslim	95.3	2,289	98.9	94.6	5,665	81.7	3.1	2.7	12.5	5,358
Other	*	14	99.7	93.7	84	86.3	7.6	0.0	6.1	79
Wealth quintile										
Lowest	95.8	558	98.9	95.4	1,382	82.0	6.6	2.7	8.7	1,318
Second	93.2	520	98.6	95.1	1,368	83.8	3.6	3.1	9.5	1,302
Middle	98.0	530	98.6	95.3	1,428	81.9	1.8	4.3	12.0	1,361
Fourth	94.5	597	99.3	92.2	1,472	80.5	2.8	1.5	15.2	1,357
Highest	97.1	739	99.0	81.1	1,723	82.0	1.2	1.4	15.4	1,397
Total 15-49	95.8	2,944	98.9	91.3	7,374	82.0	3.2	2.6	12.2	6,735
50-59	94.8	336	na	na	na	na	na	na	na	na
Total 15-59	95.7	3,280	na	na	na	na	na	na	na	na

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

16.2 FLESH REMOVAL AND INFIBULATION

Women who reported that they had been circumcised were asked questions aimed at determining the type of circumcision received. Table 16.1 shows that most women (82 percent) reported that their circumcision involved both cutting and removal of flesh; 3 percent said they were nicked but no flesh was removed, and 3 percent said that their vagina was sewn closed during circumcision (infibulation). Infibulation is the most radical procedure reported. The differentials for infibulation do not vary much by region or other background characteristics. Type of circumcision could not be determined for 12 percent of the women who did not know what had been done to them during circumcision.

16.3 AGE AT CIRCUMCISION

The percent distribution of women by age at circumcision is presented in Table 16.2. One of the possible answers to the question about age at circumcision was ‘during infancy,’ which most likely refers to girls less than two years old (non-numerical answer). Twenty-two percent of women said they had been cut during infancy, and another 1 percent fit into the category of less than four years old. Therefore, 23 percent of women in Sierra Leone were circumcised before their fifth birthday. Circumcision is most common at age 10-14 (36 percent); 19 percent of women were age 15 or older when circumcised; and 9 percent of women did not know their age at the time of circumcision.

Background characteristic	Age at circumcision in years							Total	Number of women
	During infancy	0-1	2-4	5-9	10-14	15+	Don't know		
Age									
15-19	19.6	0.2	1.2	13.6	40.7	19.1	5.6	100.0	904
20-24	24.1	0.2	1.0	15.4	31.6	20.2	7.6	100.0	1,060
25-29	22.9	0.0	1.2	15.6	33.0	17.7	9.7	100.0	1,565
30-34	20.8	0.1	0.7	11.9	37.8	17.9	10.8	100.0	990
35-39	21.2	0.0	0.7	12.5	38.4	18.1	9.1	100.0	1,091
40-44	24.1	0.0	0.6	8.3	33.6	23.0	10.4	100.0	627
45-49	23.4	0.2	0.3	8.7	35.0	20.2	12.2	100.0	498
Residence									
Urban	16.9	0.1	1.5	15.7	34.5	24.2	7.0	100.0	2,244
Rural	24.9	0.1	0.6	11.7	36.1	16.5	10.2	100.0	4,491
Region									
Eastern	16.7	0.1	0.3	14.1	40.7	24.8	3.3	100.0	1,220
Northern	29.0	0.1	0.9	14.1	34.2	9.5	12.1	100.0	2,910
Southern	17.6	0.1	0.3	7.1	35.9	28.2	10.9	100.0	1,406
Western	16.7	0.2	2.0	16.3	33.3	25.6	5.9	100.0	1,199
Education									
No education	24.8	0.1	0.8	12.3	35.7	15.6	10.7	100.0	4,692
Primary	20.0	0.1	0.9	13.1	34.9	24.3	6.7	100.0	836
Secondary or higher	13.7	0.2	1.0	15.8	35.5	28.9	4.8	100.0	1,207
Ethnic group									
Temne	29.3	0.0	1.0	14.3	32.7	12.7	10.0	100.0	2,440
Mende	16.6	0.0	0.3	8.0	35.8	30.9	8.3	100.0	2,098
Other	19.7	0.3	1.3	16.4	38.6	14.8	9.0	100.0	2,197
Religion									
Christian	16.8	0.1	0.5	13.0	37.2	24.9	7.5	100.0	1,299
Muslim	23.4	0.1	1.0	13.1	35.2	17.7	9.5	100.0	5,358
Other	28.5	0.0	0.0	12.7	33.0	11.9	13.8	100.0	79
Wealth quintile									
Lowest	23.1	0.1	0.3	9.8	37.9	19.3	9.5	100.0	1,318
Second	24.4	0.1	0.8	12.2	34.8	15.8	12.0	100.0	1,302
Middle	25.3	0.1	1.1	14.0	34.0	14.0	11.5	100.0	1,361
Fourth	22.7	0.1	0.7	12.5	37.4	18.6	8.0	100.0	1,357
Highest	15.7	0.2	1.5	16.5	33.9	27.2	5.0	100.0	1,397
Total	22.2	0.1	0.9	13.0	35.6	19.1	9.1	100.0	6,735

There are marked variations in the proportions of women circumcised in infancy by residence and ethnicity. For instance, 29 percent of the Temne were circumcised during infancy, compared with 17 percent of the Mende and 20 percent of those in other ethnic groups. Similarly, among the Mende, 31 percent of girls were cut at age 15 or above, while among the Temne, that figure is 13 percent.

16.4 PERSON PERFORMING CIRCUMCISION

Table 16.3 shows that almost all of the women were circumcised by traditional circumcisers (95 percent), with no difference by the type of circumcision. It should be noted that only a negligible proportion of circumcisions were performed by a trained health professional (0.3 percent). Four percent of women reported that they did not know who performed their circumcision. This lack of knowledge is probably due to the young age at which many girls are circumcised; it is likely they were too young to remember the details of the operation.

Person performing circumcision	Type of circumcision				Total
	Cut, flesh removed	Genital area nicked	Genital area sewn closed	Not determined	
Health professional	0.3	0.0	0.8	0.0	0.3
Doctor	0.1	0.0	0.8	0.0	0.1
Trained nurse/midwife	0.3	0.0	0.0	0.0	0.2
Traditional practitioner	96.9	97.9	97.1	85.2	95.5
Traditional 'circumciser'	96.2	96.8	95.8	84.7	94.8
Traditional birth attendant	0.5	1.1	1.3	0.2	0.5
Other traditional	0.2	0.0	0.0	0.3	0.2
Don't know/missing	2.7	2.1	2.1	14.7	4.2
Total	100.0	100.0	100.0	100.0	100.0
Number of women	5,525	213	175	822	6,735

16.5 CIRCUMCISION OF DAUGHTERS

Women interviewed in the 2008 SLDHS who had living daughters were asked if any of their daughters had been circumcised, and if not, whether they intended to have a daughter circumcised. Table 16.4 shows that about one-third (33 percent) of women have at least one circumcised daughter and more than half (52 percent) intend to have a daughter circumcised. Just 9 percent of women do not intend to have a daughter circumcised in the future. The proportion of women who have at least one daughter circumcised increases with age because daughters of older women are more likely to have reached the age considered appropriate for circumcision. The proportion of mothers with at least one daughter circumcised varies by residence and ethnicity: women in rural areas, those in the Northern Region, and the Temne are the most likely to have daughters circumcised. Women with secondary or higher education and those in the highest wealth quintile are least likely to have circumcised daughters or to intend to have their daughters circumcised, compared with women with no education and those in the lower wealth quintiles.

Table 6.4 shows wide variation in the proportion of women (with daughters) who say they do not intend to have their daughters circumcised, although they remain in the minority. Twenty-seven percent of Christians, compared with 4 percent of Muslims, do not intend to have their daughters circumcised, and 20 percent of urban women, compared with 4 percent of rural women, do not plan to have their daughters circumcised. By region, 27 percent of women in the Western Region, compared with 4 percent in the Northern Region, do not intend to have their daughters circumcised. Additionally, women's education is a strong indicator of intention: 34 percent of women with secondary or higher education do not want their daughters to be circumcised, compared with 4 percent of women with no education. Likewise, 27 percent of women in households in the highest wealth quintile, compared with 3 percent of those in the lowest wealth quintile, do not intend to have their daughters circumcised.

Table 16.4 Practice of female circumcision among respondent's daughters							
Percent distribution of women with daughters by whether they have at least one daughter circumcised or by whether or not they intend to have daughter(s) circumcised, according to circumcision status of mother and background characteristics, Sierra Leone 2008							
Background characteristic	Among women with at least one daughter, percentage:						Number of women with daughter(s)
	With at least one daughter circumcised	Who intend to have daughter(s) circumcised	Who do not intend to have daughter(s) circumcised	Not determined	Who do not know circumcision	Total	
Circumcision status of woman							
Never heard of circumcision	(0.0)	(0.0)	(0.0)	(0.0)	100.0	100.0	40
Circumcised	33.7	54.0	7.0	5.3	0.0	100.0	4,402
Not circumcised	5.6	14.7	66.1	13.7	0.0	100.0	148
Age							
15-19	0.4	76.5	10.9	10.4	1.8	100.0	155
20-24	6.8	73.3	12.4	6.7	0.8	100.0	549
25-29	12.4	71.2	8.6	7.0	0.8	100.0	1,107
30-34	26.6	54.1	11.8	6.7	0.9	100.0	814
35-39	44.2	43.7	7.7	3.7	0.8	100.0	939
40-44	60.7	28.1	7.3	3.4	0.4	100.0	575
45-49	74.6	16.8	3.7	3.2	1.7	100.0	451
Residence							
Urban	28.5	42.6	20.3	7.9	0.6	100.0	1,405
Rural	34.3	56.5	3.8	4.5	1.0	100.0	3,185
Region							
Eastern	26.0	59.6	8.9	4.2	1.3	100.0	847
Northern	40.1	52.0	3.8	3.3	0.9	100.0	2,002
Southern	27.0	60.0	4.5	8.0	0.6	100.0	949
Western	26.9	35.6	27.0	9.6	0.8	100.0	793
Education							
No education	35.5	54.5	4.2	5.0	0.8	100.0	3,448
Primary	22.3	57.9	10.6	7.4	1.8	100.0	521
Secondary or higher	24.6	34.7	33.6	6.8	0.3	100.0	622
Ethnic group							
Temne	39.7	50.0	5.8	4.2	0.4	100.0	1,667
Mende	25.6	60.5	6.9	6.2	0.8	100.0	1,439
Other	31.2	46.7	14.2	6.4	1.5	100.0	1,484
Religion							
Christian	20.8	43.5	27.2	7.4	1.1	100.0	917
Muslim	35.6	54.3	4.3	5.0	0.8	100.0	3,628
Other	(22.9)	(66.1)	(1.8)	(8.7)	(0.5)	100.0	45
Wealth quintile							
Lowest	30.4	59.2	3.3	5.6	1.5	100.0	920
Second	34.3	57.0	4.2	3.6	0.9	100.0	964
Middle	34.8	54.6	4.1	5.9	0.7	100.0	942
Fourth	34.6	51.3	7.7	5.8	0.6	100.0	898
Highest	28.1	37.9	26.5	6.9	0.6	100.0	867
Total	32.5	52.2	8.9	5.5	0.9	100.0	4,590

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

Table 16.5 shows the percent distribution of most recently circumcised daughters by type of circumcision. The results show that circumcision involving the cutting and removal of flesh is the most common practice in Sierra Leone, accounting for 78 percent of all circumcisions; 3 percent of circumcised daughters had no flesh removed, and 6 percent were infibulated. Infibulation, while not prevalent, occurs most frequently in the Southern Region (8 percent) and least frequently in the Western Region (3 percent). A total of 13 percent of mothers did not know what had been done to their daughters.

Background characteristic	Type of circumcision				Total	Number of daughters circumcised
	Flesh removed	Genital area nicked	Genital area sewn closed	Don't know		
Circumcision status of mother						
Flesh removed	92.3	0.4	4.4	3.0	100.0	1,197
Genital area nicked	10.3	78.7	0.1	10.9	100.0	50
Genital area sewn closed	(32.3)	(0.0)	(59.0)	(8.7)	100.0	57
Don't know	19.1	0.7	0.9	79.3	100.0	187
Age						
15-24	(71.7)	(0.0)	(14.2)	(14.2)	100.0	38
25-29	76.8	0.8	10.1	12.3	100.0	137
30-34	75.1	2.7	6.8	15.4	100.0	216
35-39	78.4	1.9	5.1	14.6	100.0	415
40-44	77.8	3.2	5.9	13.1	100.0	349
45-49	81.1	5.7	3.6	9.5	100.0	337
Residence						
Urban	83.0	0.5	3.7	12.7	100.0	401
Rural	76.2	4.0	6.7	13.1	100.0	1,092
Region						
Eastern	86.7	1.8	6.7	4.8	100.0	220
Northern	78.7	0.1	5.8	15.4	100.0	803
Southern	67.3	15.0	8.3	9.4	100.0	256
Western	79.5	1.0	2.7	16.8	100.0	213
Education						
No education	78.2	3.2	5.8	12.8	100.0	1,223
Primary	82.1	1.6	3.3	13.0	100.0	116
Secondary or higher	73.8	2.5	8.7	15.0	100.0	153
Ethnic group						
Temne	80.0	0.7	6.0	13.3	100.0	661
Mende	76.2	7.5	8.3	8.0	100.0	368
Other	76.7	2.8	3.8	16.7	100.0	463
Religion						
Christian	76.2	5.7	5.7	12.5	100.0	190
Muslim	78.5	2.6	5.9	13.0	100.0	1,292
Other	*	*	*	*	100.0	10
Wealth quintile						
Lowest	81.1	5.2	5.2	8.4	100.0	280
Second	75.0	5.5	8.2	11.3	100.0	331
Middle	77.5	1.7	7.0	13.7	100.0	327
Fourth	79.0	1.8	3.3	15.9	100.0	311
Highest	78.2	0.5	5.3	16.0	100.0	244
Total	78.0	3.0	5.9	13.0	100.0	1,492

Table 16.6 shows that among most recently circumcised daughters, 19 percent were circumcised during infancy and 9 percent were circumcised between the ages of 1 and 4 years. Thus, 28 percent of daughters were cut before the age of five. The majority (67 percent) were circumcised after their fifth birthday, with 58 percent circumcised between the ages of 5 and 14. Circumcision is rarely performed by a trained health professional (0.4 percent). Traditional circumcisers carried out 97 percent of circumcisions (data not shown).

Table 16.6 Daughter's age at circumcision
Percent distribution of most recently circumcised daughters by age of daughter at the time of circumcision, according to background characteristics, Sierra Leone 2008

Background characteristic	Age at circumcision in years						Not determined	Total	Number of daughters circumcised
	During infancy	0-1	2-4	5-9	10-14	15+			
Age of respondent									
15-24	(38.7)	(9.0)	(14.2)	(27.0)	(0.0)	(0.0)	(11.0)	100.0	38
25-29	18.5	4.2	16.9	44.4	8.2	1.1	6.7	100.0	137
30-34	15.0	3.8	13.6	36.2	20.0	1.6	9.8	100.0	216
35-39	21.0	1.1	8.6	28.3	27.0	9.0	5.0	100.0	415
40-44	20.4	0.0	2.9	26.7	29.8	14.4	5.8	100.0	349
45-49	13.7	0.4	1.7	33.5	34.9	12.5	3.4	100.0	337
Residence									
Urban	13.1	1.3	7.1	32.7	25.9	12.4	7.4	100.0	401
Rural	20.6	1.7	7.4	31.3	26.0	7.8	5.3	100.0	1,092
Region									
Eastern	10.7	1.3	3.9	28.9	37.7	14.3	3.2	100.0	220
Northern	24.4	2.1	7.2	34.8	20.5	4.5	6.5	100.0	803
Southern	11.3	0.0	8.8	26.1	33.5	16.7	3.6	100.0	256
Western	13.5	1.5	9.8	29.5	25.6	11.5	8.7	100.0	213
Education									
No education	20.7	1.3	7.5	30.7	25.6	7.9	6.2	100.0	1,223
Primary	9.0	0.9	5.2	39.2	25.9	15.6	4.2	100.0	116
Secondary or higher	8.6	4.0	7.6	33.4	29.6	12.7	4.1	100.0	153
Ethnic group									
Temne	25.2	1.5	8.9	33.8	18.2	5.6	6.8	100.0	661
Mende	11.9	0.7	6.0	23.3	36.8	17.6	3.7	100.0	368
Other	14.4	2.3	6.1	35.3	28.6	7.1	6.2	100.0	463
Religion									
Christian	12.0	3.4	4.1	29.8	30.8	16.2	3.7	100.0	190
Muslim	19.4	1.2	7.8	32.1	25.4	7.9	6.2	100.0	1,292
Other	*	*	*	*	*	*	*	100.0	10
Wealth quintile									
Lowest	22.7	0.5	7.2	31.5	23.3	10.2	4.7	100.0	280
Second	21.9	3.4	9.2	25.5	25.6	8.8	5.7	100.0	331
Middle	19.2	0.5	4.5	37.1	25.4	6.0	7.2	100.0	327
Fourth	17.9	1.4	9.8	31.5	29.5	6.7	3.3	100.0	311
Highest	9.3	1.9	5.7	33.3	26.0	15.0	8.8	100.0	244
Total	18.6	1.6	7.3	31.7	26.0	9.0	5.8	100.0	1,492

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

16.6 PERCEIVED BENEFITS OF UNDERGOING FEMALE CIRCUMCISION

In the 2008 SLDHS, women and men were asked about the benefits to girls themselves if they undergo circumcision. Respondents were able to cite more than one benefit if they wished. Social acceptance was the most common response given; it was cited by 55 percent of women and 40 percent of men in the survey (Tables 16.7.1 and 16.7.2). Cleanliness/hygiene was given as a benefit of female circumcision by 22 percent of women and 23 percent of men. An additional 19 percent of women and 17 percent of men said that a circumcised female would have better marriage prospects. On the other hand, more than one-third of men age 15-49 (37 percent) and 25 percent of women reported that there were no benefits from female circumcision.

Table 16.7.1 Perceived benefits of female circumcision: Women

Among women who have heard of female circumcision, percentage who report specific benefits of the practice for girls, by circumcision status of mother and background characteristics, Sierra Leone 2008

Background characteristic	Perceived benefits of female circumcision								Number of women who have heard of female circumcision
	No benefits	Cleanliness/hygiene	Social acceptance	Better marriage prospects	Preserve virginity	More sexual pleasure for the man	Religious approval	Other	
Type of circumcision of the mother									
Cut, flesh removed	23.2	22.7	57.7	18.8	8.7	1.5	4.6	12.8	5,525
Genital area nicked	13.9	10.3	72.0	7.2	5.0	0.0	0.1	9.8	213
Genital area sewn closed	22.1	32.0	63.1	39.0	19.1	2.2	3.6	2.1	175
Type not known	35.2	18.7	41.9	17.3	6.7	0.7	5.1	17.2	1,380
Age									
15-19	35.2	19.1	44.5	12.7	7.3	0.8	3.9	11.7	1,176
20-24	30.7	20.2	50.1	18.3	6.7	1.9	4.0	12.1	1,176
25-29	23.4	20.6	58.7	18.8	8.4	1.2	4.3	13.2	1,627
30-34	25.8	22.5	55.3	18.1	8.4	0.8	5.5	13.2	1,033
35-39	19.4	24.3	60.3	21.5	10.1	1.7	4.4	14.1	1,121
40-44	19.2	24.9	60.5	21.5	11.5	1.2	5.7	13.4	650
45-49	14.3	24.3	63.4	24.1	8.0	1.3	4.9	17.9	509
Residence									
Urban	41.0	17.0	38.9	7.9	6.9	0.6	2.7	13.0	2,632
Rural	16.3	24.5	64.5	24.7	9.3	1.6	5.6	13.4	4,660
Region									
Eastern	26.8	23.6	57.4	22.1	11.4	1.0	9.2	1.7	1,307
Northern	15.6	20.6	65.6	22.0	6.5	0.9	2.4	18.4	2,973
Southern	20.1	27.4	55.8	24.6	12.2	3.0	7.3	13.5	1,523
Western	48.0	16.8	32.3	2.9	5.9	0.5	1.8	13.0	1,490
Education									
No education	16.5	24.6	63.8	23.3	9.3	1.5	5.2	13.7	4,808
Primary	32.7	18.3	49.2	14.0	7.1	0.8	4.8	12.7	943
Secondary or higher	47.8	15.0	32.2	7.0	6.6	0.9	2.4	12.3	1,541
Ethnic group									
Temne	22.8	17.3	59.7	16.0	3.5	0.5	1.5	17.4	2,546
Mende	21.7	29.5	56.0	25.7	13.4	2.5	9.5	9.7	2,301
Other	30.9	19.2	50.1	14.8	8.9	1.0	3.0	12.4	2,446
Religion									
Christian	42.6	15.5	41.1	12.0	7.4	1.3	1.3	11.5	1,606
Muslim	20.4	23.5	59.1	20.7	8.7	1.3	5.5	13.8	5,603
Other	14.4	28.1	73.7	13.0	8.5	0.0	0.8	13.6	84
Wealth quintile									
Lowest	18.6	28.2	65.4	24.4	9.6	2.1	7.0	10.5	1,367
Second	13.7	27.1	65.3	25.9	9.1	2.0	6.4	14.3	1,349
Middle	18.4	18.9	63.7	23.2	9.3	1.2	4.4	12.3	1,408
Fourth	25.0	21.2	53.2	16.5	7.0	0.8	3.7	15.7	1,462
Highest	45.3	15.4	34.1	6.4	7.6	0.5	1.9	13.4	1,707
Total	25.2	21.8	55.3	18.7	8.5	1.3	4.5	13.3	7,292

Maintaining virginity before marriage was cited as a benefit of female circumcision by only 9 percent of women and 8 percent of men. Interestingly, the maintenance of virginity to prevent premarital sex has always been the third or fourth most frequently cited benefit of female circumcision in many African countries, except for Niger (Yoder et al., 2004). It should be noted that just 4 percent of men cited greater sexual pleasure for the man as a perceived benefit of female circumcision, and among women this was the least cited benefit (1 percent). These low figures are not surprising, given that the question asks about the benefits for 'girls themselves.' Religious approval is cited by 5 percent of women, while among men this is the least cited benefit of female circumcision

Table 16.7.2 Perceived benefits of female circumcision: Men

Among men who have heard of female circumcision, percentage who report specific benefits of the practice for girls, by background characteristics, Sierra Leone 2008

Background characteristic	Perceived benefits of female circumcision								Number of men who have heard of female circumcision
	No benefits	Cleanliness/hygiene	Social acceptance	Better marriage prospects	Preserve virginity	More sexual pleasure for the man	Religious approval	Other	
Age									
15-19	37.2	26.5	38.6	14.4	2.7	1.8	1.8	15.8	480
20-24	40.2	21.4	34.8	18.2	8.6	3.1	2.2	11.4	389
25-29	35.5	22.7	40.6	17.1	9.0	4.0	2.2	13.5	433
30-34	34.7	19.8	40.3	17.6	8.6	4.0	3.7	13.2	362
35-39	36.3	21.1	42.4	18.9	9.4	4.7	2.4	11.6	511
40-44	36.3	24.0	43.9	16.9	9.0	4.5	2.3	11.0	332
45-49	35.9	27.8	43.1	19.0	5.6	3.0	2.2	10.3	314
Residence									
Urban	44.5	19.3	33.1	12.2	6.2	4.4	1.3	13.1	1,077
Rural	31.8	25.7	44.9	20.6	8.3	3.1	3.0	12.2	1,744
Region									
Eastern	37.4	9.3	40.9	12.7	6.3	3.8	1.7	15.6	533
Northern	28.3	38.1	52.2	26.5	8.6	1.6	2.1	7.2	1,080
Southern	38.1	19.5	39.3	17.5	8.3	5.7	4.5	14.7	588
Western	49.1	12.8	20.6	5.3	5.9	4.7	1.4	17.4	620
Education									
No education	31.7	26.0	45.4	19.9	7.6	3.4	2.7	11.8	1,365
Primary	34.9	17.4	40.2	17.3	10.0	4.8	2.8	14.5	383
Secondary or higher	43.5	21.8	34.1	14.2	6.5	3.3	1.8	12.8	1,073
Ethnic group									
Temne	34.9	34.6	41.6	20.0	7.1	1.7	1.9	11.0	1,029
Mende	39.3	16.9	36.4	14.7	7.8	5.1	3.9	17.3	849
Other	36.0	16.5	42.7	16.8	7.7	4.1	1.4	10.0	942
Religion									
Christian	44.6	16.7	35.9	13.7	7.4	4.3	0.9	12.3	625
Muslim	34.2	25.2	41.8	18.4	7.6	3.4	2.8	12.6	2,182
Other	*	*	*	*	*	*	*	*	14
Wealth quintile									
Lowest	31.7	21.6	41.3	21.9	7.8	5.3	4.0	13.7	534
Second	33.2	31.3	47.3	22.4	8.2	1.8	2.7	9.1	485
Middle	27.2	27.3	50.0	21.9	9.6	4.0	2.6	12.7	520
Fourth	41.4	22.3	39.0	13.3	5.9	2.1	1.7	11.7	564
Highest	45.6	16.8	29.3	10.5	6.7	4.2	1.2	14.6	717
Total	36.6	23.2	40.4	17.4	7.5	3.6	2.4	12.6	2,821
50-59	28.4	29.1	50.7	19.7	8.6	3.4	4.4	11.4	318
Total 15-59	35.8	23.8	41.5	17.6	7.6	3.5	2.6	12.5	3,139

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

(2 percent). It has been observed by some researchers that female circumcision is a cultural rather than a religious practice (Toubia, 1995; Caldwell et al., 2000). However, when asked directly, some Sierra Leonean respondents reported that religious approval has a part in circumcision (Tables 16.7.1 and 16.7.2).

Overall, younger respondents, those who are Christians, urban residents, and those living in the Western Region, are more likely than other respondents to report that there are no benefits to female circumcision. Similarly, more educated and wealthier respondents are least likely to cite any benefits of female circumcision.

16.7 ATTITUDES TOWARD FEMALE CIRCUMCISION

Women and men who had heard of female circumcision were asked if they thought the practice was required by their religion, and whether it should be continued or stopped. Table 16.8 shows that among respondents who had heard of female circumcision, 43 percent of women and 30 percent of men age 15-49 think that the practice is required by religion. Overall, younger respondents, urban residents, those living in the Western Region, those with more education, those in the wealthiest households, and those who are Christians are less likely than other respondents to think that the practice is required by religion.

Background characteristic	Women		Men	
	Percentage who think FGC is required by religion	Number of women	Percentage who think FGC is required by religion	Number of men
Circumcision status of respondent				
Circumcised	45.4	6,735	na	na
Not circumcised	18.4	557	na	na
Age				
15-19	36.5	1,176	26.8	480
20-24	40.9	1,176	22.6	389
25-29	43.7	1,627	31.7	433
30-34	43.7	1,033	32.1	362
35-39	47.7	1,121	31.5	511
40-44	47.2	650	33.2	332
45-49	48.2	509	36.1	314
Residence				
Urban	35.3	2,632	25.5	1,077
Rural	47.9	4,660	33.3	1,744
Region				
Eastern	49.2	1,307	27.0	533
Northern	40.2	2,973	31.4	1,080
Southern	57.0	1,523	35.5	588
Western	30.4	1,490	26.3	620
Education				
No education	48.3	4,808	34.5	1,365
Primary	38.5	943	29.6	383
Secondary or higher	30.7	1,541	25.2	1,073
Ethnic group				
Temne	40.2	2,546	31.5	1,029
Mende	55.5	2,301	34.1	849
Other	35.2	2,446	25.6	942
Religion				
Christian	22.4	1,606	14.3	625
Muslim	49.4	5,603	35.0	2,182
Other	36.9	84	*	14
Wealth quintile				
Lowest	46.3	1,367	32.7	534
Second	49.5	1,349	40.9	485
Middle	48.5	1,408	26.6	520
Fourth	43.3	1,462	30.1	564
Highest	31.8	1,707	24.1	717
Total	43.3	7,292	30.3	2,821
50-59	na	na	38.3	318
Total 15-59	na	na	31.1	3,139

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 16.9.1 shows that among women who had heard of female circumcision, two-thirds (66 percent) think that the practice should be continued, while 26 percent think the practice should be discontinued. Approximately one in ten women expressed conditional approval, or were unsure of their opinion. Continuation of female circumcision finds the greatest support among women in the Eastern and Southern regions (76 and 73 percent, respectively). Women in the Western Region are the least likely to support the practice (48 percent). However, even there, 44 percent of women think it should be continued. Women in urban areas, those with more education, and those in the wealthiest households are more likely than other women to think that the practice should be stopped.

Background characteristic	Attitude towards female circumcision				Total	Number of women
	Should be discontinued	Should be continued	Depends	Don't know		
Age						
15-19	37.9	52.9	3.6	5.5	100.0	1,176
20-24	31.4	60.1	4.3	4.1	100.0	1,176
25-29	23.8	67.9	3.8	4.6	100.0	1,627
30-34	24.4	68.0	3.7	3.9	100.0	1,033
35-39	18.8	72.6	5.1	3.4	100.0	1,121
40-44	20.4	72.9	3.8	2.8	100.0	650
45-49	13.4	75.4	5.3	5.9	100.0	509
Residence						
Urban	42.5	49.6	4.6	3.3	100.0	2,632
Rural	16.0	75.2	3.9	4.9	100.0	4,660
Region						
Eastern	17.8	76.2	3.4	2.6	100.0	1,307
Northern	24.0	68.6	4.6	2.8	100.0	2,973
Southern	13.5	73.2	4.1	9.1	100.0	1,523
Western	47.9	44.2	4.0	3.9	100.0	1,490
Education						
No education	15.3	75.9	4.2	4.6	100.0	4,808
Primary	31.6	59.6	4.5	4.3	100.0	943
Secondary or higher	54.1	38.7	3.7	3.5	100.0	1,541
Ethnic group						
Temne	27.7	64.9	4.5	2.9	100.0	2,546
Mende	15.9	74.2	3.2	6.6	100.0	2,301
Other	32.5	59.2	4.6	3.6	100.0	2,446
Religion						
Christian	45.6	46.2	4.3	3.8	100.0	1,606
Muslim	19.9	71.6	4.2	4.3	100.0	5,603
Other	19.4	68.3	0.0	12.3	100.0	84
Wealth quintile						
Lowest	12.4	76.9	4.2	6.5	100.0	1,367
Second	14.9	76.8	3.7	4.7	100.0	1,349
Middle	18.6	73.0	4.3	4.1	100.0	1,408
Fourth	28.4	63.6	4.5	3.5	100.0	1,462
Highest	47.9	44.8	4.1	3.2	100.0	1,707
Total	25.6	65.9	4.2	4.3	100.0	7,292

Men who had heard of female circumcision were asked the same questions as women about whether the practice should continue. Table 16.9.2 shows that 41 percent of men are against continuation of female circumcision while 45 percent favour continuation. Thus, in Sierra Leone, the proportion of men who oppose FGC is higher than the proportion of women who oppose FGC—41 and 26 percent, respectively—a pattern seen in many other parts of West Africa (Yoder et al., 2004). As seen for women, men in urban areas and those in the Western Region are the most likely to support discontinuation of female circumcision. Likewise, more educated men and wealthier men are more likely to favour stopping the practice than men with no education and those in the poorest households.

Table 16.9.2 Attitudes towards female circumcision: Men

Percent distribution of men who have heard of female circumcision by opinion on whether female circumcision should be continued, according to background characteristics, Sierra Leone 2008

Background characteristic	Attitude towards female circumcision				Total	Number of men
	Should be discontinued	Should be continued	Depends	Don't know		
Age						
15-19	38.7	43.5	7.1	10.6	100.0	480
20-24	46.6	37.7	9.0	6.7	100.0	389
25-29	41.2	45.4	8.4	5.0	100.0	433
30-34	41.5	46.7	5.7	6.1	100.0	362
35-39	42.0	43.6	7.2	7.2	100.0	511
40-44	44.3	46.6	4.7	4.4	100.0	332
45-49	34.9	51.5	8.3	5.3	100.0	314
Residence						
Urban	50.7	36.6	6.1	6.7	100.0	1,077
Rural	35.6	49.7	8.0	6.7	100.0	1,744
Region						
Eastern	41.9	46.0	7.8	4.3	100.0	533
Northern	35.5	50.6	8.2	5.7	100.0	1,080
Southern	35.7	43.5	9.7	11.1	100.0	588
Western	56.5	34.2	2.8	6.4	100.0	620
Education						
No education	34.9	50.9	7.0	7.2	100.0	1,365
Primary	36.6	46.9	8.7	7.9	100.0	383
Secondary or higher	51.3	36.0	7.0	5.7	100.0	1,073
Ethnic group						
Temne	43.2	46.5	5.5	4.9	100.0	1,029
Mende	41.8	42.0	8.4	7.8	100.0	849
Other	39.0	45.1	8.1	7.7	100.0	942
Religion						
Christian	50.6	36.1	6.1	7.2	100.0	625
Muslim	38.7	47.2	7.5	6.6	100.0	2,182
Other	*	*	*	*	*	14
Wealth quintile						
Lowest	32.5	52.8	5.8	9.0	100.0	534
Second	33.7	55.1	6.8	4.5	100.0	485
Middle	36.1	46.8	9.4	7.7	100.0	520
Fourth	46.1	39.6	9.9	4.5	100.0	564
Highest	53.3	34.1	5.0	7.6	100.0	717
Total 15-49	41.4	44.7	7.2	6.7	100.0	2,821
50-59	32.3	54.8	5.5	7.4	100.0	318
Total men 15-59	40.4	45.7	7.1	6.8	100.0	3,139

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

17.1 INTRODUCTION

Maternal mortality has become an important measure of human and social development. It is particularly revealing of women's overall status, access to health care, and the responsiveness of the health care system to their needs. Therefore, knowledge of maternal mortality levels is very important not only for identifying the risks associated with pregnancy and childbearing, but also for what it says about women's health and, indirectly, their economic and social status. Determining the level maternal mortality and the associated risk factors is necessary for both diagnosing issues and assessing the progress and effectiveness of existing programmes.

The 2008 SLDHS is the first DHS survey to collect data for use in estimating maternal mortality using the direct sisterhood method. Maternal mortality is calculated using data on the sisters of respondents. The information gathered on each of the respondent's sisters included current age and, if the sister was dead, age at death (AD), and the number of years since the death (YSD). For dead sisters, additional questions were asked to determine whether the death was related to childbearing, i.e., whether the death occurred during pregnancy, childbirth, or in the two months following the birth or end of the pregnancy.

The direct method of calculating maternal mortality presented here relies on detailed information about respondents' sisters, including the current age of all surviving sisters, the age at death of dead sisters, and the number of years since the death occurred. To obtain well defined reference periods, the data are aggregated to determine the number of person-years of exposure to mortality risk and the number of maternal deaths occurring in the defined reference periods. Maternal mortality rates are then estimated directly by dividing the number of maternal deaths by the number of person-years of exposure. The result of this calculation is the proportion of sisters, among all of the respondents' sisters, who died from maternity-related causes. This estimate of the probability of dying from maternity-related causes is unbiased, provided that the risk of dying is identical for all sisters (Trussel and Rodriguez, 1990).

17.2 DATA COLLECTION

The questionnaire used to gather data on maternal mortality is presented in Appendix E (Section 10 of the individual questionnaire). First, the woman is asked to list all of her siblings, i.e., all of the children born to her biological mother beginning with the first born. Next, the respondent is asked the survival status of each of her siblings, and the current age of those still living. For dead siblings, the respondent is asked the age of the sibling at death and the number of years since the death occurred. If the exact age or number of years could not be obtained, interviewers were authorized to accept approximate answers.

For sisters who died at the age of 12 or older, the respondent is asked further questions to determine whether the death was maternity-related:

- *Was (NAME) pregnant when she died?* If the answer is no or don't know, the respondent is asked:
- *Did (NAME) die during childbirth?* If the answer is no, the respondent is asked:
- *Did (NAME) die within two months after the end of a pregnancy or childbirth?*

These questions are structured to encourage the respondent to report all deaths following a pregnancy regardless of the outcome, including a pregnancy ending in induced abortion, while avoiding posing direct questions regarding such events. All such deaths are considered maternal deaths.

17.3 DATA QUALITY

The estimation of maternal mortality rates requires accurate reporting of the number of sisters the respondent ever had, the number who died, and the number who died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sister survivorship. The direct approach requires not only accurate data on sister survivorship, but on age at death and number of years since the death of a sister—information that may embarrass respondents or require them to provide details they do not have. The number of brothers and sisters reported by the respondent and the completeness of the reported data on current age, age at death, and years since death are presented in Table 17.1.

Sibling status and completeness of reporting	Sisters		Brothers		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
All siblings	14,619	100.0	14,750	100.0	29,370	100.0
Living	11,755	80.4	11,370	77.1	23,124	78.7
Dead	2,802	19.2	3,328	22.6	6,129	20.9
Status unknown	63	0.4	53	0.4	116	0.4
Living siblings	11,755	100.0	11,370	100.0	23,124	100.0
Age reported	11,291	96.1	10,931	96.1	22,222	96.1
Age missing	464	3.9	439	3.9	903	3.9
Dead siblings	2,802	100.0	3,328	100.0	6,129	100.0
AD and YSD reported	2,463	87.9	2,843	85.4	5,306	86.6
Missing only AD	122	4.3	207	6.2	328	5.4
Missing only YSD	72	2.6	70	2.1	142	2.3
Missing both AD and YSD	145	5.2	208	6.3	353	5.8

Complete data were obtained for nearly all sisters, regardless of survival status. Current age was reported for 96 percent surviving sisters, and age at death as well as number of years since death were reported for 88 percent of dead sisters. These percentages are indicative of relatively good data quality. Rather than exclude siblings with missing data from further analysis, information on the birth order of siblings was used in conjunction with other information to impute the missing data.¹ Sibling survivorship data, including cases with imputed values, were used to directly estimate adult and maternal mortality.

¹ The imputation procedure is based on the assumption that the reported birth order of brothers and sisters is correct. The first step is to calculate birth years for each living sibling whose age is known, and for each dead sibling for whom the age at death and years since death are known. For siblings missing these data, a date of birth is imputed within a range defined by the birth dates of the ‘bracketing’ siblings. In the case of living siblings, an age was then calculated from the imputed birth date. In the case of dead siblings, if either the age at death or years since death was reported, this information was combined with the imputed birth date to produce the missing information. If both pieces of information were missing, the distribution of age at death of siblings for whom years since death were unreported but age at death was known, was used as the basis for imputing age at death.

Missing date information is only one indicator of overall data quality. Completeness of basic information, such as number of siblings, is much more important. Table 17.2 shows other indicators of data completeness. First, it is expected that the distribution of respondents' birth years will be roughly equivalent to that of their sibship.² A median sibship year of birth that is much later than that the respondent's median birth year indicates that older siblings have been systematically omitted, perhaps because some of them died before the respondent was born. Such omissions would affect adult mortality estimates. For Sierra Leone, respondents and siblings have the median year of birth,³ 1973 and 1972 respectively, indicating that there is no serious underreporting of siblings. However, for maternal mortality assessments, the completeness of sibling reporting is not what's most important; rather, it is the completeness of data relating to those who are exposed to the risk of dying from maternity-related causes: sisters of childbearing age. It is crucial that these data be as complete as possible.

Two other tests, sex ratio of births (defined as number of males per 100 females) and mean sibship size, can be used to assess the completeness of sibling reporting. The results appear in Table 17.2.

For all siblings, the sex ratio of births is 101 males to 100 females. This is slightly lower than generally observed, because the sex ratio of births is around 105 males per 100 females, with only slight variations, for all populations. In Sierra Leone, the sex ratio of births varies by respondent's year of birth, from 98 to 106. Given the well known variability of sex ratios in small sample sizes, this indicates there has been no serious underreporting of sisters. However, it is clear that reporting of sisters is relatively more accurate among younger than older respondents.

The data indicate a mean sibship size (including the respondent) of 5.0, which is very close to the past final parity of Sierra Leonean women. Variations in sibship size by respondent's year of birth range from 4.3 to 5.1 children, confirming that fertility has changed very little in Sierra Leone between 1955 and 1994, with the exception of fertility of 4.3 and 4.6 for the periods 1955-59 and 1960-64 respectively. These exceptions show that there was a slight underreporting of births for the siblings of older respondents. It can be generally said, however, that there is a relative stability of mean sibship size, which suggests that, as with the previous results, there has been no serious underreporting of siblings.

General and maternal mortality estimates cover the past seven years (i.e., 0-6 years preceding the survey). This seven-year reference period was chosen to obtain the most recent estimate of maternal mortality while still retaining a sufficient number of maternal deaths (which, nevertheless, remains relatively low) to reduce sampling errors to a minimum and ensure a reliable estimate.

² The term *sibship* used here refers to all of a respondent's siblings born of the same biological mother.

³ It should be noted that the distribution of birth years is not the same for siblings as for respondents: respondent birth years are distributed over 35 years (1958 to 1993); sibling birth years are distributed over 76 years (1932 to 2008).

Birth year	Percent distribution	
	Respondents	Siblings
Before 1960	0.8	5.5
1960-64	7.7	5.2
1965-69	9.1	9.7
1970-74	15.7	11.5
1975-79	15.2	15.9
1980-84	22.0	15.2
1985-89	17.1	14.2
1990-94	12.3	9.8
1995 or after	0.0	13.0
Total	100.0	100.0
Interval	1958-1993	1932-2008
Median	1973	1972
Number	7,374	29,198
Respondent's year of birth	Mean sibship size	Sex ratio at birth of siblings
1955-59	4.3	100.9
1960-64	4.6	98.9
1965-69	5.0	102.2
1970-74	4.9	98.4
1975-79	5.0	98.5
1980-84	5.1	98.8
1985-89	5.1	104.6
1990-94	5.0	106.0
Total	5.0	100.9

17.4 DIRECT ESTIMATES OF ADULT MORTALITY

The total number of deaths (397 brothers and 613 sisters) occurring between the ages of 15 and 49 in the seven-year reference period (i.e., 0-6 years preceding the survey) is sufficiently large to ensure a reliable estimate of adult mortality. The data for this period are presented in Table 17.3.

The results show a relatively high rate of adult mortality: 5.8 per 1,000 for all women and 6.6 per 1,000 for all men.

It is important to evaluate the reliability of direct estimates of adult mortality because the data on sister mortality serve as the basis of maternal mortality data. If the adult mortality estimate is incorrect, the maternal mortality estimate will also be erroneous. In the absence of precise mortality data for Sierra Leone, the reliability of the adult mortality estimate is assessed by comparing it to a series of direct rates extrapolated from United Nations model life tables (United Nations, 1982).

Age-specific mortality rates obtained from model life tables are presented in Table 17.3. The model life table rates are taken from the United Nations 'General' pattern because these most closely approximate the infant and child mortality models of Sierra Leone. They correspond to the probability of dying between birth and exact age one (${}_1q_0$) estimated for the ten years preceding the survey.⁴

Underreporting of events and erroneous dating of reported events can affect the validity of retrospective data. The estimates in this survey are subject to underreporting, especially for less recent events. Although the quality assessments indicate no major problem of this type, a closer evaluation is required. Evaluation shows that general mortality rates of siblings are relatively higher for younger ages and underestimated for older ages, in particular adult mortality for sisters age 45-49, in comparison to those of the United Nations mortality models (Figures 17.1 and 17.2).

Table 17.3 Estimates of age-specific female and male adult mortality

Direct estimates of age-specific female and male adult mortality based on the survivorship of siblings of survey respondents, for the period 2001-2008, and model life table rates, Sierra Leone 2008

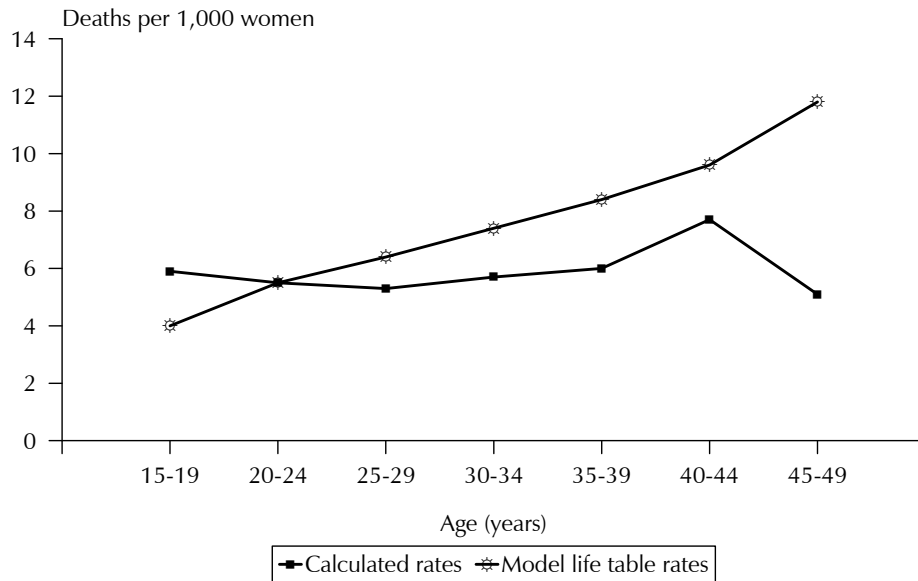
Age	2001-2008			Model life table rates
	Deaths	Years of exposure	Mortality rates (%)	
WOMEN				
15-19	71	12,094	5.9	4.0
20-24	72	13,239	5.5	5.5
25-29	67	12,633	5.3	6.4
30-34	58	10,135	5.7	7.4
35-39	44	7,382	6.0	8.4
40-44	33	4,230	7.7	9.6
45-49	12	2,368	5.1	11.8
15-49	357	62,082	5.8 ^a	
MEN				
15-19	75	11,423	6.5	3.5
20-24	94	13,040	7.2	5.0
25-29	73	12,361	5.9	5.7
30-34	61	9,857	6.2	6.8
35-39	41	7,053	5.8	8.4
40-44	28	4,203	6.6	10.9
45-49	26	2,391	10.9	14.5
15-49	397	60,328	6.6 ^a	

Note: The model life table rates come from the United Nations Model Life Tables for Developing Countries, 'General' mortality pattern, using a level of mortality approximately corresponding to a probability of dying between birth and exact age 1 estimated for the ten years preceding the survey (i.e., ${}_1q_0$ of 104 per 1,000 female births and 117 per 1,000 male births).

^a Age adjusted

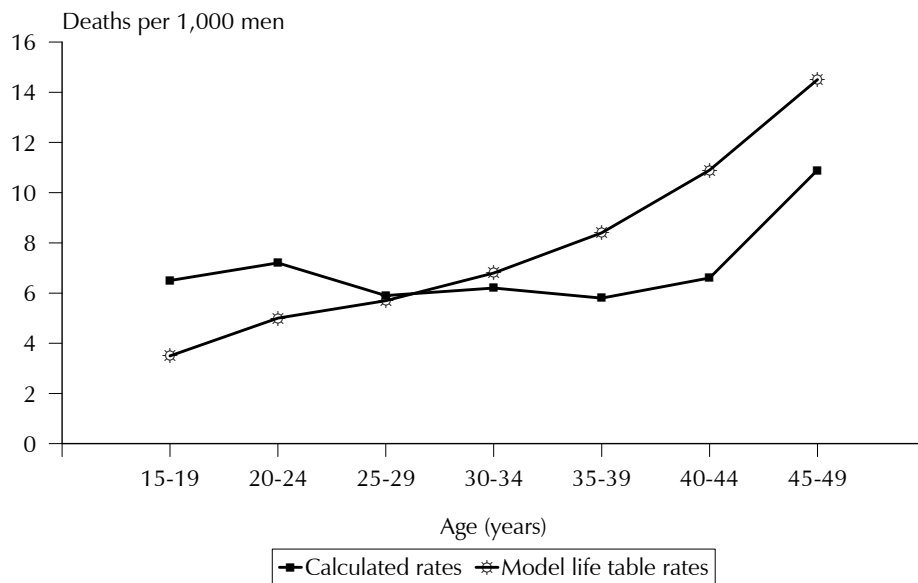
⁴ The probability of dying between birth and exact age 1 (${}_1q_0$) estimated for the 10 years preceding the survey is 105 per 1,000 female births and 118 per 1,000 male births, according to the 2008 SLDHS (see Chapter 8).

Figure 17.1 Female Mortality Rates for the Period 2001-2008 and Model Life Table Rates, by Age Group



Sierra Leone, 2008

Figure 17.2 Male Mortality Rates for the Period 2001-2008 and Model Life Table Rates, by Age Group



Sierra Leone, 2008

17.5 DIRECT ESTIMATES OF MATERNAL MORTALITY

Direct estimates of maternal mortality obtained from reports of sister survivorship are presented in Table 17.4. The number of maternal deaths among women age 15-49 is estimated at 97 for the period 0-6 years preceding the survey. Age-specific proportions dying of maternal causes display, with the exception the age group 15-19 a consistent pattern, increasing with age up to age 30-34, then decreasing in the older age groups. Given the relatively low number of events, the method used was to estimate a single rate corresponding to the reproductive years. The estimate for all

mortality due to maternal causes, expressed per 1,000 women-years of exposure to maternal risk, is 1.5 for the 2001-2008 period.

The maternal mortality rate can be converted to a maternal mortality ratio (MMR), expressed per 100,000 live births, by dividing the rate by the general fertility rate associated with the same time period (Table 17.4). This brings out the obstetrical risks of pregnancy and childbearing. Using this method, the MMR is estimated to be 857 maternal deaths per 100,000 live births for the period 0-6 years preceding the survey.

The estimated age-specific proportions of deaths due to maternal causes for the period 2001-2008 display a plausible pattern, being higher for age group 30-34, when more than four in ten deaths (41 percent) are related to maternal causes. Unlike the other measures of mortality presented earlier, these proportions are not affected by underreporting because it can be assumed that underreporting does not affect maternal deaths any more than deaths due to other causes. Therefore, it can be estimated that more than one in four deaths (27 percent) among women of childbearing age (15-49) is due to maternal causes.

Table 17.4 Maternal mortality				
Maternal mortality rates for the period 2001-2008, based on the survivorship of sisters of survey respondents, Sierra Leone 2008				
Age	Maternal deaths	Years of exposure	Mortality rates (‰)	Proportion dying of maternal causes
15-19	21	12,094	1.7	29.3
20-24	19	13,239	1.4	26.6
25-29	19	12,633	1.5	28.2
30-34	24	10,135	2.3	41.2
35-39	9	7,382	1.2	20.5
40-44	4	4,230	0.9	11.3
45-49	1	2,368	0.5	10.0
15-49	97	62,082	1.5 ^a	27.1
General Fertility Rate (GFR) ^a			173	
Maternal mortality ratio (MMR) ^b			857	

^a Age adjusted
^b Per 100,000 births; calculated as maternal mortality rate divided by the general fertility rate.

REFERENCES

- Althabe, F., and J.M. Belizan. 2006. Caesarean section: The paradox. *Lancet* 368(9546): 1472-1473.
- Caldwell, J.J., I.O. Orubuloye, and P. Caldwell. 2000. Female genital cutting: Conditions of decline, *Social Science and Medicine* 19: 233-254.
- Cellule de Planification et de Statistique du Ministère de la Santé (CPS/MS), Direction Nationale de la Statistique et de l'Informatique du Ministère de l'Économie, de l'Industrie et du Commerce (DNSI/MEIC) et Macro International Inc. 2007. *Enquête Démographique et de Santé du Mali 2006*. Calverton, Maryland, USA: CPS/DNSI and Macro International Inc.
- Central Statistics Office (CSO) [Sierra Leone]. 1963. *Sierra Leone Population and Housing Census 1963*. Freetown, Sierra Leone: CSO.
- Centres for Disease Control and Prevention (CDC). 1998. Recommendations to prevent and control iron deficiency in the United States. *Morbidity and Mortality Weekly Report* 47 (RR-3): 1-30.
- DeMaeyer et al., 1989. *Preventing and controlling iron deficiency anaemia through primary health care: a guide for health administrators and programme managers*. Geneva: World Health Organization.
- Direction Nationale de la Statistique (DNS) (Guinée) and ORC Macro. 2006. *Enquête Démographique et de Santé, Guinée 2005*. Calverton, Maryland, USA: DNS and ORC Macro.
- Ghana Statistical Service (GSS), Noguchi Memorial Institute for Medical Research (NMIMR), and ORC Macro. 2004. *Ghana Demographic and Health Survey 2003*. Calverton, Maryland: GSS, NMIMR, and ORC Macro.
- International Council for Control of Iodine Deficiency Disorders (ICCIDD). 2001. *Assessment of iodine deficiency disorders and monitoring their elimination: A guide for programme managers*. Geneva: World Health Organization.
- Ministry of Development [Sierra Leone]. 1993. *National population policy paper 1993*. Freetown, Sierra Leone: Ministry of Development.
- Ministry of Health and Sanitation (MOHS) [Sierra Leone]. 2006. *Malaria control programme emission, objectives and aims*. Freetown, Sierra Leone: MHS. Available at: http://www.health.sl/drwebsite/publish/printpage_46.shtml
- Ndiaye, S., and M. Ayad. 2006. *Enquête Démographique et de Santé au Sénégal 2005*. Calverton, Maryland, USA : Centre de Recherche pour le Développement Humain [Sénégal] and ORC Macro.
- Pan-American Health Organization (PAHO) and World Health Organization (WHO). 2003. *Guiding principles for complementary feeding of the breastfed child*. Washington, D.C./Geneva: PAHO/WHO.
- Rutstein, S.O., and G. Rojas. 2003. *Guide to DHS statistics*. Calverton, Maryland, USA: ORC Macro.
- Sierra Leone Government. 1974. *National Development Plan 1974/75-1978/79*. Ministry of Development and Economic Planning, Central Planning Unit. Freetown, Sierra Leone: Ministry of Development and Economic Planning.

- Sierra Leone Government (SLG). 2007. The Child Rights Act, 2007. Supplement to the Sierra Leone Gazette Extraordinary No. 43, September 3, 2007, Sierra Leone: Government Printing Department.
- Statistics Sierra Leone (SSL). 2006a. *Annual statistical digest 2004*. Freetown, Sierra Leone: SSL.
- Statistics Sierra Leone (SSL). 2006b. *Sierra Leone Population and Housing Census 2004*, Final Report. Freetown, Sierra Leone: Statistics Sierra Leone.
- Statistics Sierra Leone (SSL) and National HIV/AIDS Secretariat (NHS). 2005. *National Sero-Prevalance Survey 2005*. Freetown, Sierra Leone: Statistics Sierra Leone and National HIV/AIDS Secretariat.
- Statistics Sierra Leone (SSL) and UNICEF/Sierra Leone. 2007. *Sierra Leone Multiple Indicator Cluster Survey (MICS) 2005*. Freetown, Sierra Leone: Statistics Sierra Leone and UNICEF/Sierra Leone.
- Sullivan, J.M., S.O. Rutstein, and G.T. Bicego. 1994. *Infant and child mortality*. DHS Comparative Studies No.15. Calverton, Maryland: Macro International Inc.
- Toubia, N. 1995. *Female genital mutilation: A call for global action*. New York: Research Action Information Network for Bodily Integrity for Women (RAINBO).
- Trussell, J., and G. Rodriguez. 1990. A note on the sisterhood estimate of maternal mortality. *Studies in Family Planning* 21(6): 344-346.
- United Nations. 1982. *Model life tables for developing countries*. Population Studies No. 77. New York : United Nations, Department of International Economic and Social Affairs.
- United Nations. 2009. *World population prospects: The 2008 Revision*. Population database. New York: United Nations Population Division. Available at: <http://esa.un.org/unpp/>.
- United Nations Children's Fund (UNICEF), World Health Organization (WHO), and United Nations Population Fund (UNFPA).1997. *Guidelines for monitoring the availability and use of obstetric services*. New York: UNICEF.
- United Nations Development Programme (UNDP). 2007. *Human development report 2007/2008: Fighting climate change*. New York: UNDP.
- UNGASS. 2007. *Sierra Leone country report on declaration of commitment to HIV and AIDS 2006-2007*. Prepared for the UN General Assembly on HIV and AIDS.
- World Health Organization (WHO). 2001. *Iron deficiency anaemia: Assessment, prevention, and control*. A guide for programme managers. Geneva: World Health Organization (WHO/NHD/01.3).
- World Health Organization (WHO). 2005. *Guiding principles for feeding nonbreastfed children 6 to 24 months of age*. Geneva: World Health Organization.
- World Health Organization (WHO) Multicenter 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.
- World Health Organization (WHO) and UNAIDS. 2007. *New data on male circumcision and HIV prevalence: Policy and programme implications*. Geneva: World Health Organization and UNAIDS.
- Yoder, P.S., N. Abderrahim, and A. Zhuzhuni. 2004. *Female genital cutting in Demographic and Health Surveys: A critical and comparative inquiry*. Calverton, Maryland: ORC Macro.

A.1 OBJECTIVES OF THE SURVEY

The 2008 Sierra Leone Demographic and Health Survey (SLDHS 2008) is the first DHS survey carried out in the country, although it shares many similarities with previous surveys such as MICS-1 (1995), MICS-2 (2000), and MICS-3 (2005). Based on a nationally representative sample of approximately 8,000 households and 10,000 complete women interviews, the main objectives of the SLDHS 2008 were to provide up-to-date information on fertility and childhood mortality levels; fertility preferences; awareness, approval, and use of family planning methods; maternal and child health; knowledge and attitudes towards HIV/AIDS and other sexually transmitted infections (STI); prevalence level of HIV/AIDS. All women age 15-49 who slept in the selected households the night before the survey were eligible to be interviewed with the Woman's Questionnaire. The survey results are representative for the country as a whole, for urban and rural areas, and for each of the four provinces.

Separate from the main survey of women and children, a survey of men was conducted in one of every two households selected for the main survey. All men age 15-59 who slept in the households selected for the men's survey were interviewed using the Men's Questionnaire. All eligible men age 15-59 and all eligible women age 15-49 in the households selected for male survey were eligible for HIV testing.

A.2 SAMPLING FRAME

Administratively, Sierra Leone is divided into 4 provinces. Each province is divided into districts, each district is divided into chiefdoms, and each chiefdom is divided into sections. In total, there are 14 districts, 149 chiefdoms, and 1,320 sections. Among the 14 districts, Bo City from Bo district, Bonthe City from Bonthe district, Kenema City from Kenema district, Koidu City from Kono district and Makeni City from Bombali district were separated from the district to form 5 city councils; the rest of the 5 districts form 5 local councils; the other 9 districts each forms a local council. So in total, there are 19 local councils. The five city councils together form a domain of study. For the purpose of the SLDHS, the local councils were adopted as a secondary domain of study. Samples were allocated to each local council and by urban-rural residence within each council.

In addition to these administrative units, during the 2004 Sierra Leone Population and Housing Census (SSL, 2006b), each section was subdivided into convenient area units called Enumeration Areas (EAs), which were compiled electronically into a complete list of all the EAs. The list contains census information on household, population, urban-rural specifications, and administrative matters, etc. for every EA. The census EAs were used as the primary sampling units (PSUs), also called clusters, for the 2008 SLDHS. The sample was selected from the frame of PSUs provided by Statistics Sierra Leone (SSL). The frame excluded the population living in collective housing units, such as hotels, hospitals, work camps, prisons, and the like. Table A.1 shows the distribution of EAs and their average size by local council and by urban-rural specification.

In total, there are 9,671 EAs in Sierra Leone; 2,903 EAs are located in urban areas and 6,768 EAs are located in rural areas. On average, a census EA has 102 households in urban areas and 77 households in rural areas, with an overall average of 85 households per EA. Table A.2 and Table A.3 show the distribution of the household population and the distribution of households by domain, local council, and by urban-rural specification. In Sierra Leone, 35.8 percent of the household population lives in urban areas and they occupy 36.3 percent of the households, according to the sampling frame. The statistics from the sampling frame show no differences when compared with the 2004 Population and Housing Census; this indicates that the sampling frame covers the whole country.

Table A.1 Distribution of Enumeration Areas (EAs) by domain and local council, and by urban-rural specification

Domain/Local council	Number of EAs			Average number of households per EA		
	Urban	Rural	Total	Urban	Rural	Total
Eastern	235	1,805	2,040	106	85	87
Kailahun District	86	618	704	109	90	92
Kenema District	101	691	792	103	84	86
Kono District	48	496	544	109	79	82
Northern	415	3,004	3,419	80	72	73
Bombali District	44	644	688	74	72	72
Kambia District	84	422	506	81	72	73
Koinadugu District	41	468	509	91	85	86
Port Loko Distri	124	767	891	85	72	74
Tonkolili District	122	703	825	74	62	64
Southern	211	1,873	2,084	77	76	76
Bo District	59	586	645	106	80	82
Bonthe District	36	310	346	67	70	70
Moyamba District	67	549	616	57	75	73
Pujehun District	49	428	477	76	75	75
Western	1,439	86	1,525	105	145	108
Western Area Urban	1,349		1,349	99		99
Western Rural District	90	86	176	196	145	171
Local councils	603		603	118		118
Bo Town	192		192	118		118
Bonthe Town	17		17	75		75
Kenema Town	211		211	97		97
Koidu/New Sembahun Town	61		61	237		237
Makeni Town	122		122	100		100
Sierra Leone	2,903	6,768	9,671	102	77	85

Note: Sampling frame is from the 2004 Population and Housing Census (SSL, 2006b).

Table A.2 Distribution of the household population by domain and local council, and by urban-rural specification

Domain/Local council	Household population			Proportion	
	Urban	Rural	Total	Urban	Domain/ Council
Eastern	139,730	835,193	974,923	0.143	0.198
Kailahun District	52,155	305,020	357,175	0.146	0.072
Kenema District	56,795	306,668	363,463	0.156	0.074
Kono District	30,780	223,505	254,285	0.121	0.052
Northern	220,546	1,439,665	1,660,211	0.133	0.337
Bombali District	21,493	303,184	324,677	0.066	0.066
Kambia District	46,820	223,556	270,376	0.173	0.055
Koinadugu District	22,486	243,197	265,683	0.085	0.054
Port Loko Distri	72,090	380,929	453,019	0.159	0.092
Tonkolili District	57,657	288,799	346,456	0.166	0.070
Southern	95,941	818,072	914,013	0.105	0.185
Bo District	37,522	262,734	300,256	0.125	0.061
Bonthe District	13,827	116,051	129,878	0.106	0.026
Moyamba District	22,148	236,358	258,506	0.086	0.052
Pujehun District	22,444	202,929	225,373	0.100	0.046
Western	864,230	70,061	934,291	0.925	0.189
Western Area Urban	764,484		764,484	1.000	0.155
Western Rural District	99,746	70,061	169,807	0.587	0.034
Local councils	447,094		447,094	1.000	0.091
Bo Town	148,705		148,705	1.000	0.030
Bonthe Town	9,727		9,727	1.000	0.002
Kenema Town	126,966		126,966	1.000	0.026
Koidu/New Sembahun Town	79,981		79,981	1.000	0.016
Makeni Town	81,715		81,715	1.000	0.017
Sierra Leone	1,767,541	3,162,991	4,930,532	0.358	1.000

Note: Sampling frame is from the 2004 Population and Housing Census (SSL, 2006b).

Domain/Local council	Households			Proportion	
	Urban	Rural	Total	Urban	Domain/ Council
Eastern	24,966	152,530	177,496	0.164	0.216
Kailahun District	9,353	55,573	64,926	0.144	0.079
Kenema District	10,400	57,773	68,173	0.153	0.083
Kono District	5,213	39,184	44,397	0.117	0.054
Northern	33,360	215,581	248,941	0.134	0.304
Bombali District	3,243	46,408	49,651	0.065	0.061
Kambia District	6,793	30,346	37,139	0.183	0.045
Koinadugu District	3,714	39,986	43,700	0.085	0.053
Port Loko Distri	10,552	55,038	65,590	0.161	0.080
Tonkolili District	9,058	43,803	52,861	0.171	0.064
Southern	16,229	141,945	158,174	0.103	0.193
Bo District	6,233	46,868	53,101	0.117	0.065
Bonthe District	2,427	21,784	24,211	0.100	0.030
Moyamba District	3,857	41,366	45,223	0.085	0.055
Pujehun District	3,712	31,927	35,639	0.104	0.043
Western	151,755	12,443	164,198	0.924	0.200
Western Area Urban	134,138		134,138	1.000	0.164
Western Rural District	17,617	12,443	30,060	0.586	0.037
Local councils	71,045		71,045	1.000	0.087
Bo Town	22,699		22,699	1.000	0.028
Bonthe Town	1,274		1,274	1.000	0.002
Kenema Town	20,383		20,383	1.000	0.025
Koidu/New Sembahun Town	14,429		14,429	1.000	0.018
Makeni Town	12,260		12,260	1.000	0.015
Sierra Leone	297,355	522,499	819,854	0.363	1.000

Note: Sampling frame is from the 2004 Population and Housing Census (SSL, 2006b).

A.3 SAMPLE ALLOCATION AND SAMPLE SELECTION

The 2008 SL DHS sample was a stratified sample selected in two stages from the 2004 census frame. Stratification was achieved by separating each local council into urban and rural areas. The West Urban Area and the 5 city councils have only urban areas; in total, 32 sampling strata were constructed. The samples were selected independently in each stratum, using a two-stage selection procedure. By sorting the sampling frame according to administrative order and by using a probability proportional to size selection in the first stage sampling, an implicit stratification and proportional allocation was achieved at each administrative level.

The sample allocation takes into account precision at the domain level. While it would be best to allocate the 10,000 completed women's interviews proportionally to each sampling stratum by stratum size, such a proportional allocation would allocate too small a sample size for the domain Local Councils. DHS surveys in the other countries show that to obtain reasonable precision for most DHS indicators at the domain level, at least 800 completed interviews of women 15-49 are needed for each domain. On the other hand, for survey precision to be comparable across domains, the samples should (as much as possible) be similar in size. This means that the proportional allocation cannot be used. Instead, a power allocation was used—allocation proportional to a power of the stratum size; it is between the proportional allocation and the equal size allocation.

The sample allocation was done in two steps: first, a power allocation was used to allocate the target number of complete women 15-49 to each domain; then the domain sample size was proportionally allocated to each sampling stratum—that is, the urban and rural areas of each local council—within the domain. The sample allocation was then converted to number of households by applying the average number of women 15-49 per household and response rates at household level and the individual level, respectively. The 2004 Population and Housing Census shows that there are 1.53 women age 15-49 per household (SSL, 2006b). By assuming a response rate of 95 percent for both households and women, and a sample take of 22 households per EA, the sample allocation of EAs and households by domain and local council, and by urban-rural specification was carried out (Table 4). In total, 353 EAs were selected with 145 EAs in urban areas and 208 EAs in rural areas; 7,766 households were selected with 3,190 households in urban areas and 4,576 households in rural

areas. Table 5 shows the expected numbers of completed interviews for women age 15-49 and men age 15-59 by domain and local council, and by urban-rural specification: 10,727 completed interviews of women age 15-49, 4,408 in urban areas and 6,319 in rural areas.

The sampling procedure for the men's survey was to interview men age 15-59 in one of every two households selected for the women's survey. The 2004 Population and Housing Census showed an average of 1.5 men age 15-59 per household (SSL, 2006b). By assuming a response rate of 90 percent, the expected number of completed interviews for men age 15-59 was 4,976 (2,042 in urban areas and 2,934 in rural areas). Urban areas were slightly over sampled because of the creation of the five city councils as a domain.

Prior to the main survey, a household listing operation was carried out in all of the selected EAs, and the resulting lists of households served as the sampling frame for the selection of households in the second stage. Some of the selected EAs were large in size; to minimize the task of household listing, selected EAs that had more than 200 households were segmented. Only one segment was selected for the survey with probability proportional to the segment size. The household listing was conducted only in the selected segment; therefore, a SLDHS 2008 cluster is either an EA or a segment of an EA. Household selection in the second stage was an equal probability systematic selection of fixed size: 22 households per cluster. The fixed second stage sample size facilitates allocation of workloads to different interviewers and as well as quality control during fieldwork.

In the central office, a spreadsheet with the selected household numbers for each cluster was prepared for the household selection. Survey interviewers were asked to interview only the pre-selected households. To prevent bias, no replacements and no changes in the pre-selected households were allowed in the implementing stages. All women age 15-49 who slept in the selected households the night before the survey were eligible to be interviewed; all men age 15-59 who slept in the households selected for the survey of men were eligible to be interviewed.

Table A.4 shows the sample allocation of clusters (EAs) and households by domain and local councils, and by urban-rural specification. Table A.5 shows the expected number of completed interviews for women and men by domain and local councils, and by urban-rural specification. The results of the survey are presented in Table A.6 for women and Table A.7 for men. The survey yielded a smaller number of completed interviews for both women and men because there were fewer eligible women and men per household, compared with the census numbers.

Table A.4 Sample allocation of Enumeration Areas (EAs) and households by domain and local council, and by urban-rural specification						
Domain/Local council	Number of EAs			Number of households		
	Urban	Rural	Total	Urban	Rural	Total
Eastern	12	61	73	264	1,342	1,606
Kailahun District	4	22	26	88	484	572
Kenema District	5	23	28	110	506	616
Kono District	3	16	19	66	352	418
Northern	15	79	94	330	1,738	2,068
Bombali District	2	17	19	44	374	418
Kambia District	3	11	14	66	242	308
Koinadugu District	2	15	17	44	330	374
Port Loko Distri	4	20	24	88	440	528
Tonkolili District	4	16	20	88	352	440
Southern	9	60	69	198	1,320	1,518
Bo District	3	20	23	66	440	506
Bonthe District	2	10	12	44	220	264
Moyamba District	2	17	19	44	374	418
Pujehun District	2	13	15	44	286	330
Western	67	8	75	1,474	176	1,650
Western Area Urban	57		57	1,254		1,254
Western Rural District	10	8	18	220	176	396
Local councils	42		42	924		924
Bo Town	13		13	286		286
Bonthe Town	3		3	66		66
Kenema Town	11		11	242		242
Koidu/New Sembahun Town	8		8	176		176
Makeni Town	7		7	154		154
Sierra Leone	145	208	353	3,190	4,576	7,766

Table A.5 Expected number of completed interviews for women and men by domain and local council, and by urban-rural specification

Domain/Local council	Expected number of completed interviews for women 15-49			Expected number of completed interviews for men 15-59		
	Urban	Rural	Total	Urban	Rural	Total
Eastern	365	1,853	2,218	169	860	1,029
Kailahun District	122	668	790	56	310	366
Kenema District	152	699	851	71	324	395
Kono District	91	486	577	42	226	268
Northern	457	2,400	2,857	210	1,115	1,325
Bombali District	61	516	577	28	240	268
Kambia District	91	334	425	42	155	197
Koinadugu District	61	456	517	28	212	240
Port Loko Distri	122	608	730	56	282	338
Tonkolili District	122	486	608	56	226	282
Southern	274	1,823	2,097	126	846	972
Bo District	91	608	699	42	282	324
Bonthe District	61	304	365	28	141	169
Moyamba District	61	516	577	28	240	268
Pujehun District	61	395	456	28	183	211
Western	2,036	243	2,279	945	113	1,058
Western Area Urban	1,732		1,732	804		804
Western Rural District	304	243	547	141	113	254
Local councils	1,276		1,276	592		592
Bo Town	395		395	183		183
Bonthe Town	91		91	42		42
Kenema Town	334		334	155		155
Koidu/New Sembahun Town	243		243	113		113
Makeni Town	213		213	99		99
Sierra Leone	4,408	6,319	10,727	2,042	2,934	4,976

A.4 SELECTION PROBABILITY AND SAMPLING WEIGHT

Because of the non-proportional allocation of the sample to the different districts and to their urban-rural areas, sampling weights are required for any analysis of the SLDHS 2008 data; this is to ensure the representativeness of the survey results at both the national level and the district level. Because the SLDHS 2008 sample was a two-stage stratified cluster sample, sampling weights (based on sampling probabilities) were calculated separately for each sampling stage and for each cluster. The following notations were used:

- P_{1hi} : first-stage sampling probability of the i^{th} cluster in stratum h
 P_{2hi} : second-stage sampling probability within the i^{th} cluster (household selection)

Let a_h be the number of clusters selected in stratum h , M_{hi} the number of households according to the sampling frame in the i^{th} cluster, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the i^{th} cluster in the SLDHS 2008 sample is calculated as follows:

$$\frac{a_h M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected segment compared with the total number of households in the EA i in stratum h if the EA is segmented, otherwise $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h , let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the production of the two stages selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The sampling weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

A spreadsheet containing all sampling parameters and selection probabilities was prepared to facilitate the calculation of sampling weights. Sampling weights were adjusted for household non-response and for individual non-response, for women and men, respectively. The differences of the household weights and the individual weights are introduced by individual non-response. The final weights were normalized to make the total number of unweighted cases equal to the total number of weighted cases at the national level, for both household weights and individual weights. A set of weights for HIV testing were calculated in the same way, but normalized in a slightly different way for individual weights. The individual weights for HIV testing were normalized for women and men together at national level. This allows unbiased estimates of HIV prevalence that can be calculated for women and men together or separately.

A.5 SURVEY RESULTS

Table A.6 and Table A.7 show the results of the sample implementation for women and men, respectively.

Table A.6 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), Sierra Leone 2008

Result	Residence		Region				Total
	Urban	Rural	Eastern	Northern	Southern	Western	
Selected households							
Completed (C)	92.8	94.6	92.5	92.5	97.1	93.9	93.9
Household present but no competent respondent at home (HP)	1.7	0.7	0.5	1.3	0.4	2.3	1.1
Refused (R)	0.5	0.2	0.2	0.5	0.2	0.2	0.3
Dwelling not found (DNF)	1.4	0.6	1.3	0.9	0.3	1.0	0.9
Household absent (HA)	1.5	2.1	2.7	2.3	1.2	1.1	1.9
Dwelling vacant/address not a dwelling (DV)	1.4	0.9	1.3	1.5	0.6	0.7	1.1
Dwelling destroyed (DD)	0.4	0.8	1.1	0.8	0.2	0.3	0.6
Other (O)	0.3	0.2	0.3	0.1	0.0	0.5	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	3,184	4,574	2,020	2,222	1,866	1,650	7,758
Household response rate (HRR) ¹	96.3	98.5	97.8	97.1	99.1	96.4	97.6
Eligible women							
Completed (EWC)	93.4	94.5	96.2	91.3	97.2	91.9	94.0
Not at home (EWNH)	3.2	2.8	1.6	4.3	1.3	4.7	3.0
Postponed (EWP)	0.1	0.0	0.0	0.1	0.1	0.1	0.1
Refused (EWR)	1.3	0.9	0.5	1.9	0.5	1.2	1.1
Partly completed (EWPC)	0.3	0.2	0.1	0.5	0.1	0.2	0.2
Incapacitated (EWI)	0.6	0.9	0.8	1.7	0.2	0.3	0.8
Other (EWO)	1.2	0.5	0.8	0.3	0.7	1.7	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,385	4,460	1,828	2,372	1,888	1,757	7,845
Eligible women response rate (EWRR) ²	93.4	94.5	96.2	91.3	97.2	91.9	94.0
Overall women response rate (OWRR) ³	89.9	93.1	94.1	88.6	96.3	88.6	91.8

¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

² Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

³ The overall response rate (ORR) is calculated as: $OWRR = HRR * EWRR/100$

Table A.7 Sample implementation: Men							
Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall men response rates, according to urban-rural residence and region (unweighted), Sierra Leone 2008							
Result	Residence		Region				Total
	Urban	Rural	Eastern	Northern	Southern	Western	
Selected households							
Completed (C)	92.5	94.9	92.3	93.3	96.9	93.5	93.9
Household present but no competent respondent at home (HP)	1.8	0.4	0.6	1.1	0.1	2.3	1.0
Refused (R)	0.6	0.3	0.3	0.6	0.4	0.1	0.4
Dwelling not found (DNF)	1.4	0.4	1.4	0.6	0.1	1.1	0.8
Household absent (HA)	1.6	1.9	2.0	2.2	1.4	1.3	1.8
Dwelling vacant/address not a dwelling (DV)	1.4	1.0	1.7	1.4	0.8	0.7	1.2
Dwelling destroyed (DD)	0.6	0.9	1.5	0.7	0.3	0.4	0.7
Other (O)	0.3	0.2	0.3	0.1	0.0	0.6	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,593	2,287	1,010	1,112	933	825	3,880
Household response rate (HRR) ¹	96.1	98.9	97.6	97.6	99.3	96.4	97.7
Eligible men							
Completed (EMC)	90.0	94.7	95.4	89.2	97.4	88.7	92.6
Not at home (EMNH)	5.6	2.5	2.6	4.7	1.6	6.6	3.8
Postponed (EMP)	0.1	0.1	0.0	0.2	0.0	0.0	0.1
Refused (EMR)	2.4	1.1	0.7	3.5	0.1	2.3	1.7
Partly completed (EMPC)	0.5	0.2	0.0	0.6	0.0	0.6	0.3
Incapacitated (EMI)	0.4	0.3	0.0	0.9	0.0	0.4	0.3
Other (EMO)	1.0	1.2	1.3	1.0	0.9	1.4	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,559	1,982	857	1,014	880	790	3,541
Eligible men response rate (EMRR) ²	90.0	94.7	95.4	89.2	97.4	88.7	92.6
Overall men response rate (ORR) ³	86.5	93.6	93.2	87.0	96.7	85.5	90.5
¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:							
$\frac{100 * C}{C + HP + R + DNF}$							
² Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:							
$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$							
³ The overall response rate (ORR) is calculated as: $ORR = HRR * EMRR/100$							

The estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2008 Sierra Leone Demographic and Health Survey (SLDHS 2008) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the SLDHS 2008 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the SLDHS 2008 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the SLDHS 2008 is a Macro SAS procedure. This procedure used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y , and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2} \sum_{h=1}^H \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}, \text{ and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H ,
 m_h is the total number of clusters selected in the h^{th} stratum,
 y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
 x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
 f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the SLDHS 2008, there were 353 non-empty clusters. Hence, 353 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^k (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 353 clusters,
 $r_{(i)}$ is the estimate computed from the reduced sample of 352 clusters (i^{th} cluster excluded), and
 k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is calculated, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. The relative standard error and confidence limits for the estimates are also calculated.

Sampling errors for the SLDHS 2008 are calculated for selected variables considered to be of primary interest for the women's survey and for the men's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, for each of the four geographical regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.8 present the value of the statistic (R), its standard error (SE), the number of unweighted (N-UNWE) and weighted (N-WEIG) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ($R \pm 2SE$), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate and total abortion rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing.

The confidence interval (e.g., as calculated for *children ever born to women aged 40-49*) can be interpreted as follows: the overall average from the national sample is 5.538 and its standard error is 0.114. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., $5.538 \pm 2 \times 0.114$. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 40 to 49 is between 5.310 and 5.766.

For the total sample, the value of the DEFT, averaged over all variables, is 1.5. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.5 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Sierra Leone 2008

Variable	Estimate	Base population
WOMEN		
Urban residence	Proportion	All women 15-49
No education	Proportion	All women 15-49
With secondary education or higher	Proportion	All women 15-49
Never married (in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Had first sex before age 18	Proportion	All women 20-49
Currently pregnant	Proportion	All women 15-49
Children ever born to women 15-49	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 40-49
Children surviving	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Using public sector source	Proportion	Current users of modern methods
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49 with numeric response
Mother protected against tetanus	Proportion	Last births in last 5 years
Mother received medical assistance at delivery	Proportion	Births in last 5 years
Child had diarrhea in the last 2 weeks	Proportion	Children under 5
Child treated with ORS packets	Proportion	Children under 5 with diarrhea in last 2 weeks
Child consulted with medical personnel	Proportion	Children under 5 with diarrhea in last 2 weeks
Child having health card, seen	Proportion	Children 12-23 months
Child received BCG vaccination	Proportion	Children 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children 12-23 months
Child received measles vaccination	Proportion	Children 12-23 months
Child fully immunized	Proportion	Children 12-23 months
Height-for-age (-2SD)	Proportion	Children under 5 who are measured
Weight-for-height (-2SD)	Proportion	Children under 5 who are measured
Weight-for-age (-2SD)	Proportion	Children under 5 who are measured
BMI < 18.5	Proportion	Women 15-49 who were measured
Anemia children	Proportion	Children 6-59 months who were tested
Anemia women	Proportion	Women 15-49 who were tested
Has comprehensive knowledge of HIV/AIDS	Proportion	All women 15-49
Higher-risk sex last 12 months among youth	Proportion	All women 15-24 who had sex in last 12 months
Total fertility rate (last 3 years)	Rate	All women
Neonatal mortality rate (last 10 years)*	Rate	Number of births in last 5 (10 years)
Postneonatal mortality rate (last 10 years)*	Rate	Number of births in last 5 (10 years)
Infant mortality rate (last 10 years)*	Rate	Number of births in last 5 (10 years)
Child mortality rate (last 10 years)*	Rate	Number of births in last 5 (10 years)
Under-five mortality rate (last 10 years)*	Rate	Number of births in last 5 (10 years)
Maternal mortality ratio (0-6 years)**	Ratio	Number of births in last 7 years
HIV prevalence	Proportion	All women 15-49 who were tested
MEN		
Urban residence	Proportion	All men 15-49
No education	Proportion	All men 15-49
With secondary education or higher	Proportion	All men 15-49
Never married (in union)	Proportion	All men 15-49
Currently married (in union)	Proportion	All men 15-49
Had first sex before age 18	Proportion	All men 20-49
Knowing any contraceptive method	Proportion	Currently married men 15-49
Knowing any modern contraceptive method	Proportion	Currently married men 15-49
Ever used any contraceptive method	Proportion	Currently married men 15-49
Want no more children	Proportion	Currently married men 15-49
Want to delay at least 2 years	Proportion	Currently married men 15-49
Ideal number of children	Mean	All men 15-49 with numeric response
Has comprehensive knowledge of HIV	Proportion	All men 15-49
Higher-risk sex last 12 months among youth	Proportion	All men 15-24 who had sex in last 12 months
HIV prevalence	Proportion	All men 15-49 who were tested
MEN AND WOMEN		
HIV prevalence	Proportion	All women and men 15-49 who were tested

* Childhood mortality rates calculated for 0-4 years at the national level and 0-9 years for sub-national data.

** Maternal mortality ratio is calculated only for the total sample.

Table B.2 Sampling errors: Total sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	0.360	0.017	7374	7374	3.023	0.047	0.326	0.394
No education	0.659	0.011	7374	7374	2.041	0.017	0.637	0.682
With secondary education or higher	0.211	0.009	7374	7374	1.911	0.043	0.193	0.229
Never married/in union	0.190	0.008	7374	7374	1.708	0.041	0.174	0.205
Currently married/in union	0.749	0.009	7374	7374	1.700	0.011	0.732	0.766
Had sex before age of 18	0.672	0.008	6111	6176	1.369	0.012	0.656	0.689
Currently pregnant	0.081	0.004	7374	7374	1.259	0.049	0.073	0.089
Children ever born	2.982	0.047	7374	7374	1.594	0.016	2.887	3.077
Children ever born to women over 40	5.538	0.114	1178	1172	1.443	0.021	5.310	5.766
Children surviving	2.397	0.034	7374	7374	1.447	0.014	2.329	2.465
Knowing any contraceptive method	0.728	0.014	5373	5525	2.315	0.019	0.700	0.756
Knowing any modern contraceptive method	0.662	0.016	5373	5525	2.537	0.025	0.629	0.695
Ever used any contraceptive method	0.214	0.010	5373	5525	1.759	0.046	0.194	0.234
Currently using any method	0.082	0.005	5373	5525	1.361	0.062	0.072	0.092
Currently using a modern method	0.067	0.005	5373	5525	1.426	0.072	0.058	0.077
Currently using pill	0.023	0.003	5373	5525	1.232	0.108	0.018	0.029
Currently using condoms	0.006	0.001	5373	5525	1.149	0.204	0.003	0.008
Currently using injectables	0.029	0.003	5373	5525	1.322	0.105	0.023	0.035
Currently using periodic abstinence	0.002	0.001	5373	5525	1.008	0.314	0.001	0.003
Using public sector source	0.504	0.022	639	560	1.090	0.043	0.461	0.547
Want no more children	0.304	0.007	5373	5525	1.175	0.024	0.289	0.318
Want to delay at least 2 years	0.245	0.007	5373	5525	1.228	0.029	0.230	0.259
Ideal number of children	4.970	0.048	7029	6972	1.804	0.010	4.875	5.065
Mothers protected against tetanus for last birth	0.790	0.012	3980	4103	1.847	0.015	0.767	0.814
Mothers received medical assistance at delivery	0.424	0.016	5631	5811	2.013	0.037	0.393	0.456
Had diarrhea in the last 2 weeks	0.130	0.009	5043	5213	1.767	0.066	0.112	0.147
Treated with oral rehydration salts (ORS)	0.680	0.025	590	676	1.360	0.037	0.629	0.731
Taken to health provider	0.470	0.031	590	676	1.557	0.066	0.408	0.533
Having health card, seen	0.600	0.019	1032	1060	1.204	0.031	0.563	0.637
Received BCG vaccination	0.820	0.016	1032	1060	1.352	0.020	0.788	0.853
Received DPT vaccination (3 doses)	0.603	0.021	1032	1060	1.331	0.034	0.562	0.644
Received polio vaccination (3 doses)	0.496	0.021	1032	1060	1.315	0.042	0.455	0.538
Received measles vaccination	0.597	0.023	1032	1060	1.502	0.039	0.551	0.644
Fully immunized	0.398	0.021	1032	1060	1.389	0.054	0.356	0.441
Height-for-age (below -2SD)	0.364	0.013	2595	2764	1.304	0.035	0.338	0.389
Weight-for-height (below -2SD)	0.102	0.006	2595	2764	1.084	0.064	0.089	0.115
Weight-for-age (below -2SD)	0.211	0.012	2595	2764	1.386	0.055	0.188	0.234
Anemia children	0.759	0.013	2494	2653	1.435	0.016	0.734	0.784
Anemia women	0.452	0.011	3364	3365	1.326	0.025	0.429	0.475
BMI < 18.5	0.112	0.008	3141	3105	1.369	0.069	0.097	0.128
Has comprehensive knowledge of HIV/AIDS	0.140	0.007	7374	7374	1.735	0.050	0.126	0.154
Higher-risk sex last 12 months among youth	0.426	0.021	1547	1486	1.691	0.050	0.383	0.469
Total fertility rate (last 3 years)	5.123	0.139	na	21031	1.505	0.027	4.845	5.401
Neonatal mortality (last 0-4 years)	36.050	3.231	5659	5823	1.218	0.090	29.589	42.511
Post-neonatal mortality (last 0-4 years)	52.829	4.070	5696	5871	1.322	0.077	44.688	60.969
Infant mortality (last 0-4 years)	88.878	5.279	5689	5856	1.273	0.059	78.320	99.437
Child mortality (last 0-4 years)	55.880	4.148	5388	5606	1.290	0.074	47.584	64.176
Under-five mortality (last 0-4 years)	139.792	6.571	5811	5989	1.328	0.047	126.650	152.934
Maternal mortality ratio (last 0-6 years)	857	121	61307	62082	1.192	0.141	615	1099
HIV prevalence	0.017	0.003	3466	3448	1.165	0.149	0.012	0.022
MEN								
Urban residence	0.381	0.017	2961	2944	1.919	0.045	0.347	0.416
No education	0.484	0.014	2961	2944	1.516	0.029	0.456	0.512
With secondary education or higher	0.375	0.014	2961	2944	1.598	0.038	0.347	0.404
Never married/in union	0.368	0.013	2961	2944	1.518	0.037	0.342	0.395
Currently married/in union	0.600	0.013	2961	2944	1.444	0.022	0.574	0.626
Had sex before age of 18	0.392	0.013	2412	2418	1.323	0.034	0.366	0.418
Knowing any contraceptive method	0.853	0.013	1739	1767	1.526	0.015	0.827	0.879
Knowing any modern contraceptive method	0.837	0.014	1739	1767	1.534	0.016	0.810	0.864
Ever used any contraceptive method	0.294	0.016	1739	1767	1.445	0.054	0.263	0.326
Want no more children	0.180	0.012	1739	1767	1.251	0.064	0.157	0.203
Want to delay at least 2 years	0.264	0.013	1739	1767	1.257	0.050	0.237	0.291
Ideal number of children	5.471	0.126	2867	2837	1.773	0.023	5.218	5.723
Has comprehensive knowledge of HIV/AIDS	0.249	0.014	2961	2944	1.712	0.055	0.221	0.276
Higher-risk sex last 12 months among youth	0.818	0.022	528	493	1.316	0.027	0.773	0.862
HIV prevalence	0.012	0.002	2719	2726	1.160	0.200	0.007	0.017
MEN AND WOMEN								
HIV prevalence	0.015	0.002	6185	6174	1.285	0.132	0.011	0.019

Table B.3 Sampling errors: Urban sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	1.000	0.000	3160	2655	na	0.000	1.000	1.000
No education	0.383	0.020	3160	2655	2.296	0.052	0.344	0.423
With secondary education or higher	0.461	0.019	3160	2655	2.123	0.041	0.423	0.498
Never married/in union	0.342	0.016	3160	2655	1.842	0.045	0.311	0.373
Currently married/in union	0.588	0.016	3160	2655	1.829	0.027	0.556	0.620
Had sex before age of 18	0.598	0.014	2476	2104	1.450	0.024	0.569	0.627
Currently pregnant	0.065	0.006	3160	2655	1.334	0.090	0.053	0.076
Children ever born	2.343	0.071	3160	2655	1.696	0.030	2.201	2.485
Children ever born to women over 40	4.947	0.173	419	334	1.373	0.035	4.600	5.293
Children surviving	1.920	0.054	3160	2655	1.579	0.028	1.813	2.028
Knowing any contraceptive method	0.848	0.018	1874	1561	2.210	0.022	0.811	0.884
Knowing any modern contraceptive method	0.813	0.032	1874	1561	3.561	0.040	0.749	0.878
Ever used any contraceptive method	0.389	0.025	1874	1561	2.233	0.065	0.339	0.439
Currently using any method	0.162	0.014	1874	1561	1.679	0.088	0.134	0.191
Currently using a modern method	0.142	0.014	1874	1561	1.688	0.096	0.115	0.170
Currently using pill	0.056	0.008	1874	1561	1.465	0.139	0.040	0.072
Currently using condoms	0.015	0.004	1874	1561	1.300	0.244	0.008	0.022
Currently using injectables	0.056	0.007	1874	1561	1.389	0.131	0.041	0.071
Currently using periodic abstinence	0.007	0.002	1874	1561	1.138	0.318	0.002	0.011
Using public sector source	0.415	0.025	464	393	1.073	0.059	0.366	0.464
Want no more children	0.328	0.013	1874	1561	1.214	0.040	0.302	0.354
Want to delay at least 2 years	0.238	0.012	1874	1561	1.266	0.052	0.213	0.263
Ideal number of children	4.163	0.065	3055	2551	2.060	0.016	4.033	4.293
Mothers protected against tetanus for last birth	0.873	0.011	1434	1183	1.236	0.013	0.851	0.894
Mothers received medical assistance at delivery	0.669	0.023	1920	1585	1.801	0.034	0.624	0.715
Had diarrhea in the last 2 weeks	0.109	0.010	1690	1397	1.213	0.088	0.090	0.129
Treated with oral rehydration salts (ORS)	0.784	0.032	178	153	1.061	0.041	0.720	0.847
Taken to health provider	0.482	0.041	178	153	1.047	0.085	0.400	0.564
Having health card, seen	0.583	0.033	329	269	1.190	0.056	0.517	0.649
Received BCG vaccination	0.890	0.022	329	269	1.254	0.025	0.847	0.934
Received DPT vaccination (3 doses)	0.698	0.033	329	269	1.269	0.047	0.633	0.764
Received polio vaccination (3 doses)	0.534	0.036	329	269	1.278	0.067	0.462	0.606
Received measles vaccination	0.645	0.034	329	269	1.287	0.053	0.576	0.714
Fully immunized	0.404	0.042	329	269	1.512	0.103	0.321	0.488
Height-for-age (below -2SD)	0.297	0.027	881	750	1.659	0.093	0.242	0.352
Weight-for-height (below -2SD)	0.113	0.014	881	750	1.317	0.126	0.085	0.142
Weight-for-age (below -2SD)	0.157	0.023	881	750	1.796	0.147	0.111	0.204
Anemia children	0.727	0.027	840	734	1.736	0.037	0.672	0.781
Anemia women	0.467	0.019	1370	1138	1.365	0.040	0.430	0.504
BMI < 18.5	0.081	0.011	1334	1102	1.522	0.142	0.058	0.104
Has comprehensive knowledge of HIV/AIDS	0.255	0.016	3160	2655	2.037	0.062	0.224	0.287
Higher-risk sex last 12 months among youth	0.640	0.025	814	675	1.477	0.039	0.591	0.690
Total fertility rate (last 3 years)	3.794	0.182	na	7460	1.580	0.048	3.430	4.158
Neonatal mortality (last 0-9 years)	49.131	4.935	3809	3181	1.174	0.100	39.262	59.001
Post-neonatal mortality (last 0-9 years)	56.491	6.524	3825	3200	1.576	0.115	43.443	69.539
Infant mortality (last 0-9 years)	105.623	9.817	3820	3194	1.623	0.093	85.988	125.258
Child mortality (last 0-9 years)	68.423	5.617	3681	3103	1.250	0.082	57.189	79.656
Under-five mortality (last 0-9 years)	166.819	10.631	3852	3222	1.458	0.064	145.556	188.081
HIV prevalence	0.027	0.005	1427	1205	1.169	0.186	0.017	0.037
MEN								
Urban residence	1.000	0.000	1295	1123	na	0.000	1.000	1.000
No education	0.213	0.017	1295	1123	1.501	0.080	0.179	0.247
With secondary education or higher	0.675	0.018	1295	1123	1.376	0.027	0.639	0.710
Never married/in union	0.500	0.024	1295	1123	1.710	0.048	0.452	0.548
Currently married/in union	0.460	0.022	1295	1123	1.595	0.048	0.416	0.504
Had sex before age of 18	0.406	0.018	992	858	1.146	0.044	0.370	0.442
Knowing any contraceptive method	0.957	0.010	596	517	1.247	0.011	0.937	0.978
Knowing any modern contraceptive method	0.950	0.011	596	517	1.205	0.011	0.929	0.972
Ever used any contraceptive method	0.523	0.033	596	517	1.633	0.064	0.456	0.590
Want no more children	0.256	0.023	596	517	1.263	0.088	0.211	0.302
Want to delay at least 2 years	0.276	0.024	596	517	1.283	0.085	0.229	0.324
Ideal number of children	4.111	0.123	1259	1093	1.533	0.030	3.865	4.357
Has comprehensive knowledge of HIV/AIDS	0.388	0.023	1295	1123	1.719	0.060	0.341	0.434
Higher-risk sex last 12 months among youth	0.885	0.025	328	276	1.436	0.029	0.834	0.935
HIV prevalence	0.022	0.005	1152	1040	1.226	0.239	0.012	0.033
MEN AND WOMEN								
HIV prevalence	0.025	0.004	2579	2245	1.348	0.167	0.016	0.033

Table B.4 Sampling errors: Rural sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	0.000	0.000	4214	4719	na	na	0.000	0.000
No education	0.814	0.010	4214	4719	1.649	0.012	0.795	0.834
With secondary education or higher	0.070	0.006	4214	4719	1.643	0.092	0.057	0.083
Never married/in union	0.104	0.006	4214	4719	1.322	0.060	0.092	0.116
Currently married/in union	0.840	0.008	4214	4719	1.377	0.009	0.825	0.856
Had sex before age of 18	0.711	0.010	3635	4072	1.307	0.014	0.691	0.731
Currently pregnant	0.090	0.005	4214	4719	1.218	0.060	0.080	0.101
Children ever born	3.342	0.060	4214	4719	1.497	0.018	3.222	3.461
Children ever born to women over 40	5.774	0.139	759	837	1.400	0.024	5.497	6.051
Children surviving	2.665	0.042	4214	4719	1.355	0.016	2.581	2.750
Knowing any contraceptive method	0.681	0.018	3499	3965	2.290	0.027	0.645	0.717
Knowing any modern contraceptive method	0.602	0.020	3499	3965	2.378	0.033	0.563	0.642
Ever used any contraceptive method	0.145	0.010	3499	3965	1.629	0.067	0.125	0.164
Currently using any method	0.050	0.004	3499	3965	1.191	0.087	0.042	0.059
Currently using a modern method	0.038	0.004	3499	3965	1.255	0.107	0.030	0.046
Currently using pill	0.011	0.002	3499	3965	1.138	0.186	0.007	0.015
Currently using condoms	0.002	0.001	3499	3965	1.071	0.377	0.001	0.004
Currently using injectables	0.018	0.003	3499	3965	1.242	0.155	0.013	0.024
Currently using periodic abstinence	0.000	0.000	3499	3965	na	na	0.000	0.000
Using public sector source	0.715	0.037	175	167	1.079	0.052	0.641	0.789
Want no more children	0.294	0.009	3499	3965	1.140	0.030	0.276	0.311
Want to delay at least 2 years	0.247	0.009	3499	3965	1.197	0.035	0.230	0.265
Ideal number of children	5.435	0.057	3974	4421	1.552	0.010	5.321	5.549
Mothers protected against tetanus for last birth	0.757	0.016	2546	2920	1.881	0.021	0.725	0.789
Mothers received medical assistance at delivery	0.332	0.018	3711	4226	1.935	0.054	0.297	0.368
Had diarrhea in the last 2 weeks	0.137	0.011	3353	3817	1.819	0.081	0.115	0.159
Treated with oral rehydration salts (ORS)	0.650	0.032	412	523	1.382	0.049	0.586	0.713
Taken to health provider	0.467	0.038	412	523	1.619	0.082	0.390	0.544
Having health card, seen	0.606	0.022	703	791	1.181	0.037	0.561	0.650
Received BCG vaccination	0.797	0.020	703	791	1.323	0.026	0.756	0.837
Received DPT vaccination (3 doses)	0.570	0.025	703	791	1.299	0.043	0.521	0.620
Received polio vaccination (3 doses)	0.484	0.025	703	791	1.286	0.051	0.434	0.533
Received measles vaccination	0.581	0.029	703	791	1.505	0.049	0.524	0.638
Fully immunized	0.396	0.025	703	791	1.322	0.063	0.347	0.446
Height-for-age (below -2SD)	0.389	0.015	1714	2014	1.197	0.037	0.360	0.418
Weight-for-height (below -2SD)	0.098	0.007	1714	2014	0.975	0.073	0.083	0.112
Weight-for-age (below -2SD)	0.231	0.014	1714	2014	1.278	0.059	0.204	0.259
Anemia children	0.771	0.014	1654	1919	1.323	0.018	0.742	0.799
Anemia women	0.445	0.014	1994	2227	1.283	0.032	0.416	0.473
BMI < 18.5	0.130	0.010	1807	2003	1.256	0.077	0.110	0.150
Has comprehensive knowledge of HIV/AIDS	0.075	0.007	4214	4719	1.608	0.087	0.062	0.088
Higher-risk sex last 12 months among youth	0.248	0.022	733	812	1.349	0.087	0.205	0.291
Total fertility rate (last 3 years)	5.845	0.159	na	13571	1.396	0.027	5.527	6.162
Neonatal mortality (last 0-9 years)	48.541	3.891	7690	8813	1.267	0.080	40.758	56.323
Post-neonatal mortality (last 0-9 years)	64.563	4.326	7762	8894	1.348	0.067	55.912	73.215
Infant mortality (last 0-9 years)	113.104	6.618	7721	8850	1.447	0.059	99.868	126.340
Child mortality (last 0-9 years)	62.137	3.964	7567	8688	1.132	0.064	54.210	70.065
Under-five mortality (last 0-9 years)	168.213	8.364	7813	8954	1.564	0.050	151.486	184.941
HIV prevalence	0.012	0.003	2039	2243	1.237	0.247	0.006	0.018
MEN								
Urban residence	0.000	0.000	1666	1822	na	na	0.000	0.000
No education	0.652	0.016	1666	1822	1.380	0.025	0.619	0.684
With secondary education or higher	0.190	0.014	1666	1822	1.497	0.076	0.162	0.219
Never married/in union	0.287	0.015	1666	1822	1.333	0.051	0.258	0.317
Currently married/in union	0.686	0.015	1666	1822	1.277	0.021	0.657	0.715
Had sex before age of 18	0.384	0.018	1420	1560	1.381	0.046	0.349	0.420
Knowing any contraceptive method	0.810	0.017	1143	1250	1.497	0.021	0.776	0.845
Knowing any modern contraceptive method	0.790	0.018	1143	1250	1.511	0.023	0.753	0.826
Ever used any contraceptive method	0.199	0.016	1143	1250	1.359	0.081	0.167	0.232
Want no more children	0.148	0.013	1143	1250	1.221	0.087	0.122	0.174
Want to delay at least 2 years	0.259	0.016	1143	1250	1.240	0.062	0.227	0.291
Ideal number of children	6.323	0.180	1608	1745	1.765	0.028	5.963	6.682
Has comprehensive knowledge of HIV/AIDS	0.163	0.016	1666	1822	1.738	0.097	0.131	0.194
Higher-risk sex last 12 months among youth	0.733	0.039	200	217	1.241	0.053	0.655	0.811
HIV prevalence	0.006	0.002	1567	1686	1.151	0.372	0.002	0.011
MEN AND WOMEN								
HIV prevalence	0.010	0.002	3606	3929	1.338	0.227	0.005	0.014

Table B.5 Sampling errors: Eastern sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	0.257	0.023	1759	1325	2.235	0.091	0.210	0.304
No education	0.708	0.020	1759	1325	1.804	0.028	0.669	0.747
With secondary education or higher	0.136	0.014	1759	1325	1.757	0.106	0.107	0.165
Never married/in union	0.163	0.013	1759	1325	1.498	0.081	0.137	0.190
Currently married/in union	0.776	0.014	1759	1325	1.368	0.018	0.749	0.803
Had sex before age of 18	0.704	0.017	1428	1096	1.372	0.024	0.671	0.737
Currently pregnant	0.078	0.008	1759	1325	1.320	0.108	0.061	0.095
Children ever born	2.987	0.081	1759	1325	1.457	0.027	2.824	3.150
Children ever born to women over 40	5.220	0.232	248	193	1.459	0.044	4.757	5.684
Children surviving	2.458	0.059	1759	1325	1.304	0.024	2.340	2.576
Knowing any contraceptive method	0.723	0.032	1324	1028	2.581	0.044	0.660	0.787
Knowing any modern contraceptive method	0.708	0.032	1324	1028	2.530	0.045	0.645	0.772
Ever used any contraceptive method	0.206	0.023	1324	1028	2.092	0.113	0.159	0.253
Currently using any method	0.062	0.008	1324	1028	1.205	0.129	0.046	0.078
Currently using a modern method	0.054	0.008	1324	1028	1.306	0.151	0.037	0.070
Currently using pill	0.027	0.005	1324	1028	1.176	0.195	0.016	0.037
Currently using condoms	0.004	0.002	1324	1028	1.139	0.484	0.000	0.008
Currently using injectables	0.018	0.004	1324	1028	1.124	0.226	0.010	0.027
Currently using periodic abstinence	0.001	0.001	1324	1028	1.319	0.996	0.000	0.004
Using public sector source	0.486	0.052	112	69	1.093	0.107	0.382	0.590
Want no more children	0.358	0.013	1324	1028	1.015	0.037	0.331	0.385
Want to delay at least 2 years	0.253	0.013	1324	1028	1.111	0.053	0.226	0.279
Ideal number of children	4.865	0.080	1734	1302	1.535	0.016	4.704	5.025
Mothers protected against tetanus for last birth	0.878	0.011	1041	809	1.119	0.013	0.855	0.900
Mothers received medical assistance at delivery	0.501	0.031	1492	1170	1.968	0.061	0.440	0.563
Had diarrhea in the last 2 weeks	0.114	0.013	1352	1067	1.495	0.119	0.087	0.141
Treated with oral rehydration salts (ORS)	0.625	0.052	148	121	1.278	0.083	0.522	0.729
Taken to health provider	0.335	0.058	148	121	1.496	0.174	0.219	0.452
Having health card, seen	0.669	0.035	287	225	1.218	0.052	0.600	0.738
Received BCG vaccination	0.887	0.032	287	225	1.607	0.036	0.823	0.950
Received DPT vaccination (3 doses)	0.665	0.038	287	225	1.331	0.057	0.590	0.741
Received polio vaccination (3 doses)	0.567	0.035	287	225	1.191	0.063	0.496	0.638
Received measles vaccination	0.632	0.044	287	225	1.512	0.069	0.544	0.719
Fully immunized	0.474	0.037	287	225	1.218	0.077	0.401	0.547
Height-for-age (below -2SD)	0.336	0.024	626	507	1.208	0.070	0.289	0.383
Weight-for-height (below -2SD)	0.099	0.014	626	507	1.206	0.145	0.070	0.128
Weight-for-age (below -2SD)	0.177	0.019	626	507	1.187	0.104	0.140	0.214
Anemia children	0.744	0.029	570	478	1.555	0.039	0.686	0.803
Anemia women	0.430	0.023	715	530	1.218	0.053	0.384	0.475
BMI < 18.5	0.082	0.015	735	538	1.473	0.184	0.052	0.112
Has comprehensive knowledge of HIV/AIDS	0.127	0.014	1759	1325	1.823	0.114	0.098	0.155
Higher-risk sex last 12 months among youth	0.413	0.036	382	265	1.441	0.088	0.340	0.485
Total fertility rate (last 3 years)	5.623	0.226	na	3783	1.411	0.040	5.171	6.075
Neonatal mortality (last 0-9 years)	39.435	4.811	2918	2302	1.309	0.122	29.814	49.057
Post-neonatal mortality (last 0-9 years)	55.858	5.281	2926	2305	1.215	0.095	45.297	66.419
Infant mortality (last 0-9 years)	95.293	7.031	2923	2307	1.263	0.074	81.231	109.355
Child mortality (last 0-9 years)	57.057	6.124	2806	2222	1.066	0.107	44.809	69.305
Under-five mortality (last 0-9 years)	146.913	9.821	2947	2327	1.330	0.067	127.271	166.555
HIV prevalence	0.016	0.004	809	601	0.892	0.245	0.008	0.024
MEN								
Urban residence	0.230	0.023	740	557	1.477	0.099	0.184	0.276
No education	0.571	0.027	740	557	1.467	0.047	0.517	0.624
With secondary education or higher	0.230	0.024	740	557	1.541	0.104	0.182	0.278
Never married/in union	0.271	0.024	740	557	1.472	0.089	0.222	0.319
Currently married/in union	0.687	0.024	740	557	1.406	0.035	0.639	0.735
Had sex before age of 18	0.309	0.030	621	478	1.598	0.096	0.250	0.368
Knowing any contraceptive method	0.909	0.017	482	382	1.299	0.019	0.874	0.943
Knowing any modern contraceptive method	0.895	0.017	482	382	1.221	0.019	0.860	0.929
Ever used any contraceptive method	0.201	0.024	482	382	1.313	0.119	0.153	0.249
Want no more children	0.184	0.021	482	382	1.161	0.112	0.143	0.225
Want to delay at least 2 years	0.252	0.023	482	382	1.146	0.090	0.207	0.298
Ideal number of children	5.464	0.143	718	540	1.309	0.026	5.177	5.751
Has comprehensive knowledge of HIV/AIDS	0.142	0.017	740	557	1.313	0.119	0.108	0.175
Higher-risk sex last 12 months among youth	0.850	0.045	101	64	1.264	0.053	0.760	0.941
HIV prevalence	0.011	0.004	686	510	1.093	0.395	0.002	0.020
MEN AND WOMEN								
HIV prevalence	0.014	0.003	1495	1111	1.158	0.253	0.007	0.021

Table B.6 Sampling errors: Northern sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	0.202	0.037	2165	3001	4.267	0.183	0.128	0.276
No education	0.771	0.021	2165	3001	2.270	0.027	0.730	0.812
With secondary education or higher	0.121	0.016	2165	3001	2.264	0.131	0.090	0.153
Never married/in union	0.131	0.014	2165	3001	1.880	0.104	0.103	0.158
Currently married/in union	0.811	0.015	2165	3001	1.829	0.019	0.780	0.842
Had sex before age of 18	0.704	0.014	1830	2541	1.339	0.020	0.675	0.732
Currently pregnant	0.086	0.007	2165	3001	1.148	0.081	0.072	0.100
Children ever born	3.363	0.082	2165	3001	1.411	0.024	3.199	3.527
Children ever born to women over 40	6.217	0.171	367	499	1.272	0.028	5.875	6.559
Children surviving	2.669	0.056	2165	3001	1.241	0.021	2.558	2.781
Knowing any contraceptive method	0.665	0.025	1741	2434	2.241	0.038	0.614	0.716
Knowing any modern contraceptive method	0.561	0.031	1741	2434	2.587	0.055	0.499	0.622
Ever used any contraceptive method	0.116	0.010	1741	2434	1.242	0.082	0.096	0.135
Currently using any method	0.044	0.005	1741	2434	1.023	0.114	0.034	0.054
Currently using a modern method	0.031	0.004	1741	2434	1.027	0.138	0.022	0.039
Currently using pill	0.007	0.002	1741	2434	1.119	0.328	0.002	0.011
Currently using condoms	0.004	0.001	1741	2434	1.009	0.407	0.001	0.006
Currently using injectables	0.019	0.004	1741	2434	1.100	0.189	0.012	0.026
Currently using periodic abstinence	0.000	0.000	1741	2434	0.641	1.005	0.000	0.001
Using public sector source	0.619	0.054	99	127	1.095	0.087	0.512	0.727
Want no more children	0.287	0.013	1741	2434	1.172	0.044	0.262	0.313
Want to delay at least 2 years	0.253	0.012	1741	2434	1.192	0.049	0.228	0.278
Ideal number of children	5.417	0.087	2011	2786	1.775	0.016	5.242	5.591
Mothers protected against tetanus for last birth	0.692	0.023	1326	1869	1.798	0.033	0.646	0.737
Mothers received medical assistance at delivery	0.274	0.026	1850	2623	2.166	0.096	0.221	0.327
Had diarrhea in the last 2 weeks	0.158	0.016	1668	2354	1.777	0.104	0.125	0.190
Treated with oral rehydration salts (ORS)	0.670	0.039	239	371	1.315	0.058	0.593	0.748
Taken to health provider	0.479	0.047	239	371	1.484	0.098	0.386	0.572
Having health card, seen	0.569	0.032	335	473	1.148	0.055	0.506	0.632
Received BCG vaccination	0.752	0.031	335	473	1.312	0.041	0.690	0.814
Received DPT vaccination (3 doses)	0.491	0.037	335	473	1.326	0.075	0.417	0.564
Received polio vaccination (3 doses)	0.421	0.037	335	473	1.353	0.087	0.347	0.495
Received measles vaccination	0.517	0.043	335	473	1.547	0.083	0.431	0.603
Fully immunized	0.331	0.040	335	473	1.532	0.120	0.252	0.411
Height-for-age (below -2SD)	0.395	0.020	948	1328	1.246	0.052	0.354	0.436
Weight-for-height (below -2SD)	0.086	0.009	948	1328	0.945	0.106	0.068	0.104
Weight-for-age (below -2SD)	0.235	0.019	948	1328	1.306	0.080	0.197	0.273
Anemia children	0.793	0.018	875	1217	1.302	0.023	0.757	0.829
Anemia women	0.452	0.019	1012	1397	1.206	0.042	0.414	0.490
BMI < 18.5	0.091	0.011	931	1270	1.162	0.122	0.069	0.113
Has comprehensive knowledge of HIV/AIDS	0.094	0.010	2165	3001	1.618	0.108	0.074	0.114
Higher-risk sex last 12 months among youth	0.344	0.044	399	544	1.852	0.129	0.255	0.432
Total fertility rate (last 3 years)	5.777	0.243	na	8628	1.401	0.042	5.290	6.264
Neonatal mortality (last 0-9 years)	53.533	5.585	3894	5548	1.168	0.104	42.363	64.703
Post-neonatal mortality (last 0-9 years)	59.683	6.156	3935	5606	1.375	0.103	47.370	71.995
Infant mortality (last 0-9 years)	113.216	9.994	3909	5573	1.462	0.088	93.227	133.204
Child mortality (last 0-9 years)	66.941	5.456	3861	5505	1.141	0.082	56.029	77.853
Under-five mortality (last 0-9 years)	172.578	11.614	3947	5629	1.471	0.067	149.351	195.805
HIV prevalence	0.014	0.004	1018	1433	1.103	0.288	0.006	0.022
MEN								
Urban residence	0.214	0.031	819	1131	2.132	0.143	0.153	0.276
No education	0.582	0.025	819	1131	1.468	0.044	0.531	0.633
With secondary education or higher	0.286	0.025	819	1131	1.606	0.089	0.235	0.336
Never married/in union	0.375	0.026	819	1131	1.534	0.069	0.323	0.427
Currently married/in union	0.609	0.025	819	1131	1.478	0.041	0.558	0.659
Had sex before age of 18	0.350	0.023	654	901	1.239	0.066	0.303	0.396
Knowing any contraceptive method	0.801	0.027	511	689	1.502	0.033	0.747	0.854
Knowing any modern contraceptive method	0.788	0.027	511	689	1.474	0.034	0.735	0.841
Ever used any contraceptive method	0.192	0.025	511	689	1.423	0.129	0.142	0.242
Want no more children	0.114	0.019	511	689	1.342	0.166	0.076	0.152
Want to delay at least 2 years	0.259	0.025	511	689	1.269	0.095	0.210	0.308
Ideal number of children	6.625	0.281	779	1074	1.721	0.042	6.064	7.187
Has comprehensive knowledge of HIV/AIDS	0.243	0.026	819	1131	1.743	0.108	0.191	0.296
Higher-risk sex last 12 months among youth	0.767	0.046	130	178	1.221	0.059	0.675	0.858
HIV prevalence	0.009	0.004	744	1055	1.085	0.412	0.002	0.017
MEN AND WOMEN								
HIV prevalence	0.012	0.003	1762	2488	1.232	0.266	0.006	0.018

Table B.7 Sampling errors: Southern sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	0.211	0.029	1835	1542	2.994	0.135	0.154	0.268
No education	0.726	0.023	1835	1542	2.212	0.032	0.680	0.772
With secondary education or higher	0.136	0.016	1835	1542	2.013	0.118	0.104	0.168
Never married/in union	0.160	0.013	1835	1542	1.472	0.079	0.134	0.185
Currently married/in union	0.782	0.015	1835	1542	1.564	0.019	0.752	0.812
Had sex before age of 18	0.692	0.015	1534	1303	1.275	0.022	0.662	0.722
Currently pregnant	0.104	0.009	1835	1542	1.282	0.088	0.086	0.123
Children ever born	2.994	0.101	1835	1542	1.739	0.034	2.791	3.197
Children ever born to women over 40	5.143	0.216	321	264	1.348	0.042	4.710	5.575
Children surviving	2.382	0.088	1835	1542	1.860	0.037	2.207	2.558
Knowing any contraceptive method	0.753	0.021	1377	1206	1.776	0.027	0.712	0.795
Knowing any modern contraceptive method	0.676	0.023	1377	1206	1.797	0.034	0.631	0.722
Ever used any contraceptive method	0.216	0.022	1377	1206	1.941	0.100	0.173	0.259
Currently using any method	0.084	0.010	1377	1206	1.342	0.119	0.064	0.104
Currently using a modern method	0.068	0.010	1377	1206	1.425	0.142	0.049	0.088
Currently using pill	0.024	0.005	1377	1206	1.099	0.188	0.015	0.033
Currently using condoms	0.001	0.001	1377	1206	0.948	0.685	0.000	0.003
Currently using injectables	0.023	0.005	1377	1206	1.342	0.235	0.012	0.034
Currently using periodic abstinence	0.001	0.001	1377	1206	0.710	0.699	0.000	0.002
Using public sector source	0.663	0.044	139	93	1.095	0.066	0.575	0.751
Want no more children	0.276	0.014	1377	1206	1.144	0.050	0.249	0.304
Want to delay at least 2 years	0.236	0.013	1377	1206	1.178	0.057	0.209	0.262
Ideal number of children	5.344	0.089	1736	1442	1.569	0.017	5.166	5.523
Mothers protected against tetanus for last birth	0.872	0.020	908	783	1.779	0.023	0.833	0.911
Mothers received medical assistance at delivery	0.532	0.034	1358	1187	2.027	0.063	0.465	0.599
Had diarrhea in the last 2 weeks	0.099	0.012	1212	1058	1.308	0.118	0.076	0.122
Treated with oral rehydration salts (ORS)	0.688	0.059	111	105	1.306	0.085	0.571	0.806
Taken to health provider	0.584	0.062	111	105	1.360	0.107	0.459	0.709
Having health card, seen	0.631	0.037	262	227	1.254	0.059	0.556	0.706
Received BCG vaccination	0.826	0.027	262	227	1.137	0.032	0.773	0.879
Received DPT vaccination (3 doses)	0.677	0.040	262	227	1.374	0.059	0.598	0.757
Received polio vaccination (3 doses)	0.582	0.039	262	227	1.270	0.067	0.504	0.659
Received measles vaccination	0.663	0.039	262	227	1.350	0.059	0.584	0.742
Fully immunized	0.452	0.036	262	227	1.172	0.080	0.380	0.525
Height-for-age (below -2SD)	0.381	0.027	590	546	1.264	0.072	0.326	0.435
Weight-for-height (below -2SD)	0.145	0.017	590	546	1.170	0.116	0.111	0.178
Weight-for-age (below -2SD)	0.236	0.024	590	546	1.331	0.104	0.187	0.285
Anemia children	0.721	0.026	627	562	1.363	0.036	0.669	0.773
Anemia women	0.428	0.025	919	774	1.559	0.059	0.377	0.478
BMI < 18.5	0.183	0.018	791	664	1.330	0.100	0.147	0.220
Has comprehensive knowledge of HIV/AIDS	0.095	0.012	1835	1542	1.742	0.126	0.071	0.118
Higher-risk sex last 12 months among youth	0.354	0.041	374	313	1.664	0.117	0.272	0.437
Total fertility rate (last 3 years)	5.041	0.252	na	4365	1.689	0.050	4.537	5.545
Neonatal mortality (last 0-9 years)	45.306	5.193	2902	2542	1.249	0.115	34.919	55.693
Post-neonatal mortality (last 0-9 years)	76.957	7.661	2928	2567	1.459	0.100	61.636	92.278
Infant mortality (last 0-9 years)	122.263	10.009	2916	2554	1.487	0.082	102.246	142.280
Child mortality (last 0-9 years)	65.759	7.091	2879	2519	1.250	0.108	51.576	79.942
Under-five mortality (last 0-9 years)	179.982	13.974	2957	2592	1.728	0.078	152.034	207.931
HIV prevalence	0.011	0.005	921	733	1.393	0.431	0.002	0.021
MEN								
Urban residence	0.274	0.039	746	617	2.354	0.141	0.197	0.351
No education	0.553	0.033	746	617	1.789	0.059	0.487	0.618
With secondary education or higher	0.299	0.030	746	617	1.801	0.101	0.238	0.359
Never married/in union	0.341	0.024	746	617	1.403	0.072	0.292	0.390
Currently married/in union	0.629	0.024	746	617	1.377	0.039	0.580	0.678
Had sex before age of 18	0.480	0.025	615	525	1.224	0.051	0.430	0.529
Knowing any contraceptive method	0.795	0.030	434	388	1.539	0.038	0.736	0.855
Knowing any modern contraceptive method	0.757	0.035	434	388	1.699	0.046	0.687	0.827
Ever used any contraceptive method	0.333	0.036	434	388	1.591	0.108	0.261	0.405
Want no more children	0.189	0.022	434	388	1.168	0.116	0.145	0.233
Want to delay at least 2 years	0.253	0.027	434	388	1.268	0.105	0.200	0.306
Ideal number of children	5.215	0.120	732	600	1.151	0.023	4.974	5.455
Has comprehensive knowledge of HIV/AIDS	0.199	0.027	746	617	1.832	0.135	0.145	0.253
Higher-risk sex last 12 months among youth	0.746	0.048	123	91	1.210	0.064	0.651	0.842
HIV prevalence	0.005	0.002	720	569	0.942	0.520	0.000	0.009
MEN AND WOMEN								
HIV prevalence	0.008	0.003	1641	1302	1.304	0.352	0.002	0.014

Table B.8 Sampling errors: Western sample, SLDHS 2008

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
Urban residence	0.918	0.016	1615	1506	2.355	0.018	0.886	0.950
No education	0.324	0.019	1615	1506	1.609	0.058	0.286	0.361
With secondary education or higher	0.531	0.020	1615	1506	1.609	0.038	0.491	0.571
Never married/in union	0.362	0.018	1615	1506	1.499	0.050	0.326	0.397
Currently married/in union	0.569	0.019	1615	1506	1.533	0.033	0.531	0.607
Had sex before age of 18	0.559	0.018	1319	1236	1.281	0.031	0.524	0.594
Currently pregnant	0.051	0.006	1615	1506	1.182	0.127	0.038	0.064
Children ever born	2.207	0.081	1615	1506	1.439	0.037	2.044	2.369
Children ever born to women over 40	4.734	0.251	242	215	1.479	0.053	4.232	5.236
Children surviving	1.816	0.061	1615	1506	1.338	0.033	1.694	1.937
Knowing any contraceptive method	0.878	0.029	931	858	2.683	0.033	0.820	0.936
Knowing any modern contraceptive method	0.874	0.029	931	858	2.655	0.033	0.816	0.932
Ever used any contraceptive method	0.499	0.029	931	858	1.778	0.058	0.441	0.558
Currently using any method	0.212	0.020	931	858	1.469	0.093	0.172	0.251
Currently using a modern method	0.186	0.020	931	858	1.544	0.106	0.147	0.226
Currently using pill	0.066	0.012	931	858	1.410	0.174	0.043	0.089
Currently using condoms	0.021	0.006	931	858	1.235	0.277	0.009	0.032
Currently using injectables	0.077	0.012	931	858	1.381	0.157	0.053	0.101
Currently using periodic abstinence	0.009	0.003	931	858	1.090	0.374	0.002	0.016
Using public sector source	0.400	0.029	289	271	0.999	0.072	0.343	0.458
Want no more children	0.323	0.017	931	858	1.125	0.053	0.288	0.357
Want to delay at least 2 years	0.224	0.018	931	858	1.299	0.079	0.189	0.260
Ideal number of children	3.827	0.067	1548	1442	1.664	0.018	3.693	3.961
Mothers protected against tetanus for last birth	0.868	0.016	705	642	1.225	0.018	0.836	0.899
Mothers received medical assistance at delivery	0.637	0.026	931	831	1.424	0.041	0.584	0.689
Had diarrhea in the last 2 weeks	0.107	0.013	811	735	1.137	0.118	0.082	0.132
Treated with oral rehydration salts (ORS)	0.798	0.043	92	79	0.996	0.054	0.711	0.885
Taken to health provider	0.486	0.049	92	79	0.889	0.101	0.388	0.585
Having health card, seen	0.541	0.048	148	135	1.151	0.088	0.445	0.636
Received BCG vaccination	0.938	0.022	148	135	1.106	0.023	0.894	0.982
Received DPT vaccination (3 doses)	0.767	0.038	148	135	1.086	0.050	0.691	0.843
Received polio vaccination (3 doses)	0.499	0.045	148	135	1.090	0.091	0.409	0.590
Received measles vaccination	0.711	0.040	148	135	1.069	0.056	0.631	0.791
Fully immunized	0.416	0.047	148	135	1.147	0.113	0.322	0.511
Height-for-age (below -2SD)	0.269	0.026	431	383	1.126	0.097	0.217	0.321
Weight-for-height (below -2SD)	0.099	0.016	431	383	1.087	0.164	0.067	0.132
Weight-for-age (below -2SD)	0.139	0.024	431	383	1.233	0.172	0.091	0.187
Anemia children	0.722	0.034	422	396	1.510	0.047	0.654	0.790
Anemia women	0.499	0.022	718	664	1.198	0.045	0.454	0.544
BMI < 18.5	0.106	0.020	684	633	1.677	0.187	0.067	0.146
Has comprehensive knowledge of HIV/AIDS	0.290	0.019	1615	1506	1.658	0.065	0.252	0.327
Higher-risk sex last 12 months among youth	0.620	0.034	392	365	1.382	0.055	0.552	0.688
Total fertility rate (last 3 years)	3.427	0.203	na	4255	1.276	0.059	3.020	3.834
Neonatal mortality (last 0-9 years)	50.594	6.962	1785	1603	1.055	0.138	36.670	64.518
Post-neonatal mortality (last 0-9 years)	58.085	8.707	1798	1615	1.385	0.150	40.671	75.500
Infant mortality (last 0-9 years)	108.679	12.285	1793	1610	1.325	0.113	84.110	133.248
Child mortality (last 0-9 years)	59.353	5.829	1702	1546	0.909	0.098	47.695	71.010
Under-five mortality (last 0-9 years)	161.581	14.493	1814	1628	1.340	0.090	132.596	190.566
HIV prevalence	0.031	0.008	718	682	1.153	0.239	0.016	0.046
MEN								
Urban residence	0.912	0.018	656	639	1.602	0.019	0.877	0.948
No education	0.170	0.021	656	639	1.442	0.125	0.128	0.212
With secondary education or higher	0.733	0.022	656	639	1.283	0.030	0.689	0.778
Never married/in union	0.468	0.028	656	639	1.449	0.060	0.412	0.525
Currently married/in union	0.481	0.026	656	639	1.356	0.055	0.428	0.534
Had sex before age of 18	0.454	0.025	522	515	1.154	0.055	0.404	0.505
Knowing any contraceptive method	0.975	0.009	312	308	0.998	0.009	0.958	0.993
Knowing any modern contraceptive method	0.975	0.009	312	308	0.998	0.009	0.958	0.993
Ever used any contraceptive method	0.589	0.034	312	308	1.200	0.057	0.522	0.656
Want no more children	0.309	0.027	312	308	1.045	0.089	0.255	0.364
Want to delay at least 2 years	0.303	0.030	312	308	1.152	0.099	0.243	0.363
Ideal number of children	3.734	0.169	638	623	1.344	0.045	3.397	4.071
Has comprehensive knowledge of HIV/AIDS	0.399	0.024	656	639	1.255	0.060	0.351	0.447
Higher-risk sex last 12 months among youth	0.902	0.028	174	160	1.250	0.031	0.846	0.959
HIV prevalence	0.026	0.008	569	592	1.170	0.300	0.010	0.042
MEN AND WOMEN								
HIV prevalence	0.029	0.006	1287	1274	1.266	0.205	0.017	0.041

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Sierra Leone 2008

Age	Women		Men		Age	Women		Men	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	755	3.5	708	3.5	36	157	0.7	138	0.7
1	590	2.8	574	2.8	37	153	0.7	162	0.8
2	581	2.7	580	2.9	38	230	1.1	224	1.1
3	707	3.3	704	3.5	39	99	0.5	113	0.6
4	662	3.1	717	3.5	40	376	1.8	357	1.8
5	552	2.6	558	2.8	41	52	0.2	71	0.4
6	873	4.1	903	4.5	42	121	0.6	152	0.8
7	708	3.3	792	3.9	43	68	0.3	111	0.5
8	690	3.2	780	3.9	44	81	0.4	76	0.4
9	611	2.9	586	2.9	45	271	1.3	390	1.9
10	715	3.3	815	4.0	46	68	0.3	78	0.4
11	419	2.0	451	2.2	47	63	0.3	95	0.5
12	645	3.0	705	3.5	48	116	0.5	132	0.7
13	565	2.6	560	2.8	49	35	0.2	73	0.4
14	988	4.6	881	4.4	50	522	2.4	219	1.1
15	245	1.1	339	1.7	51	219	1.0	41	0.2
16	243	1.1	272	1.3	52	249	1.2	78	0.4
17	189	0.9	246	1.2	53	143	0.7	44	0.2
18	371	1.7	419	2.1	54	138	0.6	58	0.3
19	252	1.2	230	1.1	55	282	1.3	203	1.0
20	394	1.8	366	1.8	56	101	0.5	62	0.3
21	175	0.8	167	0.8	57	51	0.2	58	0.3
22	340	1.6	223	1.1	58	96	0.4	60	0.3
23	199	0.9	164	0.8	59	34	0.2	31	0.2
24	179	0.8	138	0.7	60	397	1.9	364	1.8
25	673	3.1	298	1.5	61	48	0.2	99	0.5
26	269	1.3	146	0.7	62	80	0.4	149	0.7
27	254	1.2	187	0.9	63	44	0.2	69	0.3
28	416	1.9	300	1.5	64	34	0.2	53	0.3
29	169	0.8	150	0.7	65	231	1.1	242	1.2
30	515	2.4	368	1.8	66	23	0.1	35	0.2
31	101	0.5	94	0.5	67	22	0.1	58	0.3
32	224	1.0	184	0.9	68	78	0.4	82	0.4
33	145	0.7	103	0.5	69	25	0.1	27	0.1
34	112	0.5	102	0.5	70+	585	2.7	664	3.3
35	568	2.7	504	2.5	Don't know/ missing	16	0.1	19	0.1
					Total	21,406	100.0	20,202	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Sierra Leone 2008

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	3,333	na	na	na
15-19	1,299	1,209	16.3	93.1
20-24	1,287	1,185	16.0	92.1
25-29	1,781	1,666	22.4	93.5
30-34	1,098	1,037	14.0	94.5
25-39	1,207	1,141	15.4	94.5
40-44	699	654	8.8	93.5
45-49	554	530	7.1	95.8
50-54	1,271	na	na	na
15-49	7,925	7,422	100.0	93.6

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 aged 10-64 and interviewed men aged 15-59; and percent distribution and percentage of eligible men who were interviewed (weighted), by five-year age groups, Sierra Leone 2008

Age group	Household population of men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percentage	
10-14	1,909	na	na	na
15-19	566	508	15.7	89.9
20-24	435	390	12.0	89.7
25-29	487	443	13.7	90.9
30-34	382	366	11.3	96.0
25-39	562	532	16.4	94.6
40-44	358	335	10.3	93.5
45-49	363	336	10.4	92.7
50-54	207	186	5.7	90.0
55-59	160	147	4.5	91.8
60-64	438	na	na	na
15-59	3,519	3,244	100.0	92.2

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

Table C.3 Completeness of reporting			
Percentage of observations missing information for selected demographic and health questions (weighted), Sierra Leone 2008			
Subject	Reference group	Percentage with information missing	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		2.73	16,586
Month and year		0.69	16,586
Age at death	Deceased children born in the last 15 years preceding the survey	0.00	2,721
Age/date at first union¹	Ever-married women age 15-49	0.81	5,975
	Ever-married men age 15-59	1.12	2,187
Respondent's education	All women age 15-49	0.17	7,374
	All men age 15-59	0.89	3,280
Diarrhoea in past 2 weeks	Living children age 0-59 months	4.56	5,213
Anthropometry	Living children age 0-59 months (from the Household Questionnaire)		
Height		4.98	3,378
Weight		5.07	3,378
Height or weight		5.18	3,378
Anaemia			
Children	Living children age 6-59 months (from the Household Questionnaire)	11.73	3,005
Women	All women (from the Household Questionnaire)	13.11	3,991
Men	All women (from the Household Questionnaire)	15.73	3,518

¹ Both year and age missing

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), Sierra Leone 2008

Calendar year ¹	Number of births			Percentage with complete birth date ¹			Sex ratio at birth ²			Calendar year ratio ³		
	L	D	T	L	D	T	L	D	T	L	D	T
2008	579	51	631	99.8	100.0	99.8	94.6	48.0	89.8	na	na	na
2007	1,354	94	1,448	100.0	99.6	100.0	96.5	72.0	94.7	na	na	na
2006	1,033	108	1,141	100.0	100.0	100.0	99.4	119.8	101.2	88.2	96.7	89.0
2005	989	128	1,117	100.0	97.2	99.7	99.2	109.4	100.4	99.4	94.5	98.8
2004	956	164	1,120	100.0	100.0	100.0	107.4	93.3	105.2	105.9	126.3	108.5
2003	817	131	948	99.9	98.7	99.7	93.9	131.8	98.4	73.0	51.8	69.1
2002	1,280	342	1,623	97.4	92.4	96.4	91.4	116.4	96.1	137.8	226.6	150.2
2001	1,042	171	1,213	97.1	85.7	95.5	96.6	150.7	102.8	87.2	50.0	78.9
2000	1,110	343	1,452	96.2	92.9	95.5	105.0	141.2	112.5	124.2	186.1	134.7
1999	746	197	943	95.1	88.3	93.7	100.5	87.2	97.5	71.6	70.1	71.2
2004-2008	4,912	545	5,457	100.0	99.3	99.9	99.5	91.7	98.7	na	na	na
1999-2003	4,994	1,184	6,178	97.2	91.6	96.1	97.1	123.3	101.7	na	na	na
1994-1998	3,728	929	4,657	94.7	88.4	93.4	101.0	118.4	104.3	na	na	na
1989-1993	2,131	736	2,867	94.1	84.8	91.7	104.4	112.8	106.5	na	na	na
<1988	1,909	921	2,830	94.4	84.2	91.1	96.7	105.7	99.5	na	na	na
All	17,675	4,315	21,990	96.7	89.1	95.3	99.4	112.2	101.8	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

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Sierra Leone 2008

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	59	85	60	40	245
1	36	77	40	28	180
2	19	31	19	10	80
3	16	36	15	16	82
4	4	10	12	5	31
5	7	12	15	9	43
6	7	31	13	5	56
7	25	24	22	6	77
8	5	6	4	2	17
9	2	7	1	3	13
10	3	6	5	0	13
11	0	1	0	0	1
12	4	7	1	0	13
13	4	2	1	0	7
14	11	13	11	9	44
15	2	6	5	0	13
16	0	2	0	0	2
18	2	3	0	0	5
20	0	5	4	0	8
21	3	4	4	2	13
22	1	0	0	0	1
25	0	1	0	0	1
26	0	0	1	0	1
28	0	1	0	0	1
29	1	0	0	0	1
30	1	0	0	0	1
Total 0-30	209	371	234	135	950
Percentage early neonatal ¹	70.3	75.9	74.4	84.1	75.5

¹ ≤ 6 days / ≤ 30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Sierra Leone 2008

Age at death (months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 ^a	209	371	234	135	950
1	27	38	27	14	106
2	29	54	47	30	160
3	32	58	35	25	150
4	23	54	19	20	115
5	20	28	23	28	98
6	17	46	47	27	137
7	19	50	23	24	116
8	29	38	32	20	119
9	26	36	30	29	121
10	16	17	16	14	63
11	16	18	11	15	60
12	45	91	67	42	245
13	1	6	3	1	11
14	5	6	11	7	30
15	4	10	6	5	25
16	3	4	1	3	10
17	4	1	1	3	9
18	6	23	13	8	50
19	0	0	1	3	4
20	0	9	8	14	31
21	0	0	0	1	1
22	2	3	1	4	11
23	2	1	1	2	6
Total 0-11	464	807	543	380	2,195
Percent neonatal ¹	45.1	46.0	43.1	35.5	43.3

^a Includes deaths under one month reported in days

¹ Under one month/under one year

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, Sierra Leone 2008

Background characteristic	Height-for-age				Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD ¹	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage above +2 SD	Mean Z-score (SD)		
Age in months													
<6	2.8	8.6	0.2	0.3	6.9	14.3	0.4	1.5	4.5	18.0	0.6	247	
6-8	9.1	18.4	-0.6	0.8	5.1	9.7	-0.0	4.9	14.5	4.3	-0.6	146	
9-11	5.8	15.4	-0.5	2.5	13.7	6.0	-0.6	4.7	20.5	3.2	-1.0	133	
12-17	17.8	33.1	-1.2	2.9	11.6	7.3	-0.5	10.6	33.3	4.7	-1.2	344	
18-23	20.9	39.6	-1.5	2.9	12.5	4.3	-0.5	6.2	26.6	3.7	-1.2	199	
24-35	19.2	42.0	-1.3	1.3	7.8	7.4	-0.2	6.3	28.0	6.3	-1.0	501	
36-47	22.0	35.9	-1.3	3.5	9.6	5.8	-0.3	8.3	27.7	2.6	-1.1	630	
48-59	21.6	40.1	-1.5	1.8	6.1	5.3	-0.3	7.1	26.9	2.9	-1.1	599	
Sex													
Male	19.6	35.5	-1.2	2.2	9.0	6.4	-0.3	7.7	26.9	5.1	-1.0	1,385	
Female	15.8	31.6	-1.0	2.1	8.4	7.6	-0.2	6.0	23.3	5.2	-0.8	1,415	
Birth interval in months²													
First birth	14.5	29.6	-1.1	2.7	10.0	7.0	-0.2	5.5	22.2	4.4	-0.9	408	
<24	17.8	34.3	-1.2	3.8	12.6	7.0	-0.4	11.8	32.8	5.0	-1.1	275	
24-47	20.0	35.6	-1.2	2.1	7.6	6.0	-0.2	6.0	27.2	5.1	-1.0	935	
48+	16.2	29.6	-1.0	0.9	8.8	9.8	-0.1	6.7	21.2	6.3	-0.8	554	
Size at birth²													
Very small	15.6	34.4	-1.1	3.5	16.0	5.1	-0.6	9.5	31.9	3.1	-1.1	150	
Small	21.7	34.4	-1.4	1.9	11.1	6.2	-0.3	12.7	31.9	5.7	-1.2	274	
Average or larger	17.4	32.7	-1.1	1.9	7.9	7.6	-0.2	5.8	24.0	5.2	-0.9	1,659	
Missing	15.2	27.1	-0.9	4.3	11.5	8.1	-0.1	4.3	21.0	9.0	-0.7	90	
Mother's interview status													
Interviewed	17.7	32.8	-1.2	2.1	9.0	7.3	-0.2	6.8	25.4	5.2	-0.9	2,172	
Not interviewed but in household	16.2	36.8	-1.2	1.7	8.1	5.3	-0.2	6.0	21.9	4.1	-0.9	139	
Not interviewed, and not in the household ⁴	18.0	35.6	-1.1	2.5	7.6	6.2	-0.3	7.3	24.4	5.0	-0.9	487	
Mother's nutritional status⁵													
Thin (BMI <18.5)	20.5	35.8	-1.2	3.5	14.3	5.4	-0.6	11.2	32.9	4.6	-1.2	240	
Normal (BMI 18.5-24.9)	18.4	34.1	-1.2	1.7	8.0	6.3	-0.3	6.6	25.7	4.8	-1.0	1,327	
Overweight/ obese (BMI ≥25)	15.7	29.8	-1.1	2.2	8.4	9.5	-0.0	5.1	21.5	6.3	-0.7	558	
Missing	12.0	28.1	-1.0	3.5	11.8	12.0	-0.2	7.3	23.5	4.0	-0.8	142	
Residence													
Urban	10.2	26.3	-0.8	2.6	9.2	8.1	-0.2	6.1	18.6	6.2	-0.7	754	
Rural	20.4	36.2	-1.3	2.0	8.5	6.6	-0.3	7.2	27.5	4.8	-1.0	2,046	
Region													
Eastern	14.5	30.2	-1.1	2.8	8.7	12.4	0.1	5.3	23.2	9.3	-0.6	526	
Northern	19.8	37.0	-1.2	1.6	7.3	4.5	-0.4	7.5	28.2	3.7	-1.0	1,344	
Southern	20.0	34.5	-1.2	3.0	12.3	8.3	-0.3	8.6	25.5	4.9	-1.0	550	
Western	11.4	24.6	-0.8	1.9	8.6	6.4	-0.3	4.3	16.5	4.7	-0.7	381	

Continued...

Table C.7—Continued

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children	
	Percentage below -3 SD	Percentage below -2 SD ¹	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage above +2 SD	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage above +2 SD		Mean Z-score (SD)
Mother's education⁶											
No education	18.9	35.0	-1.2	2.1	9.3	6.7	7.9	28.0	5.1	-1.0	1,821
Primary	16.8	30.3	-1.1	3.5	8.5	10.3	3.9	17.8	4.6	-0.8	251
Secondary or higher	9.4	19.6	-0.7	0.1	6.5	8.1	1.6	12.1	6.4	-0.5	231
Wealth quintile											
Lowest	19.5	34.4	-1.1	2.6	10.9	7.6	7.9	26.7	5.9	-0.9	612
Second	23.8	40.1	-1.5	1.4	6.7	6.7	7.5	29.1	2.1	-1.2	583
Middle	18.2	34.5	-1.2	2.7	9.1	5.6	6.6	27.4	5.2	-1.0	627
Fourth	14.5	33.5	-1.1	2.2	7.2	8.2	7.0	23.8	6.2	-0.9	602
Highest	9.5	20.3	-0.5	1.7	10.1	7.0	4.4	14.7	6.9	-0.5	375
Total	17.7	33.5	-1.1	2.2	8.7	7.0	6.9	25.1	5.1	-0.9	2,800

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 Child Growth Standards.

Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes 2 children with information missing on mother's interview status and 8 children with information missing on mother's education

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

² Excludes children whose mothers were not interviewed

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

⁴ Includes children whose mothers are deceased

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

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

Table C.8 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), Sierra Leone 2008

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	91.7	5.2	0.4	2.7	100.0	734
Ever had sex	92.6	4.6	0.2	2.6	100.0	500
Never had sex	89.7	6.4	0.9	3.0	100.0	234
Married/living together	93.5	5.0	0.1	1.4	100.0	2,745
Divorced/separated	93.5	3.6	0.7	2.2	100.0	139
Widowed	91.5	5.7	0.0	2.8	100.0	106
Type of union						
In polygynous union	92.6	5.9	0.1	1.4	100.0	942
Not in polygynous union	94.0	4.6	0.1	1.3	100.0	1,736
Not currently in union	91.9	5.0	0.4	2.7	100.0	979
Don't know/missing	94.0	3.0	0.0	3.0	100.0	67
Ever had sexual intercourse						
Yes	93.3	4.9	0.1	1.6	100.0	3,469
No	89.7	6.4	0.9	3.0	100.0	234
Currently pregnant						
Pregnant	95.2	3.4	0.0	1.4	100.0	291
Not pregnant/not sure	92.9	5.2	0.2	1.7	100.0	3,433
Times slept away from home in past 12 months						
None	92.6	5.3	0.1	2.0	100.0	2,033
1-2	93.9	4.2	0.4	1.4	100.0	920
3-4	91.0	7.0	0.0	2.0	100.0	398
5+	96.2	3.2	0.0	0.6	100.0	342
Missing	(93.5)	(3.2)	(3.2)	(0.0)	100.0	31
Time away in past 12 months						
Away for more than one month	93.5	4.4	0.0	2.1	100.0	566
Away only for less than 1 month	93.8	4.8	0.4	0.9	100.0	1,053
Not away	92.6	5.3	0.1	2.0	100.0	2,039
Missing	92.4	4.5	1.5	1.5	100.0	66
Ethnicity						
Temne	91.9	6.0	0.3	1.7	100.0	1,042
Mende	95.4	3.1	0.2	1.3	100.0	1,382
Other	91.5	6.2	0.1	2.2	100.0	1,300
Religion						
Christian	93.8	4.3	0.3	1.5	100.0	974
Muslim	92.8	5.2	0.1	1.8	100.0	2,713
Other	(89.2)	(8.1)	(0.0)	(2.7)	100.0	37
Total	93.1	5.0	0.2	1.7	100.0	3,724

Note: Figures in parentheses are based on 25 to 49 unweighted cases. Total includes some cases with information missing.

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.

Table C.9 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-59 by HIV testing status, according to social and demographic characteristics (unweighted), Sierra Leone 2008

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	89.8	6.6	0.3	3.3	100.0	1,129
Ever had sex	89.6	6.9	0.4	3.1	100.0	743
Never had sex	90.2	6.2	0.0	3.6	100.0	386
Married/living together	93.0	5.3	0.1	1.6	100.0	2,033
Divorced or separated	88.9	8.1	0.0	3.0	100.0	99
Widowed	*	*	*	*	100.0	19
Type of union						
In polygynous union	94.2	4.7	0.0	1.1	100.0	361
Not in polygynous union	92.7	5.4	0.1	1.7	100.0	1,672
Not currently in union	89.7	6.8	0.2	3.2	100.0	1,247
Ever had sexual intercourse						
Yes	92.0	5.9	0.2	2.0	100.0	2,877
No	90.2	6.2	0.0	3.6	100.0	386
Male circumcision						
Circumcised	91.7	5.9	0.1	2.3	100.0	3,162
Not circumcised	92.5	7.5	0.0	0.0	100.0	67
Missing	92.2	2.0	3.9	2.0	100.0	51
Times slept away from home in past 12 months						
None	91.6	5.5	0.1	2.8	100.0	1,363
1-2	89.8	7.7	0.2	2.3	100.0	600
3-4	91.3	6.9	0.0	1.8	100.0	507
5+	93.7	4.7	0.1	1.5	100.0	791
Time away in past 12 months						
Away for more than one month	89.9	7.8	0.0	2.3	100.0	613
Away only for less than 1 month	92.7	5.4	0.2	1.7	100.0	1,231
Not away	91.6	5.5	0.1	2.8	100.0	1,363
Missing	94.5	4.1	1.4	0.0	100.0	73
Ethnicity						
Temne	91.8	6.1	0.0	2.1	100.0	949
Mende	93.2	4.6	0.2	2.0	100.0	1,205
Other	90.1	7.0	0.3	2.6	100.0	1,126
Religion						
Christian	90.9	6.5	0.4	2.2	100.0	811
Muslim	92.1	5.7	0.1	2.2	100.0	2,450
Other	*	*	*	*	100.0	19
Total	91.7	5.9	0.2	2.2	100.0	3,280

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes some cases with information missing

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.

Table C.10 Coverage of HIV testing by sexual behaviour characteristics: Women

Percent distribution of interviewed women who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Sierra Leone 2008

Sexual behaviour 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		
Age at first sexual intercourse						
<16	94.1	4.7	0.1	1.2	100.0	1,722
16-17	92.2	5.0	0.6	2.2	100.0	717
18-19	92.1	5.1	0.0	2.8	100.0	431
20+	91.7	6.6	0.0	1.7	100.0	229
Missing	94.1	4.6	0.0	1.4	100.0	370
Higher-risk intercourse in past 12 months³						
Had higher-risk intercourse	92.7	4.1	0.2	3.0	100.0	605
Had sexual intercourse, not higher-risk	93.7	5.0	0.1	1.2	100.0	2,038
No sexual intercourse in past 12 months	92.7	5.3	0.2	1.7	100.0	826
Number of sexual partners in past 12 months						
0	92.9	5.3	0.3	1.5	100.0	730
1	93.2	5.0	0.1	1.6	100.0	2,488
2+	96.8	1.9	0.0	1.3	100.0	155
Missing	91.7	5.2	0.0	3.1	100.0	96
Number of higher-risk partners in past 12 months⁴						
0	93.4	5.1	0.1	1.4	100.0	2,864
1	92.5	4.0	0.2	3.3	100.0	549
2+	94.6	5.4	0.0	0.0	100.0	56
Condom use						
Ever used a condom	89.0	7.9	0.4	2.6	100.0	227
Never used a condom	93.5	4.8	0.1	1.6	100.0	3,221
Condom use at last sexual intercourse in past 12 months						
Used condom	84.8	9.1	0.0	6.1	100.0	66
Did not use condom	93.7	4.7	0.1	1.5	100.0	2,548
No sexual intercourse in past 12 months	92.7	5.3	0.2	1.7	100.0	826
Missing	(89.7)	(6.9)	(0.0)	(3.4)	100.0	29
Number of lifetime partners						
1	91.5	6.2	0.2	2.1	100.0	1,254
2	93.4	5.1	0.2	1.3	100.0	876
3-4	95.1	3.3	0.0	1.6	100.0	794
5-9	94.2	3.9	0.4	1.6	100.0	257
10+	(96.0)	(4.0)	(0.0)	(0.0)	100.0	25
Missing	94.7	4.2	0.0	1.1	100.0	263
Prior HIV testing status						
Ever tested, got result	91.1	6.2	0.0	2.7	100.0	371
Ever tested, did not get result	91.8	7.4	0.0	0.8	100.0	122
Never tested	93.6	4.7	0.2	1.5	100.0	2,891
Missing	92.9	4.7	0.0	2.4	100.0	85
Condom use at last higher-risk intercourse in past 12 months³						
Used condom	(83.3)	(7.1)	(0.0)	(9.5)	100.0	42
Did not use condom	93.4	3.9	0.2	2.5	100.0	563
No higher-risk intercourse/ no intercourse past 12 months	93.4	5.1	0.1	1.4	100.0	2,864
Condom use at first sex⁵						
Used condom	(92.6)	(7.4)	(0.0)	(0.0)	100.0	27
Did not use condom	92.8	5.2	0.3	1.7	100.0	925
Missing	(86.7)	(13.3)	(0.0)	(0.0)	100.0	30
Total	93.3	4.9	0.1	1.6	100.0	3,469

Note: Figures in parentheses are based on 25 to 49 unweighted cases. Total includes some cases with information missing.

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 respondent⁴ A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the last 12 months⁵ Refers to those age 15-24 only

Table C.11 Coverage of HIV testing by sexual behaviour characteristics: Men

Percent distribution of interviewed men age 15-59 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Sierra Leone 2008

Sexual behaviour 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		
Age at first sexual intercourse						
<16	91.0	6.9	0.2	2.0	100.0	652
16-17	92.9	5.1	0.3	1.7	100.0	594
18-19	91.7	6.5	0.1	1.7	100.0	709
20+	92.3	5.3	0.1	2.3	100.0	874
Missing	(91.7)	(4.2)	(0.0)	(4.2)	100.0	48
Higher-risk intercourse in past 12 months³						
Had higher-risk intercourse	90.5	6.8	0.3	2.4	100.0	1,111
Had sexual intercourse, not higher-risk	92.8	5.4	0.1	1.7	100.0	1,404
No sexual intercourse in past 12 months	93.4	4.7	0.3	1.7	100.0	362
Number of sexual partners in past 12 months						
0	96.3	1.4	0.0	2.3	100.0	218
1	91.5	6.2	0.2	2.1	100.0	1,933
2+	92.9	5.3	0.2	1.6	100.0	567
Missing	88.1	10.1	0.6	1.3	100.0	159
Number of higher-risk partners in past 12 months⁴						
0	92.9	5.3	0.1	1.7	100.0	1,766
1	90.7	6.7	0.2	2.4	100.0	882
2+	89.5	7.4	0.4	2.6	100.0	229
Condom use						
Ever used a condom	88.5	8.8	0.2	2.4	100.0	827
Never used a condom	93.7	4.4	0.2	1.8	100.0	1,951
Missing	86.9	11.1	0.0	2.0	100.0	99
Condom use at last sexual intercourse in past 12 months						
Used condom	86.3	10.0	0.4	3.3	100.0	241
Did not use condom	92.3	5.7	0.1	1.9	100.0	2,250
No sexual intercourse in past 12 months	93.4	4.7	0.3	1.7	100.0	362
Paid for sexual intercourse in past 12 months⁵						
Yes	89.2	7.7	0.0	3.1	100.0	65
Used condom	*	*	*	*	100.0	21
Did not use condom	(90.9)	(6.8)	(0.0)	(2.3)	100.0	44
No (no paid sexual intercourse/no sexual intercourse in past 12 months)	92.0	5.8	0.2	2.0	100.0	2,812
Number of lifetime partners						
1	94.1	1.7	0.0	4.2	100.0	236
2	91.1	7.7	0.4	0.8	100.0	259
3-4	92.6	5.4	0.0	2.0	100.0	446
5-9	93.1	4.5	0.2	2.1	100.0	422
10+	93.4	4.2	0.0	2.5	100.0	408
Missing	90.5	7.7	0.3	1.5	100.0	1,106
Prior HIV testing status						
Ever tested, got result	85.5	11.8	0.5	2.3	100.0	221
Ever tested, did not get result	(93.2)	(6.8)	(0.0)	(0.0)	100.0	44
Never tested	92.1	5.8	0.1	2.0	100.0	2,184
Missing	94.6	3.0	0.2	2.1	100.0	428
Condom use at last higher-risk intercourse in past 12 months⁴						
Used condom	87.6	9.5	0.4	2.5	100.0	242
Did not use condom	91.3	6.1	0.2	2.4	100.0	869
No higher-risk intercourse/ no intercourse past 12 months	92.9	5.3	0.1	1.7	100.0	1,766
Condom use at first sex⁶						
Used condom	91.8	5.5	0.0	2.7	100.0	73
Did not use condom	89.8	7.4	0.0	2.7	100.0	591
Missing	90.5	6.9	0.0	2.6	100.0	232
Total	92.0	5.9	0.2	2.0	100.0	2,877

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes some cases with information missing.

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 past 12 months

⁵ Includes men who report having a prostitute for at least one of their last three sexual partners in the past 12 months

⁶ Refers to those age 15-24 only

PERSONS INVOLVED IN THE 2008 SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY

Appendix **D**

TECHNICAL AND ADMINISTRATIVE STAFF

UN INTERAGENCY TEAM

UNFPA
UNDP
UNICEF
WFP
UNHCR
WHO

BILATERAL ORGANISATIONS

USAID
DFID
THE WORLD BANK

PROJECT DIRECTOR

Professor Joseph A.L. Kamara

DEPUTY PROJECT DIRECTOR

Moses L.J. Williams

TECHNICAL ADVISOR

Samuel A. Ogunlade

SENIOR TECHNICAL STAFF

Professor Joseph A.L. Kamara
Lahai S. Kain
Dr. Duramani Conteh
Sahr E. Yambasu
John S.N. Pessima
Samuel B. Weekes
Alhaji Vandi M. Sovula
Thekeka Moses Conteh
Sylvetta Scott
James L. Kamara

Mohamed King Koroma
Moses L.J. Williams
Elizabeth M. Sam
Philip S. Amara
Samuel A. Ogunlade
Dr. Edward Magbity
Paul A. Sengeh
Dorothy Afuakwa
Ahamed Saybom Kanu

SENIOR DATA PROCESSING STAFF

Thekeka Moses Conteh
David Gbaya-Kokoya
Sylvester Kpulun
Christiana A. Davies
Wuya Konneh

DATA ENTRY OPERATORS

Fanta Bangura
Lyda Sesay
Felix B. Kanu
Jariatu Sesay
Alieu Mansaray
Patience Sawyer
Juliana John
Elsie John
Evelyn Cummings
Fatmata Sensie
Tiangay Koroma
Rashid Kamara

Tamba Bull
Binta Ola-Williams
Yvonne Barbar
Angella F. Sesay
Bridget Koroma
Abie Elsie Wilson
Felicia Johnson
Rola Jones
Octavia Sumailah
Catherine K. Kamara
Hulda Paul

DATA ENTRY EDITORS

Christiana Davies
Hawa Sesay
Isatu Awalu
Sia Sartie
Comfort Lewis
Abu Backarr Swarb
Memunatu Mansaray
Maseray Kallay

Maddy Ansumana
Margret Lebbie
Nathaniel O. John
Aba Y. Kamara
Cecil Silla
Baby-June Hancil
Adama Bangura

OFFICE EDITORS

Abu Adonis Kanu
Emmanuel A. Farma
Mohamed Samuel Koroma

Saidu Kamara
Fatmata Turay
Fatmata Kuyateh

SECONDARY EDITORS

Ibrahim G. Kargbo
Francis Tommy
Wogba E.P. Kamara
Wuya Konneh

ADMINISTRATIVE STAFF

Ahamed Saybom Kanu—Administrative Manager
Baba Femi Aaron Johnson—Finance/Accounts Manager
Christopher Mattia—Transport Officer
Joseph Fullah—Procurement Officer
Christiana A. Taylor—Secretary
Olive Odia—Secretary

COORDINATORS

Dr. Edward Magbity
Gbogboto B Musa
Elizabeth Sam
Unisa Conteh

Sonia Jabbie
Dr. Duramani Conteh
Samuel Weeks
James Kamara

LISTING STAFF

Isatu Sesay
Sahr Sinah
Solomon Kamara
Mariama Bah
Helen Sesay
Abdul Kamara
Mohamed H.M. Kamara
Saidu Kamara
Joseph Sesay
Ishmail Bangura
Mannah Jah
Christian Edwards
John Blackie
Kema Lansana
David Walters
Adama Kargbo
Willie Garber
Sillah Kamara
A.B.S. Samura
Sheikh Koroma

Comsie Spaine
Paul Silma
Raymond Taylor
Paul Sesay
Simeon Bangali
John Green
Edmond Kargbo
Mohamed Suffian Kamara
Brima Thullah
Lahai Jah
Patcelian Anderson
Ade Wilson
Teresa Gogra
Solomon Bannister
Mohamed Yakuba
Ahmed Sheriff
Ahmed J. Kanu
Dorothy James
Abdul R. Bangura
Mohamed S. Koroma

MAPPERS

Santigi Kargbo
Lionel Kargbo
Ayshat Yahaya
Augustin Johnny
Lansana Soko
Abdul S. Kamara
Salifu Kamara
Francis A. Sellu
Madda S. Kpekawa
Ibrahim Sesay
Ibrahim T. Koroma
Lahai Sei Abu
Melvin Gbondo
Abu Bangura
Martin Lebbie
Elenor Kandeh
Sahr Dennis Komba
Momoh Thomas Bockarie
Mahene May Parker
Abu Bakaar Turay

James Bondobay
Bakaar Kamara
Morrison Ngobeh
Abdul Sankoh
Mohamed Kamara
Gabriel Mossima
John P. Simbo
Alpha M. Koi
Mohamed S.K. Banya
Alimamy Bangura
Manfred Kanu
Zomo Kamara
Francis Kpullum
Steven Amara
Samuel Lawson
Max Konneh
Bockarie Torto
Ibrahim Bangura
Tamba Sandy

LAB TECHNICIANS

S.T. Kamanda
E.V. Sefoi
John Kamara
Ishmeal Fornah
Alfred Koroma
David Mattia
Dominic Moseray

FIELD SUPERVISORS

Wogba E.P. Kamara
Amadu Kamara
David J. Walters
Alusine Kamara
Alimamy Yallancy
Patricia Serry Kamal
Abu Bakarr Kamara
Umaru Koroma
Harriet Hinckley
Sahr E. Yambasu
Ibrahim J. Sannoh
Mohamed Songu
Jusu Ngobeh

Sahr K. Davowa
Isata M. Jigba
Ambrose F. Kobie
Claude Kondor
Ibrahim G. Kargbo
Bridget Moseray
Mohamed B. Moigua
Amadu Amara
Sahr Sandi
Samuel Turay
Francis Tommy
Tamba Bandabla

FEMALE EDITORS

Aminata Bompurah Kamara
Benlinda R. Ndanema
Sorrie I. Kamara
Rugiatsu Bangura
Betty Gottor
Jeneba Bockarie
Margaret Lebbie
Valentina B.C. Nicol
Agnes Lahai
Jane Johnny
Margaret Wilson
Hassanatu Koroma

Fatmata Bintu Jalloh
Mahene May Parker
Florence I. Musa
Jonta Alghali
Cecilia Musa
Musu Fanta Amara
Rose Johnny
Sylvia M. Kpaka
Fatu E. Conteh
Mabinty Kamara
Samuella S. Mahoi
Christiana Elliot

BIO MARKERS

Musa Koroma
Ibrahim Kamara
Lamin H. Koroma
John E. Turay
Tamba Sandy
Jacob Sam Kpaka
Festus M. Kpakumu
Mohamed C. Conteh
Eddie Gulama
Mohamed U. Sesay
James P. Magbity
Lahai Jah
John Alusine S. Koroma

Ahmed S. Bangura
Momodu I. Kamara
Mohamed Lamin Kamara
Sulaiman T. Tommy
Patrick Amara
Mamoud H.M. Koroma
Michael Kposowa
Simeon Morie Sam
Christian Edwards
Aruna Kamara
Lionel Kargbo
Thomas P. Bangali

MALE INTERVIEWERS

Daniel Fornah	Samuel Campbell
Leslie M. Bairoh	Foday Kamara
Ruth Sesay	Anthony M. Sesay
Henry Y. Koroma	Demba Sillah
Augustine N. Brewah	Franklyn Kanneh
Paul K. Joseph	Mohamed Yankuba
Peter Ben Kallay	Paul Sima
Solomon Kamara	Robert George
Edward Med Kamara	Aruna Sesay
James Samuel Campbell	Lama Sesay
Lamin Angus Mansaray	Mohamed Sidique Koroma
Alieu Narvo	

FEMALE INTERVIEWERS

Dorothy James	Fatu S. Conteh
Roselyn S. Conteh	Beatrice H. Fofanah
Isata M. Swarry	Zainab Y. Thullah
Mary Magdalene Y. Bairoh	Zainab Y. Koroma
Leonie Labor	Mamie Iye Sabina Kamara
Oriah Sesay	Juliana Kayonga
Fatmata B. Kamara	Fatmata Y. Kargbo
Haja Lamin	Isata N. Koroma
Marie Kargbo	Regina Turay
Henrietta M. Gegbe	Leelei C. Taluva
Mabel M. Kalakoh	Wango Rose Koroma
Battu Sheriff	Joseph M.S. Ansumana
Rebecca Bockarie	Mariama Conteh
Massah Sidibay	Margaret M. Suale
Esther M.B. Kamara	Betty Caulker
Isatu Sesay	Elizabeth M. Momoh
Christina B. Jengo	Evelyn R. Jusu
Eugenia King	Kadiatu D. Sannoh
Kaddie Kandeh	Juliana Kayonga
Margaret Kumba Kamara	Melvina Luke
Millicent M. Bockarie	Rugiatu lahai
Fatmata Turay	Yatta R. Kuyembeh
Mawonday Marrah	Zainab Joaque
Salamatu N. Dolie	Fatmata Turay
Halima Deen	

ICF MACRO STAFF

Dr. Mohamed Ayad—Regional Coordinator
Dr. Gulnara Semenov—International Health Specialist
Dr. Ruilin Ren—Sampling Specialist
Harouna Koche—Data Processing Specialist
Sri Poedjastoeti—Technical Reviewer
Zhuzhi Moore—Technical Reviewer
Dr. Sidney Moore—Editor
Christopher Gramer—Document Production
Kaye Mitchell—Document Production
Andrew Inglis—GIS Specialist
Dr. Michel Toukam—Biomarker Consultant

2008 SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE

STATISTICS SIERRA LEONE

IDENTIFICATION																																									
LOCALITY NAME _____	<table border="1" style="margin: auto;"> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>																																								
NAME OF HOUSEHOLD HEAD _____																																									
CLUSTER NUMBER																																									
HOUSEHOLD NUMBER																																									
LOCAL COUNCIL																																									
DISTRICT																																									
PROVINCE																																									
CHIEFDOM																																									
SECTION																																									
ENUMERATION AREA																																									
URBAN-RURAL (RURAL=1 , URBAN=2)																																									
(FREETOWN=1, OTHER CITY (50,000-1 MLN)=2, TOWN (LESS THAN 50,000)=3, RURAL=4)																																									

IS THIS HOUSEHOLD SELECTED FOR THE MALE SURVEY(YES = 1; NO = 2)

INTERVIEWER VISITS																								
	1	2	3	FINAL VISIT																				
DATE	_____	_____	_____	DAY <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTH <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>0</td><td>0</td><td>8</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>									2	0	0	8								
2	0	0	8																					
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>																				
RESULT*	_____	_____	_____	RESULT <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>																				
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>																				
TIME	_____	_____																						
*RESULT CODES: 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT 3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____ <div style="text-align: right;">(SPECIFY)</div>				TOTAL PERSONS IN HOUSEHOLD <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> TOTAL ELIGIBLE WOMEN <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> TOTAL ELIGIBLE MEN <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>																				
INTERVIEW LANGUAGE <input type="checkbox"/>	NATIVE LANGUAGE OF THE RESPONDENT <input type="checkbox"/>																							
KRIO=1, TEMNE=2, MENDE=3; OTHER=6 _____ <div style="text-align: right;">(SPECIFY)</div>																								
SUPERVISOR	FIELD EDITOR		OFFICE EDITOR	KEYED BY																				
NAME _____	NAME _____																							
DATE _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>							DATE _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>								<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>					<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>				

Introduction and Consent

Hello. My name is _____ and I am working with Statistics Sierra Leone. We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. The survey usually takes between 10 and 15 minutes to complete.

As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential. Participation in the survey is completely voluntary. If we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED ... 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ... 2 → END

HOUSEHOLD SCHEDULE

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	IF AGE 10 OR OLDER	ELIGIBILITY		
				Does (NAME) usually live here?	Did (NAME) stay here last night?		MARITAL STATUS	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2 (HH7) TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-32 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	Y N	Y N	IN YEARS				
01		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	01	01	01
02		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	02	02	02
03		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	03	03	03
04		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	04	04	04
05		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	05	05	05
06		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	06	06	06
07		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	07	07	07
08		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	08	08	08
09		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	09	09	09
10		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	10	10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

- | | |
|------------------------------------|-------------------------------|
| 01 = HEAD | 08 = BROTHER OR SISTER |
| 02 = WIFE OR HUSBAND | 09 = NIECE/NEPHEW BY BLOOD |
| 03 = SON OR DAUGHTER | 10 = NIECE/NEPHEW BY MARRIAGE |
| 04 = SON-IN-LAW OR DAUGHTER-IN-LAW | 11 = OTHER RELATIVE |
| 05 = GRANDCHILD | 12 = ADOPTED/FOSTER/STEPCHILD |
| 06 = PARENT | 13 = NOT RELATED |
| 07 = PARENT-IN-LAW | 98 = DON'T KNOW |

LINE NO.	IF AGE 0-17 YEARS				IF AGE 3 YEARS OR OLDER		IF AGE 3-24 YEARS				IF AGE 0-4 YEARS
	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE				BIRTH REGISTRATION
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2007-2008) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, (2006 - 2007)?	During that school year, what level and grade did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	(13)	(14)	(16)	(17)	(23)	(24)	(25)	(26)	(27)	(28)	(32)
01	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
02	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
03	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
04	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
05	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
06	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
07	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
08	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
09	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
10	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>

CODES FOR Q_RES 24,26 and 28: EDUCATION

LEVEL	GRADE	GRADE
0=KINDERGARTEN	1-3	00 = LESS THAN 1 YEAR COMPLETED
1=PRIMARY	1-6	(USE '00' FOR Q. 24 ONLY.
2=JSS (MIDDLE SCHOOL)	1-3	THIS CODE IS NOT ALLOWED
3=SSS (HIGH SCHOOL)	1-3	FOR QS. 26 AND 28)
4=VOC/COMM/TEACHER/TECHN/NURSING	1-3	98 = DONT KNOW
5=HIGHER	1-6	
8=DONTKNOW		

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	IF AGE 10 OR OLDER	ELIGIBILITY		
				Does (NAME) usually live here?	Did (NAME) stay here last night?		MARITAL STATUS	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2 (HH7) TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-32 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
11		<input type="text"/>	M F 1 2	Y N 1 2	Y N 1 2	IN YEARS <input type="text"/>	<input type="text"/>	11	11	11
12		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	12	12	12
13		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	13	13	13
14		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	14	14	14
15		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	15	15	15
16		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	16	16	16
17		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	17	17	17
18		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	18	18	18
19		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	19	19	19
20		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	<input type="text"/>	20	20	20

TICK HERE IF CONTINUATION SHEET USED

2A) Just to make sure that I have a complete listing. Are there any other persons such as small children or infants that we have not listed? YES ADD TO TABLE NO

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? YES ADD TO TABLE NO

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ADD TO TABLE NO

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

- 01 = HEAD
- 02 = WIFE OR HUSBAND
- 03 = SON OR DAUGHTER
- 04 = SON-IN-LAW OR DAUGHTER-IN-LAW
- 05 = GRANDCHILD
- 06 = PARENT
- 07 = PARENT-IN-LAW
- 08 = BROTHER OR SISTER
- 09 = NIECE/NEPHEW BY BLOOD
- 10 = NIECE/NEPHEW BY MARRIAGE
- 11 = OTHER RELATIVE
- 12 = ADOPTED/FOSTER/STEPCHILD
- 13 = NOT RELATED
- 98 = DONT KNOW

LINE NO.	IF AGE 0-17 YEARS				IF AGE 3 YEARS OR OLDER		IF AGE 3-24 YEARS				IF AGE 0-4 YEARS
	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE				BIRTH REGISTRATION
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2007-2008) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, (2006 - 2007)?	During that school year, what level and grade did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	(13)	(14)	(16)	(17)	(23)	(24)	(25)	(26)	(27)	(28)	(32)
11	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
12	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
13	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
14	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
15	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
16	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
17	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
18	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
19	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>
20	Y N DK 1 2 8 GO TO 16	<input type="text"/>	Y N DK 1 2 8 GO TO 23	<input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 27	LEVEL GRADE <input type="text"/> <input type="text"/>	Y N 1 2 GO TO 32	LEVEL GRADE <input type="text"/> <input type="text"/>	<input type="text"/>

CODES FOR Q_RES 24,26 and 28: EDUCATION

LEVEL	GRADE	GRADE
0=KINDERGARTEN	1-3	00 = LESS THAN 1 YEAR COMPLETED
1=PRIMARY	1-6	(USE '00' FOR Q. 24 ONLY.
2=JSS (MIDDLE SCHOOL)	1-3	THIS CODE IS NOT ALLOWED
3=SSS (HIGH SCHOOL)	1-3	FOR QS. 26 AND 28)
4=VOC/COMM/TEACHER/TECHN/NURSING	1-3	98 = DON'T KNOW
5=HIGHER	1-6	
8=DONTKNOW		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	Do you do anything to the water to make it safer to drink?	YES 1 NO 2 DON'T KNOW 8	→ 108
107	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL A ADD BLEACH/CHLORINE B STRAIN THROUGH A CLOTH C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) D SOLAR DISINFECTION E LET IT STAND AND SETTLE F OTHER _____ X (SPECIFY) DON'T KNOW Z	
108	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM 11 FLUSH TO SEPTIC TANK 12 FLUSH TO PIT LATRINE 13 FLUSH TO SOMEWHERE ELSE 14 FLUSH, DON'T KNOW WHERE 15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE 21 PIT LATRINE WITH SLAB 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT 23 COMPOSTING TOILET 31 BUCKET TOILET 41 HANGING TOILET/HANGING LATRINE 51 NO FACILITY/BUSH/FIELD 61 STREAM/RIVER 71 OTHER _____ 96 (SPECIFY)	→ 111 → 111
109	Do you share this toilet facility with other households?	YES 1 NO 2	→ 111
110	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 <input type="text" value="0"/> <input type="text"/> 10 OR MORE HOUSEHOLDS 95 DON'T KNOW 98	
111	Does your household have:	YES NO ELECTRICITY 1 2 RADIO 1 2 TELEVISION 1 2 MOBILE TELEPHONE 1 2 NON-MOBILE TELEPHONE 1 2 REFRIGERATOR 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	What type of fuel does your household mainly use for cooking?	ELECTRICITY 01 LPG 02 NATURAL GAS 03 BIOGAS 04 KEROSENE 05 COAL / LIGNITE 06 CHARCOAL 07 WOOD 08 STRAW/SHRUBS/GRASS 09 AGRICULTURAL CROP 10 ANIMAL DUNG 11 NO FOOD COOKED IN HOUSEHOLD 95 OTHER _____ 96 (SPECIFY)	→ 115 → 117
113	In this household, is food cooked on an open fire, an open stove or a closed stove?	OPEN FIRE 1 OPEN STOVE 2 CLOSED STOVE WITH CHIMNEY 3 OTHER _____ 6 (SPECIFY)	 → 115
114	Does this (fire/stove) have a chimney, a hood, or neither of these?	CHIMNEY 1 HOOD 2 NEITHER 3	
115	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE 1 IN A SEPARATE BUILDING 2 OUTDOORS 3 OTHER _____ 6 (SPECIFY)	 → 117
116	Do you have a separate room which is used as a kitchen?	YES 1 NO 2	
117	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND 11 DUNG 12 STONE 13 RUDIMENTARY FLOOR WOOD PLANKS 21 PALM/BAMBOO 22 FINISHED FLOOR PARQUET OR POLISHED WOOD 31 VINYL OR ASPHALT STRIPS 32 CERAMIC TILES 33 CEMENT 34 CARPET 35 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																					
118	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF 11 THATCH/PALM LEAF 12 SOD 13 RUDIMENTARY ROOFING RUSTIC MAT 21 PALM/BAMBOO 22 WOOD PLANKS 23 CARDBOARD 24 TARPAULIN 25 FINISHED ROOFING METAL/C.I. SHEETS 31 WOOD 32 CALAMINE/CEMENT FIBER 33 CERAMIC/ROOFING TILES 34 CEMENT/CONCRETE 35 ROOFING SHINGLES 36 ASBESTOS 37 OTHER _____ 96 (SPECIFY)																						
119	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS 11 CANE/PALM/TRUNKS 12 DIRT 13 MUD BRICKS 14 RUDIMENTARY WALLS BAMBOO WITH MUD 21 STONE WITH MUD 22 UNCOVERED ADOBE 23 PLYWOOD 24 CARDBOARD 25 REUSED WOOD 26 CLAY BLOCKS 27 CORRUGATED IRON SHEETS 28 TARPAULIN 29 FINISHED WALLS CEMENT 31 STONE WITH LIME/CEMENT 32 BRICKS 33 CEMENT BLOCKS 34 COVERED ADOBE 35 WOOD PLANKS/SHINGLES 36 OTHER _____ 96 (SPECIFY)																						
120	How many rooms in this household are used for sleeping?	ROOMS <input type="text"/> <input type="text"/>																						
121	Does any member of this household own: A watch? A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck? A boat with a motor?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">YES</th> <th style="width: 10%; text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>WATCH</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>BICYCLE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>MOTORCYCLE/SCOOTER ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>ANIMAL-DRAWN CART</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>CAR/TRUCK</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>BOAT WITH MOTOR</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	WATCH	1	2	BICYCLE	1	2	MOTORCYCLE/SCOOTER ...	1	2	ANIMAL-DRAWN CART	1	2	CAR/TRUCK	1	2	BOAT WITH MOTOR	1	2	
	YES	NO																						
WATCH	1	2																						
BICYCLE	1	2																						
MOTORCYCLE/SCOOTER ...	1	2																						
ANIMAL-DRAWN CART	1	2																						
CAR/TRUCK	1	2																						
BOAT WITH MOTOR	1	2																						
122	Does any member of this household own any agricultural land?	YES 1 NO 2	→ 124																					

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
123	How many acres of agricultural land do members of this household own?	ACRES <input type="text"/> <input type="text"/> 95 OR MORE ACRES 95 DON'T KNOW 98	
124	Does this household own any livestock, herds, other farm animals, or poultry?	YES 1 NO 2	→ 126
125	How many of the following animals does this household own? IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'. Cows,calfs or bulls? Horses, donkeys, or mules? Pigs? Goats? Sheep? Rabbits? Rodents to breed? Fowl:chickens,geese,ducks,turkeys? Birds for sale?	COWS/BULLS <input type="text"/> <input type="text"/> HORSES/DONKEYS/I <input type="text"/> <input type="text"/> PIGS <input type="text"/> <input type="text"/> GOATS <input type="text"/> <input type="text"/> SHEEP <input type="text"/> <input type="text"/> RABBITS <input type="text"/> <input type="text"/> RODENTS <input type="text"/> <input type="text"/> FOWL <input type="text"/> <input type="text"/> BIRDS <input type="text"/> <input type="text"/>	
126	Does any member of this household have a bank account?	YES 1 NO 2	
127	Does your household have any mosquito nets that can be used while sleeping?	YES 1 NO 2	→ 138
128	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS <input type="text"/>	

		NET #1	NET #2	NET #3
129	ASK THE RESPONDENT TO SHOW YOU THE NETS IN THE HOUSEHOLD. IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED 1 NOT OBSERVED 2	OBSERVED 1 NOT OBSERVED 2	OBSERVED 1 NOT OBSERVED 2
130	How many months ago did your household obtain the mosquito net? IF LESS THAN ONE MONTH, RECORD '00'.	MONTHS AGO <input type="text"/> <input type="text"/> 37 OR MORE MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO <input type="text"/> <input type="text"/> 37 OR MORE MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO <input type="text"/> <input type="text"/> 37 OR MORE MONTHS AGO ... 95 NOT SURE 98
131	OBSERVE OR ASK THE BRAND/TYPE OF MOSQUITO NET.	'PERMANENT' NET PERMANET 11 SERENA(SUPRANET) 12 OLYSET(SUPRANET) ... 13 OTHER/ DK BRAND 16 (SKIP TO 135) ← 'PRETREATED' NET ANY BRAND 21 OTHER/ DK BRAND 26 (SKIP TO 133) ← OTHER 31 DK BRAND 98	'PERMANENT' NET PERMANET 11 SERENA(SUPRANET) 12 OLYSET(SUPRANET) 13 OTHER/ DK BRAND 16 (SKIP TO 135) ← 'PRETREATED' NET ANY BRAND ... 21 OTHER/ DK BRAND 26 (SKIP TO 133) ← OTHER 31 DK BRAND 98	'PERMANENT' NET PERMANET 11 SERENA(SUPRANET) 12 OLYSET(SUPRANET) 13 OTHER/ DK BRAND 16 (SKIP TO 135) ← 'PRETREATED' NET ANY BRAND ... 21 OTHER/ DK BRAND 26 (SKIP TO 133) ← OTHER 31 DK BRAND 98
132	When you got the net, was it treated with an insecticide to kill or repel mosquitos?	YES 1 NO 2 NOT SURE 8	YES 1 NO 2 NOT SURE 8	YES 1 NO 2 NOT SURE 8
133	Since you got the mosquito net, was it ever soaked or dipped in a liquid to kill or repel mosquitos?	YES 1 NO 2 (SKIP TO 135) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 135) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 135) ← NOT SURE 8
134	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH, RECORD '00'.	MONTHS AGO <input type="text"/> <input type="text"/> 25 OR MORE MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO <input type="text"/> <input type="text"/> 25 OR MORE MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO <input type="text"/> <input type="text"/> 25 OR MORE MONTHS AGO ... 95 NOT SURE 98
135	Did anyone sleep under this mosquito net last night?	YES 1 NO 2 (SKIP TO 137) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 137) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 137) ← NOT SURE 8

		NET #1	NET #2	NET #3
136	Who slept under this mosquito net last night? RECORD THE PERSON'S LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>
137		GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 138.	GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 138.	GO TO 129 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 138.
138	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE. RECORD PPM (PARTS PER MILLION)	0 PPM (NO IODINE) 1 BELOW 15 PPM 2 15 PPM AND ABOVE 3 NO SALT IN HH 4 SALT NOT TESTED 6 (SPECIFY REASON) _____		

**CHILD LABOR
FOR CHILDREN AGED 5 THROUGH 14**

Now I would like to ask about any work that children in this household may do.

LINE NUMBER	NAME OF CHILD FROM COL.2	WORK LAST WEEK			WORK IN LAST YEAR	HOUSEHOLD CHORES			WORK IN FAMILY BUSINESS OR FARM	
WRITE CHILD'S LINE NUMBER FROM COLUMN 1 IN THE HOUSEHOLD SCHEDULE ONLY INCLUDE CHILDREN AGED 5-14 FROM COLUMN 7	WRITE CHILD'S NAME FROM COLUMN 2 IN THE HOUSEHOLD SCHEDULE.	During the past week, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was that for pay or unpaid?	Since last (DAY OF THE WEEK), about how many hours did (NAME) do this work for someone who is not a member of this household? INCLUDE ALL HOURS AT ALL JOBS.	At any time during the past year, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was that for pay or unpaid?	During the past week, did (NAME) help with household chores such as shopping collecting firewood, cleaning, fetching water, or caring for children?	Since last (DAY OF THE WEEK), about how many hours did (NAME) spend doing these chores?	During the past week, did (NAME) do any other family work, on the farm or in a business or selling goods in the street?	Since last (DAY OF THE WEEK), about how many hours did (NAME) do this work?		
(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)	(209)		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		
<input type="text"/>		PAID UNPD NO 1 2 3 ↓ GO TO 205	HOURS <input type="text"/>	PAID UNPD NO 1 2 3	Y N 1 2 ↓ GO TO 208	HOURS <input type="text"/>	Y N 1 2 ↓ NEXT LINE	HOURS <input type="text"/>		

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

501	CHECK COLUMN 11. RECORD THE LINE NUMBER AND AGE FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 502. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S). A FINAL OUTCOME MUST BE RECORDED FOR THE WEIGHT AND HEIGHT MEASUREMENT IN 508 AND FOR THE ANEMIA PROCEDURE IN 513			
		CHILD 1	CHILD 2	CHILD 3
502	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER ... <input type="text"/> NAME _____	LINE NUMBER ... <input type="text"/> NAME _____	LINE NUMBER ... <input type="text"/> NAME _____
503	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY <input type="text"/> MONTH <input type="text"/> YEAR <input type="text"/>	DAY <input type="text"/> MONTH <input type="text"/> YEAR <input type="text"/>	DAY <input type="text"/> MONTH <input type="text"/> YEAR <input type="text"/>
504	CHECK 503: CHILD BORN IN JANUARY 2003 OR LATER?	YES 1 NO 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES 1 NO 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES 1 NO 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)
505	WEIGHT IN KILOGRAMS	KG. ... <input type="text"/>	KG. ... <input type="text"/>	KG. ... <input type="text"/>
506	HEIGHT IN CENTIMETERS	CM. <input type="text"/>	CM. <input type="text"/>	CM. <input type="text"/>
507	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN 1 STANDING UP 2	LYING DOWN 1 STANDING UP 2	LYING DOWN 1 STANDING UP 2
508	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
509	CHECK 503: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515) OLDER 2	0-5 MONTHS 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515) OLDER 2	0-5 MONTHS 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515) OLDER 2
510	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED.	LINE NUMBER ... <input type="text"/>	LINE NUMBER ... <input type="text"/>	LINE NUMBER ... <input type="text"/>
511	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED 1 _____ (SIGN) ← REFUSED 2 (IF REFUSED, GO TO 513)	GRANTED 1 _____ (SIGN) ← REFUSED 2 (IF REFUSED, GO TO 513)	GRANTED 1 _____ (SIGN) ← REFUSED 2 (IF REFUSED, GO TO 513)
512	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . <input type="text"/>	G/DL . <input type="text"/>	G/DL . <input type="text"/>
513	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
514		GO BACK TO 503 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 515.		

CONSENT STATEMENT FOR ANEMIA FOR CHILDREN

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

We request that all children born in 2003 or later participate in the anemia testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you allow (NAME(S) OF CHILD(REN) to participate in the anemia test?

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 4	CHILD 5	CHILD 6
502	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER ... <input type="text"/> NAME _____	LINE NUMBER ... <input type="text"/> NAME _____	LINE NUMBER ... <input type="text"/> NAME _____
503	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY <input type="text"/> MONTH <input type="text"/> YEAR <input type="text"/>	DAY <input type="text"/> MONTH <input type="text"/> YEAR <input type="text"/>	DAY <input type="text"/> MONTH <input type="text"/> YEAR <input type="text"/>
504	CHECK 503: CHILD BORN IN JANUARY 2003 OR LATER	YES 1 NO 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES 1 NO 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES 1 NO 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)
505	WEIGHT IN KILOGRAMS	KG. ... <input type="text"/>	KG. ... <input type="text"/>	KG. ... <input type="text"/>
506	HEIGHT IN CENTIMETERS	CM. <input type="text"/>	CM. <input type="text"/>	CM. <input type="text"/>
507	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN 1 STANDING UP 2	LYING DOWN 1 STANDING UP 2	LYING DOWN 1 STANDING UP 2
508	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
509	CHECK 503: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515) OLDER 2	0-5 MONTHS 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515) OLDER 2	0-5 MONTHS 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515) OLDER 2
510	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED.	LINE NUMBER ... <input type="text"/>	LINE NUMBER ... <input type="text"/>	LINE NUMBER ... <input type="text"/>
511	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED 1 (SIGN) ← REFUSED 2 (IF REFUSED, GO TO 513)	GRANTED 1 (SIGN) ← REFUSED 2 (IF REFUSED, GO TO 513)	GRANTED 1 (SIGN) ← REFUSED 2 (IF REFUSED, GO TO 513)
512	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . <input type="text"/>	G/DL . <input type="text"/>	G/DL . <input type="text"/>
513	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT.	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
514	GO BACK TO 503 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 515.			

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR WOMEN AGE 15-49

515	CHECK COLUMN 9. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 516. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S). A FINAL OUTCOME MUST BE RECORDER FOR THE WEIGHT AND HEIGHT MEASUREMENT IN 519, FOR THE ANEMIA TEST PROCEDURE IN 528, AND FOR THE HIV TEST PROCEDURE IN 530.			
		WOMAN 1	WOMAN 2	WOMAN 3
516	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____
517	WEIGHT IN KILOGRAMS	KG. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	KG. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	KG. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
518	HEIGHT IN CENTIMETERS	CM. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	CM. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	CM. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
519	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
520	AGE: CHECK COLUMN 7.	15-17 YEARS 1 18-49 YEARS 2 (GO TO 523) ↙	15-17 YEARS 1 18-49 YEARS 2 (GO TO 523) ↙	15-17 YEARS 1 18-49 YEARS 2 (GO TO 523) ↙
521	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) 1 OTHER 2 (GO TO 523) ↙	CODE 4 (NEVER IN UNION) 1 OTHER 2 (GO TO 523) ↙	CODE 4 (NEVER IN UNION) 1 OTHER 2 (GO TO 523) ↙
522	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT <input type="text"/> <input type="text"/>	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT <input type="text"/> <input type="text"/>	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT <input type="text"/> <input type="text"/>
523	READ ANEMIA TEST CONSENT STATEMENT. FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN) (IF REFUSED, GO TO 525).	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN) (IF REFUSED, GO TO 525).	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN) (IF REFUSED, GO TO 525).
CONSENT STATEMENT FOR ANEMIA TEST				
<p>READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 523 IF RESPONDENT CONSENTS TO THE ANEMIA TEST AND CODE '3' IF SHE REFUSES.</p> <p>FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE QUESTION 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 523 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.</p> <p>As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.</p> <p>For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.</p> <p>The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.</p> <p>Do you have any questions?</p> <p>You can say yes to the test, or you can say no. It is up to you to decide.</p> <p>Will you (allow NAME OF ADOLESCENT to) take the anemia test?</p>				

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER <input type="text"/> <input type="text"/>	LINE NUMBER <input type="text"/> <input type="text"/>	LINE NUMBER <input type="text"/> <input type="text"/>
		NAME _____	NAME _____	NAME _____
524	PREGNANCY STATUS: CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES 1 NO 2 DK 8	YES 1 NO 2 DK 8	YES 1 NO 2 DK 8 2
525	READ THE HIV TEST CONSENT STATEMENT. FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN)
526	CHECK 523 AND 525 AND PREPARE EQUIPMENT AND SUPPLIES FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S). A FINAL OUTCOME FOR THE THE ANEMIA TEST PROCEDURE MUST BE RECORDED IN 528 AND FOR THE HIV TEST PROCEDURE IN 530 FOR EACH ELIGIBLE WOMAN EVEN IF SHE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESTED FOR SOME OTHER REASON.			
527	RECORD HEMO- GLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL <input type="text"/> <input type="text"/> <input type="text"/>	G/DL <input type="text"/> <input type="text"/> <input type="text"/>	G/DL <input type="text"/> <input type="text"/> <input type="text"/>
528	RECORD RESULT CODE OF HEMO- GLOBIN MEASURE- MENT.	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
529	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
530	OUTCOME OF HIV TEST PROCEDURE	BLOOD TAKEN 1 NOT PRESENT 2 REFUSED 3 OTHER 6	BLOOD TAKEN 1 NOT PRESENT 2 REFUSED 3 OTHER 6	BLOOD TAKEN 1 NOT PRESENT 2 REFUSED 3 OTHER 6
CONSENT STATEMENT FOR HIV TEST				
<p>READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 525 IF RESPONDENT CONSENTS TO THE HIV TEST AND CODE '3' IF SHE REFUSES.</p> <p>FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 525 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.</p> <p>As part of the survey we also are asking people all over the country to take an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Sierra Leone.</p> <p>For the HIV test, we need a few more drops of blood from a finger. Again the equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.</p> <p>No names will be attached so we will not be able to tell you the test results. No one else will be able to know (your/NAME OF ADOLESCENT's) test results either.</p> <p>If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities.</p> <p>Do you have any questions?</p> <p>You can say yes to the test, or you can say no. It is up to you to decide. Will you (allow NAME OF ADOLESCENT to) take the HIV test?</p>				

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____
530A	CHECK 530: OUTCOME OF HIV TEST	BLOOD TAKEN <input type="checkbox"/> BLOOD NOT TAKEN <input type="checkbox"/> ↓ GO TO NEXT WOMAN	BLOOD TAKEN <input type="checkbox"/> BLOOD NOT TAKEN <input type="checkbox"/> ↓ GO TO NEXT WOMAN	BLOOD TAKEN <input type="checkbox"/> BLOOD NOT TAKEN <input type="checkbox"/> ↓ GO TO NEXT WOMAN
530B	READ THE CONSENT STATE- MENT FOR ADDITIONAL TESTS. FOR NEVER-IN- UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 ↓ _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 ↓ _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 ↓ _____ (SIGN)
530C	ADDITIONAL TESTS	CHECK 530B: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 530B: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 530B: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.
530D	GO BACK TO 517 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMNS OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE WOMEN, GO TO 531.			

CONSENT STATEMENT FOR ADDITIONAL TESTS

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 530B IF RESPONDENT CONSENTS TO THE ADDITIONAL TESTS AND CODE '3' IF SHE REFUSES.

FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 530B IF THE PARENT (OTHER ADULT) REFUSES. CIRCLE CODE '1' IN 530B IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

We ask you to allow Statistics Sierra Leone to store part of the blood sample at the laboratory to be used for testing or research in the future. We are not certain about what tests might be done.

The blood sample will not have any name or other data attached that could identify (you/NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for later use, (you/NAME OF ADOLESCENT) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for later testing or research?

HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR MEN AGE 15-59

531	<p>CHECK COLUMN 10. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE MEN IN 532. IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S).</p> <p>A FINAL OUTCOME MUST BE RECORDED FOR THE WEIGHT AND HEIGHT MEASUREMENT IN 535, FOR THE ANEMIA TEST PROCEDURE IN 543, AND FOR THE HIV TEST PROCEDURE IN 545.</p>			
		MAN 1	MAN 2	MAN 3
532	<p>LINE NUMBER (COLUMN 10)</p> <p>NAME (COLUMN 2)</p>	<p>LINE NUMBER <input type="text"/> <input type="text"/></p> <p>NAME _____</p>	<p>LINE NUMBER <input type="text"/> <input type="text"/></p> <p>NAME _____</p>	<p>LINE NUMBER <input type="text"/> <input type="text"/></p> <p>NAME _____</p>
536	<p>AGE: CHECK COLUMN 7.</p>	<p>15-17 YEARS 1</p> <p>18-49 YEARS 2</p> <p align="center">(GO TO 539) ←</p>	<p>15-17 YEARS 1</p> <p>18-49 YEARS 2</p> <p align="center">(GO TO 539) ←</p>	<p>15-17 YEARS 1</p> <p>18-49 YEARS 2</p> <p align="center">(GO TO 539) ←</p>
537	<p>MARITAL STATUS: CHECK COLUMN 8.</p>	<p>CODE 4 (NEVER IN UNION) 1</p> <p>OTHER 2</p> <p align="center">(GO TO 539) ←</p>	<p>CODE 4 (NEVER IN UNION) 1</p> <p>OTHER 2</p> <p align="center">(GO TO 539) ←</p>	<p>CODE 4 (NEVER IN UNION) 1</p> <p>OTHER 2</p> <p align="center">(GO TO 539) ←</p>
538	<p>RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.</p>	<p>LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . <input type="text"/> <input type="text"/></p>	<p>LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . <input type="text"/> <input type="text"/></p>	<p>LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . <input type="text"/> <input type="text"/></p>
539	<p>READ ANEMIA TEST CONSENT STATEMENT. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/OTHER ADULT IDENTIFIED IN 538 BEFORE ASKING RESPONDENT'S CONSENT.</p>	<p>GRANTED 1</p> <p>PARENT/OTHER RESPONSIBLE ADULT REFUSED 2</p> <p>RESPONDENT REFUSED 3</p> <p align="center">_____ (SIGN) ←</p>	<p>GRANTED 1</p> <p>PARENT/OTHER RESPONSIBLE ADULT REFUSED 2</p> <p>RESPONDENT REFUSED 3</p> <p align="center">_____ (SIGN) ←</p>	<p>GRANTED 1</p> <p>PARENT/OTHER RESPONSIBLE ADULT REFUSED 2</p> <p>RESPONDENT REFUSED 3</p> <p align="center">_____ (SIGN) ←</p>

CONSENT STATEMENT FOR ANEMIA TEST

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 539 IF RESPONDENT CONSENTS TO THE ANEMIA TEST AND CODE '3' IF HE REFUSES.

FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 538) BEFORE ASKING THE ADOLESCENT FOR HIS CONSENT. CIRCLE CODE '2' IN 539 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you (allow NAME OF ADOLESCENT to) take the anemia test?

		MAN 1	MAN 2	MAN 3
	LINE NUMBER (COLUMN 10) NAME (COLUMN 2)	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____
540	READ THE HIV TEST CONSENT STATEMENT. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 538 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 _____ (SIGN)
541	CHECK 539 AND 540 AND PREPARE EQUIPMENT AND SUPPLIES FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S). A FINAL OUTCOME OF THE ANEMIA TEST PROCEDURE MUST BE RECORDED IN 543 AND FOR THE HIV TEST PROCEDURE IN 545 FOR EACH ELIGIBLE MAN EVEN IF HE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESTED FOR SOME OTHER REASON.			
542	RECORD HEMOGLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL <input type="text"/> <input type="text"/> . <input type="text"/>	G/DL <input type="text"/> <input type="text"/> . <input type="text"/>	G/DL <input type="text"/> <input type="text"/> . <input type="text"/>
543	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT.	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6	MEASURED 1 NOT PRESENT 2 REFUSED 3 OTHER 6
544	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
545	OUTCOME OF HIV TEST PROCEDURE	BLOOD TAKEN 1 NOT PRESENT 2 REFUSED 3 OTHER 6	BLOOD TAKEN 1 NOT PRESENT 2 REFUSED 3 OTHER 6	BLOOD TAKEN 1 NOT PRESENT 2 REFUSED 3 OTHER 6

CONSENT STATEMENT FOR HIV TEST

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 540 IF RESPONDENT CONSENTS TO THE HIV TEST AND CODE '3' IF HE REFUSES.

FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 538) BEFORE ASKING THE ADOLESCENT FOR HIS CONSENT. CIRCLE CODE '2' IN 540 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of the survey we also are asking people all over the country to take an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Sierra Leone.

For the HIV test, we need a few more drops of blood from a finger. Again the equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

No names will be attached so we will not be able to tell you the test results. No one else will be able to know (your/NAME OF ADOLESCENT's) test results either.

If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you (allow NAME OF ADOLESCENT to) take the HIV test?

		MAN 1	MAN 2	MAN 3
	LINE NUMBER (COLUMN 10) NAME (COLUMN 2)	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____
545A	CHECK 530 OUTCOME OF HIV TEST	BLOOD TAKEN <input type="checkbox"/> BLOOD NOT TAKEN <input type="checkbox"/> ↓ GO TO NEXT MAN	BLOOD TAKEN <input type="checkbox"/> BLOOD NOT TAKEN <input type="checkbox"/> ↓ GO TO NEXT MAN	BLOOD TAKEN <input type="checkbox"/> BLOOD NOT TAKEN <input type="checkbox"/> ↓ GO TO NEXT MAN
545B	READ THE CONSENT STATE- MENT FOR ADDITIONAL TESTS WITH LEFT OVER BLOOD. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 ↓ _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 ↓ _____ (SIGN)	GRANTED 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED 2 RESPONDENT REFUSED 3 ↓ _____ (SIGN)
545C	ADDITIONAL TESTS	CHECK 545B: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 545B: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 545B: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.
545D	GO BACK TO 533 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMNS OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE MEN, END INTERVIEW.			

CONSENT STATEMENT FOR ADDITIONAL TESTS

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 545B IF RESPONDENT CONSENTS TO THE ADDITIONAL TESTS AND CODE '3' IF HE REFUSES.

FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 538) BEFORE ASKING THE ADOLESCENT FOR HIS CONSENT. CIRCLE CODE '2' IN 540 IF THE PARENT (OTHER ADULT) REFUSES. CIRCLE CODE '1' IN 540 ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

We ask you to allow Statistics Sierra Leone to store part of the blood sample at the laboratory to be used for testing or research in the future. We are not certain about what tests might be done.

The blood sample will not have any name or other data attached that could identify (you/NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for later use, (you/NAME OF ADOLESCENT) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for later testing or research?

2008 SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY
WOMAN'S QUESTIONNAIRE

STATISTICS SIERRA LEONE

IDENTIFICATION																																																																																																	
LOCALITY NAME _____	<table border="1" style="margin: auto;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>																																																																																																
NAME OF HOUSEHOLD HEAD _____																																																																																																	
CLUSTER NUMBER																																																																																																	
HOUSEHOLD NUMBER																																																																																																	
LOCAL COUNCIL																																																																																																	
DISTRICT																																																																																																	
PROVINCE																																																																																																	
CHIEFDOM																																																																																																	
SECTION																																																																																																	
ENUMERATION AREA																																																																																																	
URBAN-RURAL (RURAL=1 , URBAN=2)																																																																																																	
FREETOWN =1, OTHER CITY (50,000-1 MLN)=2, TOWN (LESS THAN 50,000)=3, RURAL=4																																																																																																	
NAME AND LINE NUMBER OF WOMAN _____																																																																																																	

INTERVIEWER VISITS																						
	1	2	3	FINAL VISIT																		
DATE	_____	_____	_____	DAY <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTH <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>0</td><td>0</td><td>8</td></tr></table> INT. NUMBER <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr></table> RESULT <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>									2	0	0	8						
2	0	0	8																			
INTERVIEWER'S NAME	_____	_____	_____																			
RESULT*	_____	_____	_____																			
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table>																		
TIME	_____	_____																				
*RESULT CODES: 1 COMPLETED 4 REFUSED 2 NOT AT HOME 5 PARTLY COMPLETED 7 OTHER _____ (SPECIFY) 3 POSTPONED 6 INCAPACITATED																						

INTERVIEW LANGUAGE NATIVE LANGUAGE OF THE RESPONDENT
 KRIO=1, TEMNE=2, MENDE=3; OTHER=6 _____ (SPECIFY)

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY										
NAME _____	NAME _____												
DATE _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>				DATE _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>				<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>			<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with STATISTICS SIERRA LEONE. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes between 30 and 60 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE) IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS <input type="text"/> <input type="text"/> ALWAYS 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY 1 TOWN 2 COUNTRYSIDE 3	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS <input type="text"/> <input type="text"/> NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than one month at a time?	YES 1 NO 2	
106	In what month and year were you born?	MONTH <input type="text"/> <input type="text"/> DON'T KNOW MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR 9998	
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
108	Have you ever attended school?	YES 1 NO 2	→ 112
109	What is the highest level of school you attended: primary, junior secondary, senior secondary, vocational, commercial, nursing, technical, teaching or higher?	PRIMARY 1 JUNIOR SECONDARY 2 SENIOR SECONDARY 3 VOCATIONAL/COMMERCIAL/NURSING TECHNICAL/TEACHING 4 HIGHER 5	
110	What is the highest (grade/form/year) you completed at that level?	GRADE/FORM/YEAR <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	CHECK 109: PRIMARY <input type="checkbox"/> SECONDARY OR HIGHER <input type="checkbox"/>		115
112	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL 1 ABLE TO READ ONLY PARTS OF SENTENCE 2 ABLE TO READ WHOLE SENTENCE.. 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy/numeracy program or any other program that involves learning to read or write (not including primary school)?	YES 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED <input type="checkbox"/> CODE '1' OR '5' CIRCLED <input type="checkbox"/>		116
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK 2 LESS THAN ONCE A WEEK 3 NOT AT ALL / NOT AVAILABLE 4	
116	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK 2 LESS THAN ONCE A WEEK 3 NOT AT ALL / NOT AVAILABLE 4	
117	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK 2 LESS THAN ONCE A WEEK 3 NOT AT ALL / NOT AVAILABLE 4	
118	What is your religion?	CHRISTIAN 1 ISLAM 2 BAHAI 3 TRADITIONAL 4 NONE 5 OTHER _____ 6 (SPECIFY)	
119	What is your ethnicity?	TEMNE 11 MENDE 12 KRIOLE 13 MANDINGO 14 LOKO 15 SHERBRO 16 LIMBA 17 KONO 18 OTHER SIERRA LEONE _____ 21 (SPECIFY) OTHER NON SIERRA LEONE _____ 22 (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES 1 NO 2	→ 206								
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES 1 NO 2	→ 204								
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS AT HOME <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES 1 NO 2	→ 206								
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS ELSEWHERE . . . <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES 1 NO 2	→ 208								
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> GIRLS DEAD <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>									
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES <input type="checkbox"/> NO <input type="checkbox"/> → PROBE AND CORRECT 201-208 AS NECESSARY.										
210	CHECK 208: ONE OR MORE BIRTHS <input type="checkbox"/> NO BIRTHS <input type="checkbox"/> →		→ 226								

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES. (IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).									
212	213	214	215	216	217 IF ALIVE:	218 IF ALIVE:	219 IF ALIVE:	220 IF DEAD:	221
What name was given to your (first/next) baby? (NAME)	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↙ BIRTH
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↙ BIRTH
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↙ BIRTH
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↙ BIRTH
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↙ BIRTH
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↙ BIRTH

212	213	214	215	216	217 IF ALIVE:	218 IF ALIVE:	219 IF ALIVE:	220 IF DEAD:	221	
What name was given to your next baby? (NAME)	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?	
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↘ BIRTH	
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↘ BIRTH	
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↘ BIRTH	
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↘ BIRTH	
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES . . . 1 NO 2	LINE NUMBER <input type="text"/> <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES 1 ADD ↙ BIRTH NO 2 NEXT ↘ BIRTH	
222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.					YES 1 NO 2				
223	<p>COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:</p> <p>NUMBERS ARE SAME <input type="checkbox"/> NUMBERS ARE DIFFERENT <input type="checkbox"/> → (PROBE AND RECONCILE)</p> <p>CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED.</p> <p>FOR EACH BIRTH SINCE JANUARY 2003: MONTH AND YEAR OF BIRTH ARE RECORDED.</p> <p>FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED.</p> <p>FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED.</p> <p>FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.</p>									
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 2003 OR LATER. IF NONE, RECORD '0' AND SKIP TO 226.									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	FOR EACH BIRTH SINCE JANUARY 2003, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES 1 NO 2 UNSURE 8	→ 229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS <input type="text"/> <input type="text"/>	
228	At the time you became pregnant, did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN 1 LATER 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES 1 NO 2	→ 237
230	When did the last such pregnancy end?	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
231	CHECK 230: LAST PREGNANCY ENDED IN <input type="checkbox"/> LAST PREGNANCY ENDED BEFORE <input type="checkbox"/> JAN. 2003 OR LATER ↓ JAN. 2003		→ 237
232	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS <input type="text"/> <input type="text"/>	
233	Since January 2003, have you had any other pregnancies that did not result in a live birth?	YES 1 NO 2	→ 235
234	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2003. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
235	Did you have any miscarriages, abortions or stillbirths that ended before 2003?	YES 1 NO 2	→ 237
236	When did the last such pregnancy that terminated before 2003 end?	MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
237	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO 1 <table border="1"><tr><td></td><td></td></tr></table> WEEKS AGO 2 <table border="1"><tr><td></td><td></td></tr></table> MONTHS AGO 3 <table border="1"><tr><td></td><td></td></tr></table> YEARS AGO 4 <table border="1"><tr><td></td><td></td></tr></table> IN MENOPAUSE/ HAS HAD HYSTERECTOMY ... 994 BEFORE LAST BIRTH 995 NEVER MENSTRUATED 996									
238	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual intercourse?	YES 1 NO 2 DON'T KNOW 8	<table border="1"><tr><td></td></tr></table> → 301								
239	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS 1 DURING HER PERIOD 2 RIGHT AFTER HER PERIOD HAS ENDED 3 HALFWAY BETWEEN TWO PERIODS 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8									

SECTION 3. CONTRACEPTION

301	<p>Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.</p> <p>Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?</p> <p>CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.</p>	302 Have you ever used (METHOD)?	
01	<p>FEMALE STERILIZATION Women can have an operation to avoid having any more children.</p>	<p>YES 1 NO 2 ↘</p>	<p>Have you ever had an operation to avoid having any more children? YES 1 NO 2</p>
02	<p>MALE STERILIZATION Men can have an operation to avoid having any more children.</p>	<p>YES 1 NO 2 ↘</p>	<p>Have you ever had a partner who had an operation to avoid having any more children? YES 1 NO 2</p>
03	<p>PILL Women can take a pill every day to avoid becoming pregnant.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
04	<p>IUD Women can have a loop or coil placed inside them by a doctor or a nurse.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
05	<p>INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
06	<p>IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
07	<p>CONDOM Men can put a rubber sheath on their penis before sexual intercourse.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
08	<p>FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
09	<p>LACTATIONAL AMENORRHEA METHOD (LAM)</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
10	<p>RHYTHM(CALENDAR) METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
11	<p>WITHDRAWAL Men can be careful and pull out before climax.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
12	<p>EMERGENCY CONTRACEPTION As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within five days to prevent pregnancy.</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
13	<p>SPERMICIDES/FOAM/JELLY Can be inserted into the woman's vagina immediately before sexual intercourse</p>	<p>YES 1 NO 2 ↘</p>	<p>YES 1 NO 2</p>
14	<p>Have you heard of any other ways or methods that women or men can use to avoid pregnancy?</p>	<p>YES 1 _____ (SPECIFY) _____ (SPECIFY) NO 2</p>	<p>YES 1 NO 2 YES 1 NO 2</p>
303	<p>CHECK 302:</p> <p>NOT A SINGLE "YES" (NEVER USED) <input type="checkbox"/></p> <p>AT LEAST ONE "YES" (EVER USED) <input type="checkbox"/></p>		<p>→ 307</p>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES 1 NO 2	→ 306
305	ENTER '0' IN THE CALENDAR IN EACH BLANK MONTH.		→ 333
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN <input type="text"/> <input type="text"/>	
308	CHECK 302 (01): WOMAN NOT STERILIZED <input type="checkbox"/> WOMAN STERILIZED <input type="checkbox"/>		→ 311A
309	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		→ 322
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES 1 NO 2	→ 322
311	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION A MALE STERILIZATION B PILL C IUD D INJECTABLES E IMPLANTS F CONDOM G FEMALE CONDOM H DIAPHRAGM I FOAM/JELLY J LACTATIONAL AMEN. METHOD K RHYTHM METHOD L WITHDRAWAL M OTHER _____ X (SPECIFY)	→ 316 → 315 → 315 → 319A
311A	CIRCLE 'A' FOR FEMALE STERILIZATION.		
312	RECORD IF CODE 'C' FOR PILL IS CIRCLED IN 311. YES (USING PILL) <input type="checkbox"/> NO (USING CONDOM BUT NOT PILL) <input type="checkbox"/> May I see the package of pills you are using? May I see the package of condoms you are using? RECORD NAME OF BRAND IF PACKAGE SEEN.	PACKAGE SEEN 1 BRAND NAME _____ (SPECIFY) <input type="text"/> <input type="text"/> PACKAGE NOT SEEN 2	→ 314
313	Do you know the brand name of the (pills/condoms) you are using? RECORD NAME OF BRAND.	BRAND NAME _____ (SPECIFY) <input type="text"/> <input type="text"/> DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
314	How many (pill cycles/condoms) did you get the last time?	NUMBER OF PILL CYCLES/CONDOMS .. <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 998	
315	The last time you obtained (HIGHEST METHOD ON LIST IN 311), how much did you pay in total, including the cost of the method and any consultation you may have had?	COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE 99995 DON'T KNOW 99998	} → 319A
316	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL 11 GOVT. HEALTH CENTER 12 FAMILY PLANNING CLINIC 13 MOBILE CLINIC 14 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC ... 21 PRIVATE DOCTOR'S OFFICE ... 23 MOBILE CLINIC 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
317	CHECK 311/311A: CODE 'A' CIRCLED <input type="checkbox"/> ↓ Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'A' NOT CIRCLED <input type="checkbox"/> ↓ Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES 1 NO 2 DON'T KNOW 8	
318	How much did you (your husband/partner) pay in total for the sterilization, including any consultation you (he) may have had?	COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE 99995 DON'T KNOW 99998	
319	In what month and year was the sterilization performed?	MONTH <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
319A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
320	CHECK 319/319A, 215 AND 230: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 319/319A GO BACK TO 319/319A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).	YES <input type="checkbox"/> ↓ NO <input type="checkbox"/> ↓	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																																		
321	<p>CHECK 319/319A:</p> <p>YEAR IS 2003 OR LATER <input type="checkbox"/></p> <p>YEAR IS 2002 OR EARLIER <input type="checkbox"/></p> <p>ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING.</p> <p>ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2003.</p> <p>THEN SKIP TO → 331</p>																																																																				
322	<p>I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years.</p> <p>USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2003.</p> <p>USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS.</p> <p>ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH.</p> <p>ILLUSTRATIVE QUESTIONS:</p> <ul style="list-style-type: none"> * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then? 																																																																				
323	<p>CHECK 311/311A:</p> <p>CIRCLE METHOD CODE:</p> <p>IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.</p>	<table border="0"> <tr><td>NO CODE CIRCLED</td><td>00</td><td>→ 333</td></tr> <tr><td>FEMALE STERILIZATION</td><td>01</td><td>→ 326</td></tr> <tr><td>MALE STERILIZATION</td><td>02</td><td>→ 335</td></tr> <tr><td>PILL</td><td>03</td><td></td></tr> <tr><td>IUD</td><td>04</td><td></td></tr> <tr><td>INJECTABLES</td><td>05</td><td></td></tr> <tr><td>IMPLANTS</td><td>06</td><td></td></tr> <tr><td>CONDOM</td><td>07</td><td></td></tr> <tr><td>FEMALE CONDOM</td><td>08</td><td></td></tr> <tr><td>DIAPHRAGM</td><td>09</td><td></td></tr> <tr><td>FOAM/JELLY</td><td>10</td><td></td></tr> <tr><td>LACTATIONAL AMEN. METHOD ...</td><td>11</td><td>→ 324A</td></tr> <tr><td>RHYTHM METHOD</td><td>12</td><td>→ 324A</td></tr> <tr><td>WITHDRAWAL</td><td>13</td><td>→ 335</td></tr> <tr><td>OTHER METHOD</td><td>96</td><td>→ 335</td></tr> </table>	NO CODE CIRCLED	00	→ 333	FEMALE STERILIZATION	01	→ 326	MALE STERILIZATION	02	→ 335	PILL	03		IUD	04		INJECTABLES	05		IMPLANTS	06		CONDOM	07		FEMALE CONDOM	08		DIAPHRAGM	09		FOAM/JELLY	10		LACTATIONAL AMEN. METHOD ...	11	→ 324A	RHYTHM METHOD	12	→ 324A	WITHDRAWAL	13	→ 335	OTHER METHOD	96	→ 335																						
NO CODE CIRCLED	00	→ 333																																																																			
FEMALE STERILIZATION	01	→ 326																																																																			
MALE STERILIZATION	02	→ 335																																																																			
PILL	03																																																																				
IUD	04																																																																				
INJECTABLES	05																																																																				
IMPLANTS	06																																																																				
CONDOM	07																																																																				
FEMALE CONDOM	08																																																																				
DIAPHRAGM	09																																																																				
FOAM/JELLY	10																																																																				
LACTATIONAL AMEN. METHOD ...	11	→ 324A																																																																			
RHYTHM METHOD	12	→ 324A																																																																			
WITHDRAWAL	13	→ 335																																																																			
OTHER METHOD	96	→ 335																																																																			
324	<p>Where did you obtain (CURRENT METHOD) when you started using it?</p> <p>Where did you learn how to use the rhythm/lactational amenorrhea method?</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<table border="0"> <tr><td>PUBLIC SECTOR</td><td></td><td></td></tr> <tr><td>GOVT. HOSPITAL</td><td>11</td><td></td></tr> <tr><td>GOVT. HEALTH CENTER</td><td>12</td><td></td></tr> <tr><td>FAMILY PLANNING CLINIC</td><td>13</td><td></td></tr> <tr><td>MOBILE CLINIC</td><td>14</td><td></td></tr> <tr><td>FIELDWORKER</td><td>15</td><td></td></tr> <tr><td>OTHER PUBLIC _____</td><td>16</td><td></td></tr> <tr><td>(SPECIFY)</td><td></td><td></td></tr> <tr><td>PRIVATE MEDICAL SECTOR</td><td></td><td></td></tr> <tr><td>PRIVATE HOSPITAL/CLINIC ...</td><td>21</td><td></td></tr> <tr><td>PHARMACY</td><td>22</td><td></td></tr> <tr><td>PRIVATE DOCTOR</td><td>23</td><td></td></tr> <tr><td>MOBILE CLINIC</td><td>24</td><td></td></tr> <tr><td>FIELDWORKER</td><td>25</td><td></td></tr> <tr><td>OTHER PRIVATE MEDICAL _____</td><td>26</td><td></td></tr> <tr><td>(SPECIFY)</td><td></td><td></td></tr> <tr><td>OTHER SOURCE</td><td></td><td></td></tr> <tr><td>SHOP</td><td>31</td><td></td></tr> <tr><td>CHURCH</td><td>32</td><td></td></tr> <tr><td>FRIEND/RELATIVE</td><td>33</td><td></td></tr> <tr><td>OTHER _____</td><td>96</td><td></td></tr> <tr><td>(SPECIFY)</td><td></td><td></td></tr> </table>	PUBLIC SECTOR			GOVT. HOSPITAL	11		GOVT. HEALTH CENTER	12		FAMILY PLANNING CLINIC	13		MOBILE CLINIC	14		FIELDWORKER	15		OTHER PUBLIC _____	16		(SPECIFY)			PRIVATE MEDICAL SECTOR			PRIVATE HOSPITAL/CLINIC ...	21		PHARMACY	22		PRIVATE DOCTOR	23		MOBILE CLINIC	24		FIELDWORKER	25		OTHER PRIVATE MEDICAL _____	26		(SPECIFY)			OTHER SOURCE			SHOP	31		CHURCH	32		FRIEND/RELATIVE	33		OTHER _____	96		(SPECIFY)			
PUBLIC SECTOR																																																																					
GOVT. HOSPITAL	11																																																																				
GOVT. HEALTH CENTER	12																																																																				
FAMILY PLANNING CLINIC	13																																																																				
MOBILE CLINIC	14																																																																				
FIELDWORKER	15																																																																				
OTHER PUBLIC _____	16																																																																				
(SPECIFY)																																																																					
PRIVATE MEDICAL SECTOR																																																																					
PRIVATE HOSPITAL/CLINIC ...	21																																																																				
PHARMACY	22																																																																				
PRIVATE DOCTOR	23																																																																				
MOBILE CLINIC	24																																																																				
FIELDWORKER	25																																																																				
OTHER PRIVATE MEDICAL _____	26																																																																				
(SPECIFY)																																																																					
OTHER SOURCE																																																																					
SHOP	31																																																																				
CHURCH	32																																																																				
FRIEND/RELATIVE	33																																																																				
OTHER _____	96																																																																				
(SPECIFY)																																																																					

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
332	<p>Where did you obtain (CURRENT METHOD) the last time?</p> <p>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>PUBLIC SECTOR</p> <p>GOVT. HOSPITAL 11</p> <p>GOVT. HEALTH CENTER 12</p> <p>FAMILY PLANNING CLINIC 13</p> <p>MOBILE CLINIC 14</p> <p>FIELDWORKER 15</p> <p>OTHER PUBLIC _____ 16</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC ... 21</p> <p>PHARMACY 22</p> <p>PRIVATE DOCTOR 23</p> <p>MOBILE CLINIC 24</p> <p>FIELDWORKER 25</p> <p>OTHER PRIVATE MEDICAL _____ 26</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP 31</p> <p>CHURCH 32</p> <p>FRIEND/RELATIVE 33</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	<p>→ 335</p>
333	<p>Do you know of a place where you can obtain a method of family planning?</p>	<p>YES 1</p> <p>NO 2</p>	<p>→ 335</p>
334	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>PUBLIC SECTOR</p> <p>GOVT. HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIEND/RELATIVE O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
335	<p>In the last 12 months, were you visited by a fieldworker who talked to you about family planning?</p>	<p>YES 1</p> <p>NO 2</p>	
336	<p>In the last 12 months, have you visited a health facility for care for yourself (or your children)?</p>	<p>YES 1</p> <p>NO 2</p>	<p>→ 338</p>
337	<p>Did any staff member at the health facility speak to you about family planning methods?</p>	<p>YES 1</p> <p>NO 2</p>	
338	<p>In the last 12 months have you visited a health facility for family planning?</p>	<p>YES 1</p> <p>NO 2</p>	
339	<p>In the last 6 months have you discussed family planning with your spouse/partner?</p>	<p>YES 1</p> <p>NO 2</p>	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2003 OR LATER <input type="checkbox"/> NO BIRTHS IN 2003 OR LATER <input type="checkbox"/>	→ 576		
402	CHECK 215: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2003 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)			
403	LINE NUMBER FROM 212	LAST BIRTH LINE NO. <input type="text"/> <input type="text"/>	NEXT-TO-LAST BIRTH LINE NO. <input type="text"/> <input type="text"/>	SECOND-FROM-LAST BIRTH LINE NO. <input type="text"/> <input type="text"/>
404	FROM 212 AND 216	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>
405	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN 1 (SKIP TO 407) ←┐ LATER 2 NOT AT ALL 3 (SKIP TO 407) ←┐	THEN 1 (SKIP TO 432) ←┐ LATER 2 NOT AT ALL 3 (SKIP TO 432) ←┐	THEN 1 (SKIP TO 432) ←┐ LATER 2 NOT AT ALL 3 (SKIP TO 432) ←┐
406	How much longer would you have liked to wait?	MONTHS ..1 <input type="text"/> <input type="text"/> YEARS ..2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998	MONTHS ..1 <input type="text"/> <input type="text"/> YEARS ..2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998	MONTHS ..1 <input type="text"/> <input type="text"/> YEARS ..2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE B MCH AID C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . D COMMUNITY/VILLAGE HEALTH WORKER ... E OTHER _____ X (SPECIFY) NO ONE Y (SKIP TO 414) ←┐		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
408	<p>Where did you receive antenatal care for this pregnancy?</p> <p>Anywhere else?</p> <p>PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND CIRCLE THE APPROPRIATE CODE(S).</p> <p>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>HOME YOUR HOME ... A OTHER HOME ... B</p> <p>PUBLIC SECTOR GOVT. HOSPITAL C GOVT. HEALTH CENTER D GOVT. HEALTH POST E OTHER PUBLIC _____ F (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC G OTHER PRIVATE MED. _____ H (SPECIFY)</p> <p>OTHER _____ X (SPECIFY)</p>		
409	<p>How many months pregnant were you when you first received antenatal care for this pregnancy?</p>	<p>MONTHS ... <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 98</p>		
410	<p>How many times did you receive antenatal care during this pregnancy?</p>	<p>NUMBER OF TIMES . <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 98</p>		
411	<p>As part of your antenatal care during this pregnancy, were any of the following done at least once?</p> <p>Were you weighed?</p> <p>Was your blood pressure measured?</p> <p>Did you give a urine sample?</p> <p>Did you give a blood sample?</p>	<p>YES NO</p> <p>WEIGHT ... 1 2</p> <p>BP 1 2</p> <p>URINE 1 2</p> <p>BLOOD ... 1 2</p>		
412	<p>During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?</p>	<p>YES 1 NO 2 (SKIP TO 414) ← DON'T KNOW 8</p>		
413	<p>Were you told where to go if you had any of these complications?</p>	<p>YES 1 NO 2 DON'T KNOW 8</p>		
414	<p>During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?</p>	<p>YES 1 NO 2 (SKIP TO 417) ← DON'T KNOW 8</p>		
415	<p>During this pregnancy, how many times did you get this tetanus injection?</p>	<p>TIMES <input type="text"/></p> <p>DON'T KNOW ... 8</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
416	CHECK 415:	2 OR MORE TIMES <input type="checkbox"/> OTHER <input type="checkbox"/> (SKIP TO 421)		
417	At any time before this pregnancy, did you receive any tetanus injections, either to protect yourself or another baby?	YES 1 NO 2 (SKIP TO 421) ← DON'T KNOW 8		
418	Before this pregnancy, how many other times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES <input type="text"/> DON'T KNOW 8		
419	In what month and year did you receive the last tetanus injection before this pregnancy?	MONTH ... <input type="text"/> <input type="text"/> DK MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> (SKIP TO 421) ← DK YEAR 9998		
420	How many years ago did you receive that tetanus injection?	YEARS AGO <input type="text"/> <input type="text"/>		
421	During this pregnancy, were you given or did you buy any iron tablets or iron syrup? SHOW TABLETS/SYRUP.	YES 1 NO 2 (SKIP TO 423) ← DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets or syrup? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 998		
423	During this pregnancy, did you take any drug for intestinal worms?	YES 1 NO 2 DON'T KNOW 8		
424	During this pregnancy, did you have difficulty with your vision during daylight?	YES 1 NO 2 DON'T KNOW 8		
425	During this pregnancy, did you suffer from night blindness [USE LOCAL TERM]?	YES 1 NO 2 DON'T KNOW 8		
426	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES 1 NO 2 (SKIP TO 432) ← DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____		
427	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	SP/FANSIDAR A CHLOROQUINE ... B OTHER _____ X (SPECIFY) DON'T KNOW Z				
428	CHECK 427: DRUGS TAKEN FOR MALARIA PREVENTION.	CODE 'A' CODE CIRCLED A' NOT <input type="checkbox"/> <input type="checkbox"/> CIRCLED (SKIP TO 432) ←				
429	How many times did you take (SP/Fansidar) during this pregnancy?	TIMES <input type="text"/> <input type="text"/>				
430	CHECK 407: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY	CODE 'A', OTHER <input type="checkbox"/> B' OR 'C' CIRCLED <input type="checkbox"/> CIRCLED (SKIP TO 432) ←				
431	Did you get the (SP/Fansidar) during any antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT .. 1 ANOTHER FACILITY VISIT 2 OTHER SOURCE 6				
432	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8			VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8	VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8
433	Was (NAME) weighed at birth?	YES 1 NO 2 (SKIP TO 435) ← DON'T KNOW 8			YES 1 NO 2 (SKIP TO 435) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 435) ← DON'T KNOW 8
434	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> KG FROM RECALL 2 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . 99.998			KG FROM CARD 1 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> KG FROM RECALL 2 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . 99.998	KG FROM CARD 1 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> KG FROM RECALL 2 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . 99.998

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____																																				
435	<p>Who assisted with the delivery of (NAME)?</p> <p>Anyone else?</p> <p>PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED.</p> <p>IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.</p>	<p>HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE . B MCH AID C</p> <p>OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE Y</p>	<p>HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE . B MCH AID C</p> <p>OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE Y</p>	<p>HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE . B MCH AID C</p> <p>OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE Y</p>																																				
436	<p>Where did you give birth to (NAME)?</p> <p>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____ (NAME OF PLACE)</p>	<p>HOME YOUR HOME . . . 11 (SKIP TO 443) ← OTHER HOME . . . 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER 22 GOVT. HEALTH POST 23 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY) (SKIP TO 443) ←</p>	<p>HOME YOUR HOME . . . 11 (SKIP TO 444) ← OTHER HOME . . . 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER 22 GOVT. HEALTH POST 23 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY) (SKIP TO 444) ←</p>	<p>HOME YOUR HOME . . . 11 (SKIP TO 444) ← OTHER HOME . . . 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER 22 GOVT. HEALTH POST 23 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY) (SKIP TO 444) ←</p>																																				
437	<p>How long after (NAME) was delivered did you stay there?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.</p>	<p>HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . 998</p>													<p>HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . 998</p>													<p>HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . 998</p>												
438	<p>Was (NAME) delivered by caesarean section?</p>	<p>YES 1 NO 2</p>	<p>YES 1 NO 2</p>	<p>YES 1 NO 2</p>																																				
439	<p>Before you were discharged after (NAME) was born, did any health care provider check on your health?</p>	<p>YES 1 NO 2 (SKIP TO 442) ←</p>	<p>YES 1 (SKIP TO 455) ← NO 2</p>	<p>YES 1 (SKIP TO 455) ← NO 2</p>																																				
440	<p>How long after delivery did the first check take place?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.</p>	<p>HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . 998</p>																																						

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____						
441	Who checked on your health at that time? PERSON.	HEALTH PERSONNEL DOCTOR 11 NURSE/MIDWIFE 12 MCH AID 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . 22 OTHER _____ 96 (SPECIFY) (SKIP TO 453) ←								
442	After you were discharged, did any health care provider or a traditional birth attendant check on your health?	YES 1 (SKIP TO 445) ← NO 2 (SKIP TO 453) ←			YES 1 (SKIP TO 455) ← NO 2	YES 1 (SKIP TO 455) ← NO 2				
443	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . A FACILITY NOT OPEN . B TOO FAR/ NO TRANSPORTATION C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVIDER AT FACILITY . . E HUSBAND/FAMILY DID NOT ALLOW . . F NOT NECESSARY . . G NOT CUSTOMARY . . H OTHER _____ X (SPECIFY) X								
444	After (NAME) was born, did any health care provider or a traditional birth attendant check on your health?	YES 1 NO 2 (SKIP TO 449) ←			YES 1 NO 2	YES 1 NO 2				
445	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 <table border="1"><tr><td></td><td></td></tr></table> DAYS 2 <table border="1"><tr><td></td><td></td></tr></table> WEEKS 3 <table border="1"><tr><td></td><td></td></tr></table> DON'T KNOW . . . 998								
446	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR 11 NURSE/MIDWIFE 12 MCH AID 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . 22 OTHER _____ 96 (SPECIFY)								

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
447	<p>Where did this first check take place?</p> <p>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>HOME YOUR HOME . . . 11 OTHER HOME . . . 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER 22 GOVT. HEALTH POST 23 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY)</p>		
448	CHECK 442:	<p>YES NOT ASKED</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(SKIP TO 453)</p>		
449	In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on his/her health?	<p>YES 1 NO 2 (SKIP TO 453) ← DON'T KNOW 8</p>		
450	<p>How many hours, days or weeks after the birth of (NAME) did the first check take place?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.</p>	<p>HRS AFTER BIRTH .. 1 <input type="text"/><input type="text"/></p> <p>DAYS AFTER BIRTH .. 2 <input type="text"/><input type="text"/></p> <p>WKS AFTER BIRTH .. 3 <input type="text"/><input type="text"/></p> <p>DON'T KNOW . . . 998</p>		
451	<p>Who checked on (NAME)'s health at that time?</p> <p>PROBE FOR MOST QUALIFIED PERSON.</p>	<p>HEALTH PERSONNEL DOCTOR 11 NURSE/MIDWIFE 12 MCH AID 13</p> <p>OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . 22</p> <p>OTHER _____ 96 (SPECIFY)</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____				
452	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME ... 11 OTHER HOME ... 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER 22 GOVT. HEALTH POST 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)						
453	In the first two months after delivery, did you receive a vitamin A dose (like this/any of these)? SHOW COMMON TYPES OF CAPSULES.	YES 1 NO 2 DON'T KNOW 8						
454	Has your menstrual period returned since the birth of (NAME)?	YES 1 (SKIP TO 456) ← NO 2 (SKIP TO 457) ←						
455	Did your period return between the birth of (NAME) and your next pregnancy?							
456	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98				
457	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG- <input type="checkbox"/> PREGNANT OR UNSURE <input type="checkbox"/> NANT (SKIP TO 459) ←						
458	Have you begun to have sexual intercourse again since the birth of (NAME)?	YES 1 NO 2 (SKIP TO 460) ←						
459	For how many months after the birth of (NAME) did you <u>not</u> have sexual intercourse?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98				
460	Did you ever breastfeed (NAME)?	YES 1 NO 2 (SKIP TO 467) ←	YES 1 NO 2 (SKIP TO 467) ←	YES 1 NO 2 (SKIP TO 467) ←				

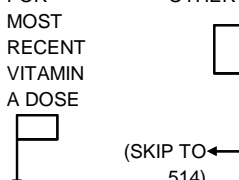
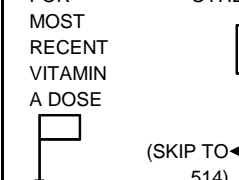
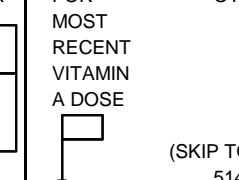
NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
461	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY ... 000 HOURS 1 <input type="text"/> <input type="text"/> DAYS 2 <input type="text"/> <input type="text"/>		
462	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES 1 NO 2 (SKIP TO 464) ←		
463	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) ... A PLAIN WATER ... B SUGAR OR GLUCOSE WATER ... C GRUPE WATER ... D SUGAR-SALT-WATER SOLUTION E FRUIT JUICE F INFANT FORMULA ... G TEA/INFUSIONS ... H HONEY I OTHER _____ X (SPECIFY)		
464	CHECK 404: IS CHILD LIVING?	LIVING DEAD <input type="checkbox"/> <input type="checkbox"/> (SKIP TO 466) ←		
465	Are you still breastfeeding (NAME)?	YES 1 (SKIP TO 468) ← NO 2		
466	For how many months did you breastfeed (NAME)?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW ... 98	MONTHS ... <input type="text"/> <input type="text"/> STILL BF 95 DON'T KNOW ... 98	MONTHS ... <input type="text"/> <input type="text"/> STILL BF 95 DON'T KNOW ... 98
467	CHECK 404: IS CHILD LIVING?	LIVING DEAD <input type="checkbox"/> <input type="checkbox"/> (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO (SKIP TO 470) TO 501)	LIVING DEAD <input type="checkbox"/> <input type="checkbox"/> (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO (SKIP TO 470) TO 501)	LIVING DEAD <input type="checkbox"/> <input type="checkbox"/> (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
468	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . <input type="text"/> <input type="text"/>		
469	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . <input type="text"/> <input type="text"/>		
470	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
471		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION AND HEALTH AND CHILD'S AND WOMAN'S NUTRITION

501	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2003 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).												
502	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER <input type="text"/> <input type="text"/>				NEXT-TO-LAST BIRTH LINE NUMBER <input type="text"/> <input type="text"/>				SECOND-FROM-LAST BIRTH LINE NUMBER <input type="text"/> <input type="text"/>			
503	FROM 212 AND 216	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 573)				NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 573)				NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 573)			
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN 1 (SKIP TO 506) ← YES, NOT SEEN 2 (SKIP TO 508) ← NO CARD 3				YES, SEEN 1 (SKIP TO 506) ← YES, NOT SEEN 2 (SKIP TO 508) ← NO CARD 3				YES, SEEN 1 (SKIP TO 506) ← YES, NOT SEEN 2 (SKIP TO 508) ← NO CARD 3			
505	Did you ever have a vaccination card for (NAME)?	YES 1 (SKIP TO 508) ← NO 2				YES 1 (SKIP TO 508) ← NO 2				YES 1 (SKIP TO 508) ← NO 2			
506	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED. (3) IF MORE THAN TWO VITAMIN 'A' DOSES, RECORD DATES FOR MOST RECENT AND SECOND MOST RECENT DOSES.												
		LAST BIRTH DAY MONTH YEAR				NEXT-TO-LAST BIRTH DAY MONTH YEAR				SECOND-FROM-LAST BIRTH DAY MONTH YEAR			
		BCG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BCG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BCG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		POLIO 0 (POLIO GIVEN AT BIRTH)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		POLIO 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		POLIO 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		POLIO 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		DPT 1/ PENTA 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		DPT 2/ PENTA 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		DPT 3/ PENTA3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		MEASLES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MEA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MEA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		VITAMIN A (MOST RECENT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VIT A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VIT A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		VITAMIN A (2nd MOST RECENT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VIT A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VIT A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
506A	CHECK 506:	BCG TO MEASLES ALL RECORDED <input type="checkbox"/> OTHER <input type="checkbox"/> (GO TO 510)				BCG TO MEASLES ALL RECORDED <input type="checkbox"/> OTHER <input type="checkbox"/> (GO TO 510)				BCG TO MEASLES ALL RECORDED <input type="checkbox"/> OTHER <input type="checkbox"/> (GO TO 510)			

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
507	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT/PENTA 1-3, AND/OR MEASLES VACCINES.	YES 1 (PROBE FOR ←) VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) ← NO 2 (SKIP TO 510) ← DONT KNOW 8	YES 1 (PROBE FOR ←) VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) ← NO 2 (SKIP TO 510) ← DONT KNOW 8	YES 1 (PROBE FOR ←) VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) ← NO 2 (SKIP TO 510) ← DONT KNOW 8
508	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization campaign?	YES 1 NO 2 (SKIP TO 512) ← DONT KNOW 8	YES 1 NO 2 (SKIP TO 512) ← DONT KNOW 8	YES 1 NO 2 (SKIP TO 512) ← DONT KNOW 8
509	Please tell me if (NAME) received any of the following vaccinations:			
509A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES 1 NO 2 DONT KNOW 8	YES 1 NO 2 DONT KNOW 8	YES 1 NO 2 DONT KNOW 8
509B	Polio vaccine, that is, drops in the mouth?	YES 1 NO 2 (SKIP TO 509E) ← DONT KNOW 8	YES 1 NO 2 (SKIP TO 509E) ← DONT KNOW 8	YES 1 NO 2 (SKIP TO 509E) ← DONT KNOW 8
509C	Was the first polio vaccine received in the first two weeks after birth or later?	FIRST 2 WEEKS ... 1 LATER 2	FIRST 2 WEEKS ... 1 LATER 2	FIRST 2 WEEKS ... 1 LATER 2
509D	How many times was the polio vaccine received?	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>
509E	A DPT/PENTA vaccination, that is, an injection given in the thigh sometimes at the same time as polio drops?	YES 1 NO 2 (SKIP TO 509G) ← DONT KNOW 8	YES 1 NO 2 (SKIP TO 509G) ← DONT KNOW 8	YES 1 NO 2 (SKIP TO 509G) ← DONT KNOW 8
509F	How many times was a DPT/PENTA vaccination received?	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>
509G	A measles injection - that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles?	YES 1 NO 2 DONT KNOW 8	YES 1 NO 2 DONT KNOW 8	YES 1 NO 2 DONT KNOW 8
510	Were any of the vaccinations (NAME) received during the last two years given as part of a national immunization day campaign?	YES 1 NO 2 NO VACCINATION IN THE LAST 2 YRS. 3 DONT KNOW 8 (SKIP TO 512) ←	YES 1 NO 2 NO VACCINATION IN THE LAST 2 YRS. 3 DONT KNOW 8 (SKIP TO 512) ←	YES 1 NO 2 NO VACCINATION IN THE LAST 2 YRS. 3 DONT KNOW 8 (SKIP TO 512) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
511	At which national immunization day campaigns did (NAME) receive vaccinations? RECORD ALL CAMPAIGNS MENTIONED.	MEASLES/MALARIA NETS (MEASLES/11-2006)... A NATIONAL IMMUNIZ DAY (POLIO/12-2005) .. B NATIONAL IMMUNIZ DAY (POLIO/11-2004) .. C MEASLES (MEASLES/10-2003) D	MEASLES/MALARIA NETS (MEASLES/11-2006)... A NATIONAL IMMUNIZ DAY (POLIO/12-2005) .. B NATIONAL IMMUNIZ DAY (POLIO/11-2004) .. C MEASLES (MEASLES/10-2003) D	MEASLES/MALARIA NETS (MEASLES/11-2006)... A NATIONAL IMMUNIZ DAY (POLIO/12-2005) .. B NATIONAL IMMUNIZ DAY (POLIO/11-2004) .. C MEASLES (MEASLES/10-2003) D
512	CHECK 506: DATE SHOWN FOR VITAMIN A DOSE	DATE FOR MOST RECENT VITAMIN A DOSE OTHER 	DATE FOR MOST RECENT VITAMIN A DOSE OTHER 	DATE FOR MOST RECENT VITAMIN A DOSE OTHER 
513	According to (NAME)'s health card, he/she received a vitamin A dose (like this/any of these) in (MONTH AND YEAR OF MOST RECENT DOSE FROM CARD). Has (NAME) received another vitamin A dose since then? SHOW COMMON TYPES OF CAPSULES.	YES 1 (SKIP TO 515) ← NO 2 (SKIP TO 516) ← DON'T KNOW 8	YES 1 (SKIP TO 515) ← NO 2 (SKIP TO 516) ← DON'T KNOW 8	YES 1 (SKIP TO 515) ← NO 2 (SKIP TO 516) ← DON'T KNOW 8
514	HAS (NAME) ever received a vitamin A dose (like this/ any of these)? SHOW COMMON TYPES OF CAPSULES.	YES 1 NO 2 (SKIP TO 516) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 516) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 516) ← DON'T KNOW 8
515	Did (NAME) receive a vitamin A dose within the last six months?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
516	In the last seven days, did (NAME) take iron pills, sprinkles with iron, or iron syrup (like this/any of these)? SHOW COMMON TYPES OF PILLS/SPRINKLES/ SYRUPS.	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
517	Has (NAME) taken any drug for intestinal worms in the last six months?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
518	Has (NAME) had diarrhea in the last 2 weeks?	YES 1 NO 2 (SKIP TO 533) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 533) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 533) ← DON'T KNOW 8
519	Was there any blood in the stools?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
520	<p>Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk).</p> <p>Was he/she given less than usual to drink, about the same amount, or more than usual to drink?</p> <p>IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS . 2</p> <p>ABOUT THE SAME . 3</p> <p>MORE 4</p> <p>NOTHING TO DRINK 5</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS . 2</p> <p>ABOUT THE SAME . 3</p> <p>MORE 4</p> <p>NOTHING TO DRINK 5</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS . 2</p> <p>ABOUT THE SAME . 3</p> <p>MORE 4</p> <p>NOTHING TO DRINK 5</p> <p>DON'T KNOW 8</p>
521	<p>When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat?</p> <p>IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS . 2</p> <p>ABOUT THE SAME . 3</p> <p>MORE 4</p> <p>STOPPED FOOD . 5</p> <p>NEVER GAVE FOOD 6</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS . 2</p> <p>ABOUT THE SAME . 3</p> <p>MORE 4</p> <p>STOPPED FOOD . 5</p> <p>NEVER GAVE FOOD 6</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS . 2</p> <p>ABOUT THE SAME . 3</p> <p>MORE 4</p> <p>STOPPED FOOD . 5</p> <p>NEVER GAVE FOOD 6</p> <p>DON'T KNOW 8</p>
522	<p>Did you seek advice or treatment for the diarrhea from any source?</p>	<p>YES 1</p> <p>NO 2</p> <p>(SKIP TO 527) ←</p>	<p>YES 1</p> <p>NO 2</p> <p>(SKIP TO 527) ←</p>	<p>YES 1</p> <p>NO 2</p> <p>(SKIP TO 527) ←</p>
523	<p>Where did you seek advice or treatment?</p> <p>Anywhere else?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).</p> <p>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>PUBLIC SECTOR</p> <p>GOVT HOSPITAL A</p> <p>GOVT HEALTH CENTER B</p> <p>GOVT HEALTH POST C</p> <p>MOBILE CLINIC . D</p> <p>FIELDWORKER . E</p> <p>OTHER PUBLIC F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PVT. HOSPITAL/CLINIC G</p> <p>PHARMACY ... H</p> <p>PVT DOCTOR ... I</p> <p>MOBILE CLINIC . J</p> <p>FIELDWORKER . K</p> <p>OTHER PRIVATE MED. _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>TRADITIONAL PRACTITIONER N</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	<p>PUBLIC SECTOR</p> <p>GOVT HOSPITAL A</p> <p>GOVT HEALTH CENTER B</p> <p>GOVT HEALTH POST C</p> <p>MOBILE CLINIC . D</p> <p>FIELDWORKER . E</p> <p>OTHER PUBLIC F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PVT. HOSPITAL/CLINIC G</p> <p>PHARMACY ... H</p> <p>PVT DOCTOR ... I</p> <p>MOBILE CLINIC . J</p> <p>FIELDWORKER . K</p> <p>OTHER PRIVATE MED. _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>TRADITIONAL PRACTITIONER N</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	<p>PUBLIC SECTOR</p> <p>GOVT HOSPITAL A</p> <p>GOVT HEALTH CENTER B</p> <p>GOVT HEALTH POST C</p> <p>MOBILE CLINIC . D</p> <p>FIELDWORKER . E</p> <p>OTHER PUBLIC F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PVT. HOSPITAL/CLINIC G</p> <p>PHARMACY ... H</p> <p>PVT DOCTOR ... I</p> <p>MOBILE CLINIC . J</p> <p>FIELDWORKER . K</p> <p>OTHER PRIVATE MED. _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>TRADITIONAL PRACTITIONER N</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>
524	CHECK 523:	<p>TWO OR ONLY</p> <p><input type="checkbox"/> MORE ONE <input type="checkbox"/></p> <p>CODES CODE</p> <p>CIRCLED CIRCLED</p> <p>(SKIP TO 526) ←</p>	<p>TWO OR ONLY</p> <p><input type="checkbox"/> MORE ONE <input type="checkbox"/></p> <p>CODES CODE</p> <p>CIRCLED CIRCLED</p> <p>(SKIP TO 526) ←</p>	<p>TWO OR ONLY</p> <p><input type="checkbox"/> MORE ONE <input type="checkbox"/></p> <p>CODES CODE</p> <p>CIRCLED CIRCLED</p> <p>(SKIP TO 526) ←</p>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
525	Where did you first seek advice or treatment? USE LETTER CODE FROM 523.	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>
526	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS <input type="text"/> <input type="text"/>	DAYS <input type="text"/> <input type="text"/>	DAYS <input type="text"/> <input type="text"/>
527	Does (NAME) still have diarrhea?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
528	Was he/she given any of the following to drink at any time since he/she started having the diarrhea: a) A fluid made from a special packet called ORS? c) A government-recommended homemade fluid SSS -salt and sugar solution?	YES NO DK FLUID FROM ORS PKT .. 1 2 8 HOMEMADE FLUID ... 1 2 8	YES NO DK FLUID FROM ORS PKT .. 1 2 8 HOMEMADE FLUID ... 1 2 8	YES NO DK FLUID FROM ORS PKT .. 1 2 8 HOMEMADE FLUID ... 1 2 8
529	Was anything (else) given to treat the diarrhea?	YES 1 NO 2 (SKIP TO 533) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 533) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 533) ← DON'T KNOW 8
530	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC A ANTIMOTILITY . B ZINC C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) D UNKNOWN PILL OR SYRUP ... E INJECTION ANTIBIOTIC F NON-ANTIBIOTIC . G UNKNOWN INJECTION ... H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MEDICINE J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC A ANTIMOTILITY . B ZINC C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) D UNKNOWN PILL OR SYRUP ... E INJECTION ANTIBIOTIC F NON-ANTIBIOTIC . G UNKNOWN INJECTION ... H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MEDICINE J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC A ANTIMOTILITY . B ZINC C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) D UNKNOWN PILL OR SYRUP ... E INJECTION ANTIBIOTIC F NON-ANTIBIOTIC . G UNKNOWN INJECTION ... H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MEDICINE J OTHER _____ X (SPECIFY)
531	CHECK 530: GIVEN ZINC?	CODE "C" CIRCLED <input type="checkbox"/> CODE "C" NOT CIRCLED <input type="checkbox"/> (SKIP TO 533) ←	CODE "C" CIRCLED <input type="checkbox"/> CODE "C" NOT CIRCLED <input type="checkbox"/> (SKIP TO 533) ←	CODE "C" CIRCLED <input type="checkbox"/> CODE "C" NOT CIRCLED <input type="checkbox"/> (SKIP TO 533) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
532	How many times was (NAME) given zinc?	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98
533	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
534	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES 1 NO 2 (SKIP TO 537) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 537) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 537) ← DON'T KNOW 8
535	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES 1 NO 2 (SKIP TO 538) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 538) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 538) ← DON'T KNOW 8
536	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY ... 1 NOSE ONLY ... 2 BOTH 3 OTHER 6 (SPECIFY) _____ DON'T KNOW 8 (SKIP TO 538) ←	CHEST ONLY ... 1 NOSE ONLY ... 2 BOTH 3 OTHER 6 (SPECIFY) _____ DON'T KNOW 8 (SKIP TO 538) ←	CHEST ONLY ... 1 NOSE ONLY ... 2 BOTH 3 OTHER 6 (SPECIFY) _____ DON'T KNOW 8 (SKIP TO 538) ←
537	CHECK 533: HAD FEVER?	YES <input type="checkbox"/> NO OR DK <input type="checkbox"/> ↓ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES <input type="checkbox"/> NO OR DK <input type="checkbox"/> ↓ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES <input type="checkbox"/> NO OR DK <input type="checkbox"/> ↓ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)
538	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8
539	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
540	Did you seek advice or treatment for the illness from any source?	YES 1 NO 2 (SKIP TO 545) ←	YES 1 NO 2 (SKIP TO 545) ←	YES 1 NO 2 (SKIP TO 545) ←
541	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER B GOVT HEALTH POST C MOBILE CLINIC D FIELDWORKER E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC G PHARMACY H PVT DOCTOR I MOBILE CLINIC J FIELDWORKER K OTHER PRIVATE MED. _____ L (SPECIFY) OTHER SOURCE SHOP M TRADITIONAL PRACTITIONER N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL . A GOVT HEALTH CENTER B GOVT HEALTH POST C MOBILE CLINIC . D FIELDWORKER . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ CLINIC G PHARMACY ... H PVT DOCTOR ... I MOBILE CLINIC . J FIELDWORKER . K OTHER PRIVATE MED. _____ L (SPECIFY) OTHER SOURCE SHOP M TRADITIONAL PRACTITIONER N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL . A GOVT HEALTH CENTER B GOVT HEALTH POST C MOBILE CLINIC . D FIELDWORKER . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ CLINIC G PHARMACY ... H PVT DOCTOR ... I MOBILE CLINIC . J FIELDWORKER . K OTHER PRIVATE MED. _____ L (SPECIFY) OTHER SOURCE SHOP M TRADITIONAL PRACTITIONER N OTHER _____ X (SPECIFY)
542	CHECK 541:	TWO OR ONLY <input type="checkbox"/> MORE ONE CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 544) ←	TWO OR ONLY <input type="checkbox"/> MORE ONE CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 544) ←	TWO OR ONLY <input type="checkbox"/> MORE ONE CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 544) ←
543	Where did you first seek advice or treatment? USE LETTER CODE FROM 541.	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>
544	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS <input type="text"/>	DAYS <input type="text"/>	DAYS <input type="text"/>
545	Is (NAME) still sick with a (fever/ cough)?	FEVER ONLY 1 COUGH ONLY ... 2 BOTH FEVER AND COUGH 3 NO, NEITHER 4 DON'T KNOW ... 8	FEVER ONLY 1 COUGH ONLY ... 2 BOTH FEVER AND COUGH 3 NO, NEITHER 4 DON'T KNOW ... 8	FEVER ONLY 1 COUGH ONLY ... 2 BOTH FEVER AND COUGH 3 NO, NEITHER 4 DON'T KNOW ... 8
546	At any time during the illness, did (NAME) take any drugs for the illness?	YES 1 NO 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8	YES 1 NO 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8	YES 1 NO 2 (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
547	<p>What drugs did (NAME) take?</p> <p>Any other drugs?</p> <p>RECORD ALL MENTIONED.</p>	<p>ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE . B AMODIAQUINE . C QUININE D COMBINATION WITH ARTEMISININ . E COUNTRY SPEC. GBANGBA ROOT/ SHEKU TURE LEAVES F OTHER ANTI- MALARIAL _____ G (SPECIFY)</p> <p>ANTIBIOTIC DRUGS PILL/SYRUP ... H INJECTION ... I</p> <p>OTHER DRUGS ASPIRIN J ACETA- MINOPHEN ... K IBUPROFEN ... L</p> <p>OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>	<p>ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE . B AMODIAQUINE . C QUININE D COMBINATION WITH ARTEMISININ . E COUNTRY SPEC. GBANGBA ROOT/ SHEKU TURE LEAVES F OTHER ANTI- MALARIAL _____ G (SPECIFY)</p> <p>ANTIBIOTIC DRUGS PILL/SYRUP ... H INJECTION ... I</p> <p>OTHER DRUGS ASPIRIN J ACETA- MINOPHEN ... K IBUPROFEN ... L</p> <p>OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>	<p>ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE . B AMODIAQUINE . C QUININE D COMBINATION WITH ARTEMISININ . E COUNTRY SPEC. GBANGBA ROOT/ SHEKU TURE LEAVES F OTHER ANTI- MALARIAL _____ G (SPECIFY)</p> <p>ANTIBIOTIC DRUGS PILL/SYRUP ... H INJECTION ... I</p> <p>OTHER DRUGS ASPIRIN J ACETA- MINOPHEN ... K IBUPROFEN ... L</p> <p>OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>
548	<p>CHECK 547: ANY CODE A-H CIRCLED?</p>	<p>YES NO</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)</p>	<p>YES NO</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)</p>	<p>YES NO</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)</p>
549	<p>Did you already have (NAME OF DRUG FROM 547) at home when the child became ill?</p> <p>ASK SEPARATELY FOR EACH OF THE DRUGS 'A' THROUGH 'H' THAT THE CHILD IS RECORDED AS HAVING TAKEN IN 547.</p> <p>IF YES FOR ANY DRUG, CIRCLE CODE FOR THAT DRUG.</p> <p>IF NO FOR ALL DRUGS, CIRCLE 'Y'.</p>	<p>ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE . B AMODIAQUINE... C QUININE D COMBINATION WITH ARTEMISININ . E COUNTRY SPEC. GBANGBA ROOT/ SHEKU TURE LEAVES F OTHER ANTI- MALARIAL ... G</p> <p>ANTIBIOTIC PILL/ SYRUP H</p> <p>NO DRUG AT HOME . Y</p>	<p>ANTIMALARIAL DRUGS SP/FANSIDAR .. A CHLOROQUINE . B AMODIAQUINE... C QUININE D COMBINATION WITH ARTEMISININ . E COUNTRY SPEC. GBANGBA ROOT/ SHEKU TURE LEAVES F OTHER ANTI- MALARIAL ... G</p> <p>ANTIBIOTIC PILL/ SYRUP H</p> <p>NO DRUG AT HOME . Y</p>	<p>ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE . B AMODIAQUINE... C QUININE D COMBINATION WITH ARTEMISININ . E COUNTRY SPEC. GBANGBA ROOT/ SHEKU TURE LEAVES F OTHER ANTI- MALARIAL ... G</p> <p>ANTIBIOTIC PILL/ SYRUP H</p> <p>NO DRUG AT HOME . Y</p>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
550	CHECK 547: ANY CODE A-G CIRCLED?	YES <input type="checkbox"/> NO <input type="checkbox"/> (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES <input type="checkbox"/> NO <input type="checkbox"/> (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES <input type="checkbox"/> NO <input type="checkbox"/> (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)
551	CHECK 547: SP/FANSIDAR ('A') GIVEN	CODE 'A' CIRCLED <input type="checkbox"/> CODE 'A' NOT CIRCLED <input type="checkbox"/> (SKIP TO 554)	CODE 'A' CIRCLED <input type="checkbox"/> CODE 'A' NOT CIRCLED <input type="checkbox"/> (SKIP TO 554)	CODE 'A' CIRCLED <input type="checkbox"/> CODE 'A' NOT CIRCLED <input type="checkbox"/> (SKIP TO 554)
552	How long after the fever started did (NAME) first take SP/Fansidar?	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT' KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT' KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT' KNOW . . . 8
553	For how many days did (NAME) take the SP/Fansidar? IF 7 DAYS OR MORE, RECORD 7.	DAYS <input type="checkbox"/> DONT' KNOW . . . 8	DAYS <input type="checkbox"/> DONT' KNOW . . . 8	DAYS <input type="checkbox"/> DONT' KNOW . . . 8
554	CHECK 547: CHLOROQUINE ('B') GIVEN	CODE 'B' CIRCLED <input type="checkbox"/> CODE 'B' NOT CIRCLED <input type="checkbox"/> (SKIP TO 557)	CODE 'B' CIRCLED <input type="checkbox"/> CODE 'B' NOT CIRCLED <input type="checkbox"/> (SKIP TO 557)	CODE 'B' CIRCLED <input type="checkbox"/> CODE 'B' NOT CIRCLED <input type="checkbox"/> (SKIP TO 557)
555	How long after the fever started did (NAME) first take chloroquine?	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT' KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT' KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT' KNOW . . . 8
556	For how many days did (NAME) take the chloroquine? IF 7 DAYS OR MORE, RECORD 7.	DAYS <input type="checkbox"/> DONT' KNOW . . . 8	DAYS <input type="checkbox"/> DONT' KNOW . . . 8	DAYS <input type="checkbox"/> DONT' KNOW . . . 8
557	CHECK 547: AMODIAQUINE ('C') GIVEN	CODE 'C' CIRCLED <input type="checkbox"/> CODE 'C' NOT CIRCLED <input type="checkbox"/> (SKIP TO 560)	CODE 'C' CIRCLED <input type="checkbox"/> CODE 'C' NOT CIRCLED <input type="checkbox"/> (SKIP TO 560)	CODE 'C' CIRCLED <input type="checkbox"/> CODE 'C' NOT CIRCLED <input type="checkbox"/> (SKIP TO 560)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
566	CHECK 547: COUNTRY SPECIFIC GBANGBA ROOT/SHEKU TURE LEAVES ('F') GIVEN	CODE 'F' CIRCLED <input type="checkbox"/> CODE 'F' NOT CIRCLED <input type="checkbox"/> (SKIP TO 569)	CODE 'F' CIRCLED <input type="checkbox"/> CODE 'F' NOT CIRCLED <input type="checkbox"/> (SKIP TO 569)	CODE 'F' CIRCLED <input type="checkbox"/> CODE 'F' NOT CIRCLED <input type="checkbox"/> (SKIP TO 569)
567	How long after the fever started did (NAME) first take gbangba root/sheku ture leaves?	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT KNOW . . . 8
568	For how many days did (NAME) take the gbangba root/sheku ture leaves? IF 7 DAYS OR MORE, RECORD 7.	DAYS <input type="checkbox"/> DONT KNOW . . . 8	DAYS <input type="checkbox"/> DONT KNOW . . . 8	DAYS <input type="checkbox"/> DONT KNOW . . . 8
569	CHECK 547: OTHER ANTIMALARIAL ('G') GIVEN	CODE 'G' CIRCLED <input type="checkbox"/> CODE 'G' NOT CIRCLED <input type="checkbox"/> (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	CODE 'G' CIRCLED <input type="checkbox"/> CODE 'G' NOT CIRCLED <input type="checkbox"/> (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	CODE 'G' CIRCLED <input type="checkbox"/> CODE 'G' NOT CIRCLED <input type="checkbox"/> (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)
570	How long after the fever started did (NAME) first take (OTHER ANTIMALARIAL)?	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT KNOW . . . 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DONT KNOW . . . 8
571	For how many days did (NAME) take the (OTHER ANTIMALARIAL)? IF 7 DAYS OR MORE, RECORD 7.	DAYS <input type="checkbox"/> DONT KNOW . . . 8	DAYS <input type="checkbox"/> DONT KNOW . . . 8	DAYS <input type="checkbox"/> DONT KNOW . . . 8
572		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
573	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2003 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE <input type="checkbox"/> NONE <input type="checkbox"/> RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 574) _____ (NAME)		576
574	The last time (NAME FROM 573) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE ... 01 PUT/RINSED INTO TOILET OR LATRINE 02 PUT/RINSED INTO DRAIN OR DITCH 03 THROWN INTO GARBAGE 04 BURIED 05 LEFT IN THE OPEN 06 OTHER _____ 96 (SPECIFY)	
575	CHECK 528(a) AND 528(b), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET <input type="checkbox"/> ANY CHILD RECEIVED FLUID FROM ORS PACKET OR <input type="checkbox"/>		577
576	Have you ever heard of a special product called ORS you can get for the treatment of diarrhea?	YES 1 NO 2	
577	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2005 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE <input type="checkbox"/> NONE <input type="checkbox"/> RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 578) _____ (NAME)		601
578	Now I would like to ask you about liquids or foods (NAME FROM 577) had yesterday during the day or at night. Did (NAME FROM 577) (drink/eat): Plain water? Commercially produced infant formula? Any [BRAND NAME OF COMMERCIALY FORTIFIED BABY FOOD] Fresocrem, Cerelac? Any (other) porridge or gruel?	YES NO DK PLAIN WATER 1 2 8 FORMULA 1 2 8 BABY CEREAL 1 2 8 OTHER PORRIDGE/GRUEL.. 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																																																																																																											
579	<p>Now I would like to ask you about (other) liquids or foods that (NAME FROM 577)/you may have had yesterday during the day or at night. I am interested in whether your child/you had the item even if it was combined with other foods.</p> <p>Did (NAME FROM 577)/you drink (eat):</p> <p>a) Milk such as tinned, powdered, or fresh animal milk?</p> <p>b) Tea or coffee?</p> <p>c) Any other liquids?</p> <p>d) Bread, rice, noodles, or other foods made from grains?</p> <p>e) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?</p> <p>f) White potatoes, white yams, manioc, cassava, or any other foods made from roots?</p> <p>g) Any dark green, leafy vegetables?</p> <p>h) Ripe mangoes, papayas or [INSERT ANY OTHER LOCALLY AVAILABLE VITAMIN A-RICH FRUITS]?</p> <p>i) Any other fruits or vegetables?</p> <p>j) Liver, kidney, heart or other organ meats?</p> <p>k) Any meat, such as beef, pork, lamb, goat, chicken, or duck?</p> <p>l) Eggs?</p> <p>m) Fresh or dried fish or shellfish?</p> <p>n) Any foods made from beans, peas, lentils, or nuts?</p> <p>o) Cheese, yogurt or other milk products?</p> <p>p) Any oil, fats, or butter, or foods made with any of these?</p> <p>q) Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?</p> <p>r) Any other solid or semi-solid food?</p>	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">CHILD</th> <th colspan="3">MOTHER</th> </tr> <tr> <th>YES</th> <th>NO</th> <th>DK</th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>b</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>c</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>d</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>e</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>f</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>g</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>h</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>i</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>j</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>k</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>l</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>m</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>n</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>o</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>p</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>q</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>r</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		CHILD			MOTHER			YES	NO	DK	YES	NO	DK	a	1	2	8	1	2	8	b	1	2	8	1	2	8	c	1	2	8	1	2	8	d	1	2	8	1	2	8	e	1	2	8	1	2	8	f	1	2	8	1	2	8	g	1	2	8	1	2	8	h	1	2	8	1	2	8	i	1	2	8	1	2	8	j	1	2	8	1	2	8	k	1	2	8	1	2	8	l	1	2	8	1	2	8	m	1	2	8	1	2	8	n	1	2	8	1	2	8	o	1	2	8	1	2	8	p	1	2	8	1	2	8	q	1	2	8	1	2	8	r	1	2	8	1	2	8	
	CHILD			MOTHER																																																																																																																																										
	YES	NO	DK	YES	NO	DK																																																																																																																																								
a	1	2	8	1	2	8																																																																																																																																								
b	1	2	8	1	2	8																																																																																																																																								
c	1	2	8	1	2	8																																																																																																																																								
d	1	2	8	1	2	8																																																																																																																																								
e	1	2	8	1	2	8																																																																																																																																								
f	1	2	8	1	2	8																																																																																																																																								
g	1	2	8	1	2	8																																																																																																																																								
h	1	2	8	1	2	8																																																																																																																																								
i	1	2	8	1	2	8																																																																																																																																								
j	1	2	8	1	2	8																																																																																																																																								
k	1	2	8	1	2	8																																																																																																																																								
l	1	2	8	1	2	8																																																																																																																																								
m	1	2	8	1	2	8																																																																																																																																								
n	1	2	8	1	2	8																																																																																																																																								
o	1	2	8	1	2	8																																																																																																																																								
p	1	2	8	1	2	8																																																																																																																																								
q	1	2	8	1	2	8																																																																																																																																								
r	1	2	8	1	2	8																																																																																																																																								
580	<p>CHECK 578 (LAST 2 CATEGORIES: BABY CEREAL OR OTHER PORRIDGE/GRUEL) AND 579 (CATEGORIES d THROUGH r FOR CHILD):</p> <p>AT LEAST ONE "YES" <input type="checkbox"/></p> <p>NOT A SINGLE "YES" <input type="checkbox"/> → 601</p>																																																																																																																																													
581	<p>How many times did (NAME FROM 577) eat solid, semisolid, or soft foods yesterday during the day or at night?</p> <p>IF 7 OR MORE TIMES, RECORD '7'.</p>	<p>NUMBER OF TIMES <input type="checkbox"/></p> <p>DON'T KNOW 8</p>																																																																																																																																												

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED 1 YES, LIVING WITH A MAN 2 NO, NOT IN UNION 3	<input type="checkbox"/> → 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED 1 YES, LIVED WITH A MAN 2 NO 3	<input type="checkbox"/> → 617
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED 1 DIVORCED 2 SEPARATED 3	<input type="checkbox"/> → 609
604	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER 1 STAYING ELSEWHERE 2	
605	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. <input type="text"/> <input type="text"/>	
606	Does your husband/partner have other wives or does he live with other women as if married?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 609
607	Including yourself, in total, how many wives or partners does your husband live with now as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS <input type="text"/> <input type="text"/> DON'T KNOW 98	
608	Are you the first, second, ... wife?	RANK <input type="text"/> <input type="text"/>	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE 1 MORE THAN ONCE 2	<input type="checkbox"/> → 611

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
610	CHECK 603: IS RESPONDENT CURRENTLY WIDOWED? CURRENTLY WIDOWED <input type="checkbox"/> NOT ASKED OR CURRENTLY DIVORCED/SEPARATED <input type="checkbox"/>		613 615
611	CHECK 603: IS RESPONDENT CURRENTLY WIDOWED? NOT ASKED <input type="checkbox"/> CURRENTLY WIDOWED <input type="checkbox"/> CURRENTLY DIVORCED/SEPARATED <input type="checkbox"/>		613 615
612	How did your previous marriage or union end?	DEATH/WIDOWHOOD 1 DIVORCE 2 SEPARATION 3	<input type="checkbox"/> → 615
613	To whom did most of your late husband's property go to?	RESPONDENT 1 OTHER WIFE 2 SPOUSE'S CHILDREN 3 SPOUSE'S FAMILY 4 OTHER 6 (SPECIFY) NO PROPERTY 7	→ 615
614	Did you receive any of your late husband's assets or valuables?	YES 1 NO 2	
615	CHECK 609: MARRIED/LIVED WITH A MAN ONLY ONCE <input type="checkbox"/> In what month and year did you start living with your husband/partner? MARRIED/LIVED WITH A MAN MORE THAN ONCE <input type="checkbox"/> Now I would like to ask about when you started living with your first husband/partner. In what month and year was that?	MONTH <input type="text"/> <input type="text"/> DON'T KNOW MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR 9998	→ 617
616	How old were you when you first started living with him?	AGE <input type="text"/> <input type="text"/>	
617	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
618	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE 00 AGE IN YEARS <input type="text"/> <input type="text"/> FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 621 → 621
619	CHECK 107: AGE 15-24 <input type="checkbox"/> AGE 25-49 <input type="checkbox"/>		→ 641
620	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES 1 NO 2 DON'T KNOW/UNSURE 8	→ 641

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
626A	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question. → SKIP TO 628			
627	When was the last time you had sexual intercourse with this person?		DAYS . 1 <input type="text"/> <input type="text"/> WEEKS 2 <input type="text"/> <input type="text"/> MONTHS 3 <input type="text"/> <input type="text"/>	DAYS . 1 <input type="text"/> <input type="text"/> WEEKS 2 <input type="text"/> <input type="text"/> MONTHS 3 <input type="text"/> <input type="text"/>
628	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES 1 NO 2 (SKIP TO 630) ←	YES 1 NO 2 (SKIP TO 630) ←	YES 1 NO 2 (SKIP TO 630) ←
629	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2
630	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND 1 (SKIP TO 636) ← LIVE-IN PARTNER 2 BOYFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE 5 OTHER 6 (SPECIFY)	HUSBAND 1 (SKIP TO 636) ← LIVE-IN PARTNER 2 BOYFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE 5 OTHER 6 (SPECIFY)	HUSBAND 1 (SKIP TO 636) ← LIVE-IN PARTNER 2 BOYFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE 5 OTHER 6 (SPECIFY)
631	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	DAYS . 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>	DAYS . 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/>
632	CHECK 107:	AGE 15-24 <input type="checkbox"/> AGE 25-49 <input type="checkbox"/> (SKIP TO 636) ←	AGE 15-24 <input type="checkbox"/> AGE 25-49 <input type="checkbox"/> (SKIP TO 636) ←	AGE 15-24 <input type="checkbox"/> AGE 25-49 <input type="checkbox"/> (SKIP TO 636) ←
633	How old is this person?	AGE OF PARTNER <input type="text"/> <input type="text"/> (SKIP TO 636) ← DON'T KNOW 98	AGE OF PARTNER <input type="text"/> <input type="text"/> (SKIP TO 636) ← DON'T KNOW 98	AGE OF PARTNER <input type="text"/> <input type="text"/> (SKIP TO 636) ← DON'T KNOW 98
634	Is this person older than you, younger than you, or about the same age?	OLDER 1 YOUNGER 2 SAME AGE 3 DON'T KNOW ... 8 (SKIP TO 636) ←	OLDER 1 YOUNGER 2 SAME AGE 3 DON'T KNOW ... 8 (SKIP TO 636) ←	OLDER 1 YOUNGER 2 SAME AGE 3 DON'T KNOW ... 8 (SKIP TO 636) ←
635	Would you say this person is ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH ... 3	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH ... 3	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH ... 3

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
636	The last time you had sexual intercourse with this person, did you or this person drink alcohol?	YES 1 NO 2 (SKIP TO 638) ←	YES 1 NO 2 (SKIP TO 638) ←	YES 1 NO 2 (SKIP TO 639) ←
637	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY ... 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY ... 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY ... 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
638	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES 1 (GO BACK TO 627 ← IN NEXT COLUMN) NO 2 (SKIP TO 640) ←	YES 1 (GO BACK TO 627 ← IN NEXT COLUMN) NO 2 (SKIP TO 640) ←	
639	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS ... <input type="text"/> <input type="text"/> DONT KNOW ... 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
640	<p>In total, with how many different people have you had sexual intercourse in your lifetime?</p> <p>IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.</p> <p>IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'</p>	<p>NUMBER OF PARTNERS IN LIFETIME <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 98</p>	
641	<p>Do you know of a place where a person can get condoms?</p>	<p>YES 1</p> <p>NO 2</p>	→ 644
642	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIENDS/RELATIVES O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
643	<p>If you wanted to, could you yourself get a condom?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW/UNSURE 8</p>	
643A	<p>Where would you like to buy a condom?</p> <p>Any other place?</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIENDS/RELATIVES O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
644	Do you know of a place where a person can get female condoms?	YES 1 NO 2	→ 701
645	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL A GOVT. HEALTH CENTER B FAMILY PLANNING CLINIC C MOBILE CLINIC D FIELDWORKER E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC G PHARMACY H PRIVATE DOCTOR I MOBILE CLINIC J FIELDWORKER K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER SOURCE SHOP M CHURCH N FRIENDS/RELATIVES O OTHER _____ X (SPECIFY)	
646	If you wanted to, could you yourself get a female condom?	YES 1 NO 2 DON'T KNOW/UNSURE 8	
646A	Where would you like to buy a female condom? Any other place?	PUBLIC SECTOR GOVERNMENT HOSPITAL A GOVT. HEALTH CENTER B FAMILY PLANNING CLINIC C MOBILE CLINIC D FIELDWORKER E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC G PHARMACY H PRIVATE DOCTOR I MOBILE CLINIC J FIELDWORKER K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER SOURCE SHOP M CHURCH N FRIENDS/RELATIVES O OTHER _____ X (SPECIFY)	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 311/311A: NEITHER STERILIZED <input type="checkbox"/> HE OR SHE STERILIZED <input type="checkbox"/>		→ 713
702	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD 1 NO MORE/NONE 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW AND PREGNANT 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT OR UNSURE 5	→ 704 → 713 → 709 → 708
703	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How long would you like to wait from now before the birth of (a/another) child? After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS 1 YEARS 2 SOON/NOW 993 SAYS SHE CAN'T GET PREGNANT AFTER MARRIAGE 994 OTHER 996 (SPECIFY) DON'T KNOW 998	→ 708 → 713 → 708
704	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		→ 709
705	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED <input type="checkbox"/> NOT CURRENTLY USING <input type="checkbox"/> CURRENTLY USING <input type="checkbox"/>		→ 713
706	CHECK 703: NOT ASKED <input type="checkbox"/> 24 OR MORE MONTHS OR 02 OR MORE YEARS <input type="checkbox"/> 00-23 MONTHS OR 00-01 YEAR <input type="checkbox"/>		→ 709

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
707	<p>CHECK 702:</p> <p>WANTS TO HAVE A/ANOTHER CHILD <input type="checkbox"/></p> <p>↓</p> <p>You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy.</p> <p>Can you tell me why you are not using a method?</p> <p>Any other reason?</p> <p>WANTS NO MORE/NONE <input type="checkbox"/></p> <p>↓</p> <p>You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy.</p> <p>Can you tell me why you are not using a method?</p> <p>Any other reason?</p> <p>RECORD ALL REASONS MENTIONED.</p>	<p>NOT MARRIED A</p> <p>FERTILITY-RELATED REASONS</p> <p>NOT HAVING SEX B</p> <p>INFREQUENT SEX C</p> <p>MENOPAUSAL/HYSTERECTOMY . . . D</p> <p>SUBFECUND/INFECUND E</p> <p>POSTPARTUM AMENORRHEIC . . . F</p> <p>BREASTFEEDING G</p> <p>FATALISTIC H</p> <p>OPPOSITION TO USE</p> <p>RESPONDENT OPPOSED I</p> <p>HUSBAND/PARTNER OPPOSED . . . J</p> <p>OTHERS OPPOSED K</p> <p>RELIGIOUS PROHIBITION L</p> <p>LACK OF KNOWLEDGE</p> <p>KNOWS NO METHOD M</p> <p>KNOWS NO SOURCE N</p> <p>METHOD-RELATED REASONS</p> <p>HEALTH CONCERNS O</p> <p>FEAR OF SIDE EFFECTS P</p> <p>LACK OF ACCESS/TOO FAR Q</p> <p>COSTS TOO MUCH R</p> <p>INCONVENIENT TO USE S</p> <p>INTERFERES WITH BODY'S NORMAL PROCESSES T</p> <p>OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>	
708	<p>CHECK 310: USING A CONTRACEPTIVE METHOD?</p> <p>NOT ASKED <input type="checkbox"/></p> <p>↓</p> <p>NO, NOT CURRENTLY USING <input type="checkbox"/></p> <p>↓</p> <p>YES, CURRENTLY USING <input type="checkbox"/></p>		→ 713
709	<p>Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	→ 711 → 713
710	<p>Which contraceptive method would you prefer to use?</p>	<p>FEMALE STERILIZATION 01</p> <p>MALE STERILIZATION 02</p> <p>PILL 03</p> <p>IUD 04</p> <p>INJECTABLES 05</p> <p>IMPLANTS 06</p> <p>CONDOM 07</p> <p>FEMALE CONDOM 08</p> <p>DIAPHRAGM 09</p> <p>FOAM/JELLY 10</p> <p>LACTATIONAL AMEN. METHOD 11</p> <p>RHYTHM METHOD 12</p> <p>WITHDRAWAL 13</p> <p>OTHER _____ 96 (SPECIFY)</p> <p>UNSURE 98</p>	→ 713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED/NOT IN UNION . . .11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . 22 MENOPAUSAL/HYSTERECTOMY . . . 23 SUBFECUND/INFECUND 24 WANTS AS MANY CHILDREN AS POSSIBLE 26 OPPOSITION TO USE RESPONDENT OPPOSED 31 HUSBAND/PARTNER OPPOSED 32 OTHERS OPPOSED 33 RELIGIOUS PROHIBITION 34 LACK OF KNOWLEDGE KNOWS NO METHOD 41 KNOWS NO SOURCE 42 METHOD-RELATED REASONS HEALTH CONCERNS 51 FEAR OF SIDE EFFECTS 52 LACK OF ACCESS/TOO FAR 53 COSTS TOO MUCH 54 INCONVENIENT TO USE 55 INTERFERES WITH BODY'S NORMAL PROCESSES 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 713
712	Would you ever use a contraceptive method if you were married?	YES 1 NO 2 DON'T KNOW 8	
713	CHECK 216: HAS LIVING CHILDREN <input type="checkbox"/> NO LIVING CHILDREN <input type="checkbox"/> If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE 00 NUMBER <input type="text"/> <input type="text"/> OTHER _____ 96 (SPECIFY)	→ 715 → 715
714	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> OTHER _____ 96 (SPECIFY)	
715	In the last six months have you: Heard about family planning on the radio? Seen about family planning on the television? Read about family planning in a newspaper or magazine? Heard about family planning from a health worker? Seen about family planning on posters/billboards?	YES NO RADIO 1 2 TELEVISION 1 2 NEWSPAPER OR MAGAZINE 1 2 HEALTH WORKER 1 2 POSTERS/ BILLBORDS 1 2	
716	In the last 12 months have you seen any of the following Family Planng messages on posters/billboards: Boku Born, Boku Losis Have self control, value your body, respect yourself, avoid teenage pregnancy Space the birth of your children Children by choice, not by chance	YES NO BOKU BORN BOKU LOSIS 1 2 TEENAGE PREGNANCY 1 2 SPACE THE BIRTH 1 2 CHILDREN BY CHOICE 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717	CHECK 601: YES, CURRENTLY MARRIED <input type="checkbox"/> YES, LIVING WITH A MAN <input type="checkbox"/> NO, NOT IN UNION <input type="checkbox"/>	→ 801	
718	CHECK 311/311A: CODE B, G, OR M CIRCLED <input type="checkbox"/> NO CODE CIRCLED <input type="checkbox"/> OTHER <input type="checkbox"/>	→ 720 → 722	
719	Does your husband/partner know that you are using a method of family planning?	YES 1 NO 2 DON'T KNOW 8	
719A	Do you discuss family planning with your husband/partner?	YES 1 NO 2 DON'T KNOW 8	
720	Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT 1 MAINLY HUSBAND/PARTNER 2 JOINT DECISION 3 OTHER _____ 6 (SPECIFY)	
721	CHECK 311/311A: NEITHER STERILIZED <input type="checkbox"/> HE OR SHE STERILIZED <input type="checkbox"/>	→ 801	
722	Does your husband/partner want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER 1 MORE CHILDREN 2 FEWER CHILDREN 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	<p>CHECK 601 AND 602:</p> <p>CURRENTLY MARRIED/ LIVING WITH A MAN <input type="checkbox"/></p> <p>FORMERLY MARRIED/ LIVED WITH A MAN <input type="checkbox"/></p> <p>NEVER MARRIED AND NEVER LIVED WITH A MAN <input type="checkbox"/></p>		<p>→ 803</p> <p>→ 807</p>
802	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS <input type="text"/>	
803	Did your (last) husband/partner ever attend school?	<p>YES 1</p> <p>NO 2</p>	→ 806
804	What was the highest level of school he attended: primary, junior secondary, senior secondary, vocational, commercial, nursing, technical, teaching or higher?	<p>PRIMARY 1</p> <p>JUNIOR SECONDARY 2</p> <p>SENIOR SECONDARY 3</p> <p>VOCATIONAL/COMMERCIAL/NURSING TECHNICAL/TEACHING 4</p> <p>HIGHER 5</p> <p>DON'T KNOW 8</p>	→ 806
805	What was the highest (grade/form/year) he completed at that level?	<p>GRADE <input type="text"/></p> <p>DON'T KNOW 98</p>	
806	<p>CHECK 801:</p> <p>CURRENTLY MARRIED/ LIVING WITH A MAN <input type="checkbox"/></p> <p>FORMERLY MARRIED/ LIVED WITH A MAN <input type="checkbox"/></p> <p>What is your husband's/partner's occupation? That is, what kind of work does he mainly do?</p> <p>What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?</p>	<p>_____ <input type="text"/></p> <p>_____</p> <p>_____</p>	
807	Aside from your own housework, have you done any work in the last seven days?	<p>YES 1</p> <p>NO 2</p>	→ 811
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	<p>YES 1</p> <p>NO 2</p>	→ 811
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	<p>YES 1</p> <p>NO 2</p>	→ 811
810	Have you done any work in the last 12 months?	<p>YES 1</p> <p>NO 2</p>	→ 818
811	What is your occupation, that is, what kind of work do you mainly do?	<p>_____ <input type="text"/></p> <p>_____</p> <p>_____</p>	
812	<p>CHECK 811:</p> <p>WORKS IN AGRICULTURE <input type="checkbox"/></p> <p>DOES NOT WORK IN AGRICULTURE <input type="checkbox"/></p>		→ 814
813	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	<p>OWN LAND 1</p> <p>FAMILY LAND 2</p> <p>RENTED LAND 3</p> <p>SOMEONE ELSE'S LAND 4</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
814	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER 1 FOR SOMEONE ELSE 2 SELF-EMPLOYED 3	
815	Do you usually work at home or away from home?	HOME 1 AWAY 2	
816	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR 1 SEASONALLY/PART OF THE YEAR . . . 2 ONCE IN A WHILE 3	
817	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY 1 CASH AND KIND 2 IN KIND ONLY 3 NOT PAID 4	
818	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN <input type="checkbox"/> NOT IN UNION <input type="checkbox"/>		→ 827
819	CHECK 817: CODE 1 OR 2 CIRCLED <input type="checkbox"/> OTHER <input type="checkbox"/>		→ 822
820	Who usually decides how the money you earn will be used: mainly you, mainly your husband/partner, or you and your husband/partner jointly?	RESPONDENT 1 HUSBAND/PARTNER 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER _____ 6 (SPECIFY)	
821	Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?	MORE THAN HIM 1 LESS THAN HIM 2 ABOUT THE SAME 3 HUSBAND/PARTNER DOESN'T BRING IN ANY MONEY 4 DON'T KNOW 8	→ 823
822	Who usually decides how your husband's/partner's earnings will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT 1 HUSBAND/PARTNER 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 HUSBAND/PARTNER HAS NO EARNINGS 4 OTHER _____ 6 (SPECIFY)	
823	Who usually makes decisions about health care for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	RESPONDENT = 1 HUSBAND/PARTNER = 2 RESPONDENT & HUSBAND/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 OTHER = 6 1 2 3 4 6	
824	Who usually makes decisions about making major household purchases?	1 2 3 4 6	
825	Who usually makes decisions about making purchases for daily household needs?	1 2 3 4 6	
826	Who usually makes decisions about visits to your family or relatives?	1 2 3 4 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																				
827	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	<table border="0"> <thead> <tr> <th></th> <th>PRES./ LISTEN.</th> <th>PRES./ NOT LISTEN.</th> <th>NOT PRES.</th> </tr> </thead> <tbody> <tr> <td>CHILDREN < 10</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>HUSBAND</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>OTHER MALES</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>OTHER FEMALES</td> <td>1</td> <td>2</td> <td>3</td> </tr> </tbody> </table>		PRES./ LISTEN.	PRES./ NOT LISTEN.	NOT PRES.	CHILDREN < 10	1	2	3	HUSBAND	1	2	3	OTHER MALES	1	2	3	OTHER FEMALES	1	2	3																	
	PRES./ LISTEN.	PRES./ NOT LISTEN.	NOT PRES.																																				
CHILDREN < 10	1	2	3																																				
HUSBAND	1	2	3																																				
OTHER MALES	1	2	3																																				
OTHER FEMALES	1	2	3																																				
828	<p>Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:</p> <p>If she goes out without telling him?</p> <p>If she neglects the children?</p> <p>If she argues with him?</p> <p>If she refuses to have sex with him?</p> <p>If she burns the food?</p> <p>If she refuses to cook?</p> <p>If he suspects her of being unfaithful?</p> <p>If she refuses to clean the house?</p>	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>GOES OUT</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>NEGL. CHILDREN</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>ARGUES</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>REFUSES SEX</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BURNS FOOD</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>REFUSES TO COOK</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>UNFAITHFUL</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>DOES NOT CLEAN</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		YES	NO	DK	GOES OUT	1	2	8	NEGL. CHILDREN	1	2	8	ARGUES	1	2	8	REFUSES SEX	1	2	8	BURNS FOOD	1	2	8	REFUSES TO COOK	1	2	8	UNFAITHFUL	1	2	8	DOES NOT CLEAN	1	2	8	
	YES	NO	DK																																				
GOES OUT	1	2	8																																				
NEGL. CHILDREN	1	2	8																																				
ARGUES	1	2	8																																				
REFUSES SEX	1	2	8																																				
BURNS FOOD	1	2	8																																				
REFUSES TO COOK	1	2	8																																				
UNFAITHFUL	1	2	8																																				
DOES NOT CLEAN	1	2	8																																				

SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES 1 NO 2	→ 942																
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES 1 NO 2 DON'T KNOW 8																	
903	Can people get the AIDS virus from mosquito bites?	YES 1 NO 2 DON'T KNOW 8																	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES 1 NO 2 DON'T KNOW 8																	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES 1 NO 2 DON'T KNOW 8																	
906	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES 1 NO 2 DON'T KNOW 8																	
907	Can people get the AIDS virus because of witchcraft/witch gun or other supernatural means?	YES 1 NO 2 DON'T KNOW 8																	
908	Is it possible for a healthy-looking person to have the AIDS virus?	YES 1 NO 2 DON'T KNOW 8																	
909	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DK</td> </tr> <tr> <td>DURING PREG.</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>DURING DELIVERY</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BREASTFEEDING</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	DURING PREG.	1	2	8	DURING DELIVERY	1	2	8	BREASTFEEDING	1	2	8	
	YES	NO	DK																
DURING PREG.	1	2	8																
DURING DELIVERY	1	2	8																
BREASTFEEDING	1	2	8																
910	CHECK 909: AT LEAST <input type="checkbox"/> OTHER <input type="checkbox"/> ONE 'YES' ↓		→ 912																
911	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES 1 NO 2 DON'T KNOW 8																	
912	Have you heard about special antiretroviral drugs (ARV) that people infected with the AIDS virus can get from a doctor or a nurse to help them live longer?	YES 1 NO 2 DON'T KNOW 8																	
913	CHECK 208 AND 215: LAST BIRTH SINCE JANUARY 2005 <input type="checkbox"/> LAST BIRTH BEFORE JANUARY 2005 <input type="checkbox"/>	NO BIRTHS <input type="checkbox"/>	→ 922 → 922																
914	CHECK 407 FOR LAST BIRTH: HAD ANTENATAL CARE <input type="checkbox"/> NO ANTENATAL CARE <input type="checkbox"/>		→ 922																
914A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.																		
915	During any of the antenatal visits for your last birth, did anyone talk to you about: Babies getting the AIDS virus from their mother? Things that you can do to prevent getting the AIDS virus? Getting tested for the AIDS virus?	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DK</td> </tr> <tr> <td>AIDS FROM MOTHER</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>THINGS TO DO</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>TESTED FOR AIDS</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	AIDS FROM MOTHER	1	2	8	THINGS TO DO	1	2	8	TESTED FOR AIDS	1	2	8	
	YES	NO	DK																
AIDS FROM MOTHER	1	2	8																
THINGS TO DO	1	2	8																
TESTED FOR AIDS	1	2	8																
916	Were you offered a test for the AIDS virus as part of your antenatal care?	YES 1 NO 2																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
917	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES 1 NO 2	→ 922
918	I don't want to know the results, but did you get the results of the test?	YES 1 NO 2	
919	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL 11 GOVT. HEALTH CENTER 12 STAND-ALONE VCT CENTER ... 13 FAMILY PLANNING CLINIC 14 MOBILE CLINIC 15 FIELDWORKER 16 OTHER PUBLIC _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR 21 STAND-ALONE VCT CENTER ... 22 PHARMACY 23 MOBILE CLINIC 24 FIELDWORKER 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
920	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES 1 NO 2	→ 923
921	When was the last time you were tested for the AIDS virus?	LESS THAN 12 MONTHS AGO 1 12 - 23 MONTHS AGO 2 2 OR MORE YEARS AGO 3	→ 929
922	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES 1 NO 2	→ 927
923	When was the last time you were tested?	LESS THAN 12 MONTHS AGO 1 12 - 23 MONTHS AGO 2 2 OR MORE YEARS AGO 3	
924	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST 1 OFFERED AND ACCEPTED 2 REQUIRED 3	
925	I don't want to know the results, but did you get the results of the test?	YES 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
926	<p>Where was the test done?</p> <p>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL 11</p> <p>GOVT. HEALTH CENTER 12</p> <p>STAND-ALONE VCT CENTER .. 13</p> <p>FAMILY PLANNING CLINIC 14</p> <p>MOBILE CLINIC 15</p> <p>FIELDWORKER 16</p> <p>OTHER PUBLIC _____ 17</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC/</p> <p>PRIVATE DOCTOR 21</p> <p>STAND-ALONE VCT CENTER .. 22</p> <p>PHARMACY 23</p> <p>MOBILE CLINIC 24</p> <p>FIELDWORKER 25</p> <p>OTHER PRIVATE</p> <p>MEDICAL _____ 26</p> <p>(SPECIFY)</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	<p>→ 929</p>
927	<p>Do you know of a place where people can go to get tested for the AIDS virus?</p>	<p>YES 1</p> <p>NO 2</p>	<p>→ 929</p>
928	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>STAND-ALONE VCT CENTER ... C</p> <p>FAMILY PLANNING CLINIC D</p> <p>MOBILE CLINIC E</p> <p>FIELDWORKER F</p> <p>OTHER PUBLIC _____ G</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC/</p> <p>PRIVATE DOCTOR H</p> <p>STAND-ALONE VCT CENTER ... I</p> <p>PHARMACY J</p> <p>MOBILE CLINIC K</p> <p>FIELDWORKER L</p> <p>OTHER PRIVATE</p> <p>MEDICAL _____ M</p> <p>(SPECIFY)</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
929	<p>Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	
930	<p>If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?</p>	<p>YES, REMAIN A SECRET 1</p> <p>NO 2</p> <p>DK/NOT SURE/DEPENDS 8</p>	
931	<p>If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?</p>	<p>YES 1</p> <p>NO 2</p> <p>DK/NOT SURE/DEPENDS 8</p>	
932	<p>In your opinion, if a teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?</p>	<p>SHOULD BE ALLOWED 1</p> <p>SHOULD NOT BE ALLOWED 2</p> <p>DK/NOT SURE/DEPENDS 8</p>	
933	<p>Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have the AIDS virus?</p>	<p>YES 1</p> <p>NO 2</p> <p>DK ANYONE WITH AIDS 3</p>	<p>→ 938</p>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
934	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES 1 NO 2	
935	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES 1 NO 2	
936	CHECK 933, 934, AND 935: NOT A SINGLE <input type="checkbox"/> YES' ↓	AT LEAST ONE 'YES' <input type="checkbox"/> →	938
937	Do you personally know someone who has or is suspected to have the AIDS virus?	YES 1 NO 2	
938	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE 1 DISAGREE 2 DON'T KNOW/NO OPINION 8	
939	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE 1 DISAGREE 2 DON'T KNOW/NO OPINION 8	
940	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES 1 NO 2 DK/NOT SURE/DEPENDS 8	
941	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS?	YES 1 NO 2 DK/NOT SURE/DEPENDS 8	
942	CHECK 901: HEARD ABOUT AIDS <input type="checkbox"/> ↓ Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS <input type="checkbox"/> ↓ Have you heard about infections that can be transmitted through sexual contact?	YES 1 NO 2	
943	CHECK 618: HAS HAD SEXUAL INTERCOURSE <input type="checkbox"/> ↓ HAS NOT HAD SEXUAL INTERCOURSE <input type="checkbox"/> →		951
944	CHECK 942: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES <input type="checkbox"/> ↓ NO <input type="checkbox"/> →		946
945	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES 1 NO 2 DON'T KNOW 8	
946	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES 1 NO 2 DON'T KNOW 8	
947	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES 1 NO 2 DON'T KNOW 8	
948	CHECK 945, 946, AND 947: HAS HAD AN INFECTION (ANY 'YES') <input type="checkbox"/> ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW <input type="checkbox"/> →		951

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
949	The last time you had (PROBLEM FROM 945/946/947), did you seek any kind of advice or treatment?	YES 1 NO 2	→ 951
950	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL A GOVT. HEALTH CENTER B STAND-ALONE VCT CENTER ... C FAMILY PLANNING CLINIC D MOBILE CLINIC E FIELDWORKER F OTHER PUBLIC _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR H STAND-ALONE VCT CENTER ... I PHARMACY J MOBILE CLINIC K FIELDWORKER L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER SOURCE SHOP N OTHER _____ X (SPECIFY)	
951	Husbands and wives do not always agree on everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES 1 NO 2 DON'T KNOW 8	
952	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES 1 NO 2 DON'T KNOW 8	
953	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES 1 NO 2 DON'T KNOW 8	
954	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with women other than his wives?	YES 1 NO 2 DON'T KNOW 8	
955	CHECK 601: CURRENTLY MARRIED/ <input type="checkbox"/> LIVING WITH A MAN <input type="checkbox"/> NOT IN UNION <input type="checkbox"/>		→ 1001
956	Can you say no to your husband/partner if you do not want to have sexual intercourse?	YES 1 NO 2 DEPENDS/NOT SURE 8	
957	Could you ask your husband/partner to use a condom if you wanted him to?	YES 1 NO 2 DEPENDS/NOT SURE 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1010	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES <input type="text"/> <input type="text"/>	
1011	Do you currently smoke or use any other type of tobacco?	YES 1 NO 2	→ 1013
1012	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE A CHEWING TOBACCO B SNUFF C OTHER _____ X (SPECIFY)	
1013	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?		
	Getting permission to go?	PERMISSION TO GO ... 1 2	
	Getting money needed for treatment?	GETTING MONEY 1 2	
	The distance to the health facility?	DISTANCE 1 2	
	Having to take transport?	TAKING TRANSPORT ... 1 2	
	Not wanting to go alone?	GO ALONE 1 2	
	Concern that there may not be a female health provider?	NO FEMALE PROV. ... 1 2	
	Concern that there may not be any health provider?	NO PROVIDER ... 1 2	
	Concern that there may be no drugs available?	NO DRUGS ... 1 2	
1014	Are you covered by any health insurance?	YES 1 NO 2	→ 1016
1015	What type of health insurance? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE A HEALTH INSURANCE THROUGH EMPLOYER B SOCIAL SECURITY C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. D OTHER _____ X (SPECIFY)	
1016	CHECK 217: (YOUNGEST) CHILD <input type="checkbox"/> IS AGE 0-17 ↓ OTHER <input type="checkbox"/>		→ 1018
1017	Now I would like to ask you about your own child(ren) who (is/are) under the age of 18. Have you made arrangements for someone to care for (him/her/them) in the event that you fall sick or are unable to care for (him/her/them)?	YES 1 NO 2 UNSURE 8	
1018	(Besides your own child/children), are you the primary caregiver for any children under the age of 18?	YES 1 NO 2	→ 1100
1019	Have you made arrangements for someone to care for (this child/these children) in the event that you fall sick or are unable to care for (him/her/them)?	YES 1 NO 2 UNSURE 8	

SECTION 11. FEMALE GENITAL CUTTING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Have you ever heard of the Bondo/Sande/other secret societies/female circumcision?	YES 1 NO 2	→ 1103
1102	In some countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES 1 NO 2	→ 1201
1103	Have you yourself ever been initiated/circumcised?	YES 1 NO 2	→ 1109
1104	Now I would like to ask you what was done to you at that time. Was any flesh removed from the genital area?	YES 1 NO 2 DON'T KNOW 8	→ 1106
1105	Was the genital area just nicked without removing any flesh?	YES 1 NO 2 DON'T KNOW 8	
1106	Was your genital area sewn closed?	YES 1 NO 2 DON'T KNOW 8	
1107	How old were you when you were initiated/circumcised? IF THE RESPONDENT DOES NOT KNOW THE EXACT AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/> DURING INFANCY 95 DON'T KNOW 98	
1108	Who performed the initiation/circumcision?	TRADITIONAL TRAD. CIRCUMCISER 11 TRAD. BIRTH ATTENDANT 12 OTHER TRAD. _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR 21 TRAINED NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
1109	CHECK 214 AND 216: HAS ONE LIVING DAUGHTER <input type="checkbox"/> HAS MORE THAN ONE LIVING DAUGHTER <input type="checkbox"/> HAS NO LIVING DAUGHTER <input type="checkbox"/>		→ 1119
1110	CHECK 1109: ONE LIVING DAUGHTER <input type="checkbox"/> MORE THAN ONE LIVING DAUGHTER <input type="checkbox"/> Has your daughter been initiated/circumcised? Have any of your daughters been initiated/circumcised? IF YES: RECORD '01' IF YES: How many? RECORD NUMBER	NUMBER CIRCUMCISED <input type="text"/> <input type="text"/> NO DAUGHTER CIRCUMCISED 95	→ 1118
1111	CHECK 1110: ONE LIVING DAUGHTER <input type="checkbox"/> MORE THAN ONE LIVING DAUGHTER <input type="checkbox"/> What is your daughter's name? Which of your daughters was circumcised most recently? _____ (DAUGHTER'S NAME)	DAUGHTER'S LINE NUMBER FROM Q. 212 <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1112	Now I would like to ask you what was done to (NAME OF THE DAUGHTER FROM Q. 1111) at that time? Was any flesh removed from her genital area?	YES 1 NO 2 DON'T KNOW 8	→ 1114
1113	Was her genital area just nicked without removing any flesh?	YES 1 NO 2 DON'T KNOW 8	
1114	Was her genital area sewn closed?	YES 1 NO 2 DON'T KNOW 8	
1115	How old was (NAME OF THE DAUGHTER FROM Q. 1111) when this occurred? IF THE RESPONDENT DOES NOT KNOW THE AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS . <input type="text"/> <input type="text"/> DURING INFANCY 95 DON'T KNOW 98	
1116	Who performed the initiation/circumcision?	TRADITIONAL TRAD. CIRCUMCISER 11 TRAD. BIRTH ATTENDANT 12 OTHER TRAD. _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR 21 TRAINED NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
1117	Do you have any daughter who is not initiated/circumcised?	YES 1 NO 2 DON'T KNOW 8	→ 1119
1118	Do you intend to have any of your daughters initiated/circumcised in the future?	YES 1 NO 2 DON'T KNOW 8	
1119	What benefits do girls themselves get if they are initiated/circumcised? PROBE: Any other benefits? RECORD ALL MENTIONED.	CLEANLINESS/HYGIENE A SOCIAL ACCEPTANCE B BETTER MARRIAGE PROSPECTS . C PRESERVE VIRGINITY/PREVENT PREMARITAL SEX D MORE SEXUAL PLEASURE FOR THE MAN E RELIGIOUS APPROVAL F OTHER _____ X (SPECIFY) NO BENEFITS Y	
1120	Do you believe that this practice is required by your religion?	YES 1 NO 2 DON'T KNOW 8	
1121	Do you think that this practice should be continued, or should it be stopped?	CONTINUED 1 DISCONTINUED 2 DEPENDS 3 DON'T KNOW 8	

SECTION 12. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1201A	<p>Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother.</p> <p>Did your mother give birth to any children, in addition to you?</p>	<p>YES 1 NO 2</p>	→ 1201H
1201B	How many sons did your mother have who are still living?	<p>SONS LIVING <input type="text"/> <input type="text"/></p>	
1201C	How many sons did your mother have who have died?	<p>SONS DEAD <input type="text"/> <input type="text"/></p>	
1201D	Apart from you, how many daughters did your mother have who are still living?	<p>DAUGHTERS LIVING <input type="text"/> <input type="text"/></p>	
1201E	How many daughters did your mother have who have died?	<p>DAUGHTERS DEAD <input type="text"/> <input type="text"/></p>	
1201F	Did your mother have any other children which you do not know if they are alive or dead?	<p>YES 1 NO 2</p>	→ 1201H
1201G	How many other children did your mother have which you do not know if they are alive or dead?	<p>OTHER CHILDREN <input type="text"/> <input type="text"/></p>	
1201H	SUM ANSWERS TO 1201B,C,D,E, AND G, ADD 1 (THE RESPONDENT) AND ENTER TOTAL.	<p>TOTAL <input type="text"/> <input type="text"/></p>	
1201I	<p>CHECK 1201H:</p> <p>Just to make sure that I have this right: including yourself, your mother gave birth to _____ children in total. Is that correct?</p> <p>YES CORRECT <input type="checkbox"/> NO <input type="checkbox"/> → PROBE AND 1201-A-H AS NECESSARY</p>		
1202	<p>CHECK 1201:</p> <p>TWO OR MORE BIRTHS <input type="checkbox"/> ONLY ONE BIRTH (RESPONDENT ONLY) <input type="checkbox"/></p>		→ 1214
1203	How many of these births did your mother have before you were born?	<p>NUMBER OF PRECEDING BIRTHS <input type="text"/> <input type="text"/></p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					
		(1)	(2)	(3)	(4)	(5)	(6)
1204	What was the name given to your oldest (next oldest) brother or sister?	_____	_____	_____	_____	_____	_____
1205	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1206	Is (NAME) still alive?	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (2)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (3)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (4)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (5)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (6)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (7)
1207	How old is (NAME)?	<input type="text"/> <input type="text"/> GO TO (2)	<input type="text"/> <input type="text"/> GO TO (3)	<input type="text"/> <input type="text"/> GO TO (4)	<input type="text"/> <input type="text"/> GO TO (5)	<input type="text"/> <input type="text"/> GO TO (6)	<input type="text"/> <input type="text"/> GO TO (7)
1208	How many years ago did (NAME) die?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
####	How old was (NAME) when he/she died? IF DON'T KNOW, PROBE: Did (NAME) die before age 12? IF YES, ENTER "95" IF NO, ASK ADDITIONAL QUESTION TO GET AN ESTIMATE, FOR EXAMPLE: Did (NAME) die before or after being married?	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
1210	Was (NAME) pregnant when she died?	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2
1211	Did (NAME) die during childbirth?	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2
1212	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2
1213	How many live born children did (NAME) give birth to during her lifetime?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
IF NO MORE BROTHERS OR SISTERS, GO TO 1214.							

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					
1204	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1205	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1206	Is (NAME) still alive?	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (8)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (9)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (10)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (11)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (12)	YES ... 1 NO ... 2 GO TO 1208 DK ... 8 GO TO (13)
1207	How old is (NAME)?	<input type="text"/> <input type="text"/> GO TO (8)	<input type="text"/> <input type="text"/> GO TO (9)	<input type="text"/> <input type="text"/> GO TO (10)	<input type="text"/> <input type="text"/> GO TO (11)	<input type="text"/> <input type="text"/> GO TO (12)	<input type="text"/> <input type="text"/> GO TO (13)
1208	How many years ago did (NAME) die?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
1209	How old was (NAME) when he/she died? IF DON'T KNOW, PROBE: Did (NAME) die before age 12? IF YES, ENTER "95" IF NO, ASK ADDITIONAL QUESTION TO GET AN ESTIMATE, FOR EXAMPLE: Did (NAME) die before or after being married?	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (8)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
1210	Was (NAME) pregnant when she died?	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2
1211	Did (NAME) die during childbirth?	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2	YES ... 1 GO TO 1213 NO ... 2
1212	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2	YES ... 1 NO ... 2
1213	How many live born children did (NAME) give birth to during her lifetime?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
IF NO MORE BROTHERS OR SISTERS, GO TO 1214.							
1214	RECORD THE TIME.	HOURS <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>					

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:
 ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
 ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

BIRTHS, PREGNANCIES, CONTRACEPTIVE USE **

- B BIRTHS
 - P PREGNANCIES
 - T TERMINATIONS

 - 0 NO METHOD
 - 1 FEMALE STERILIZATION
 - 2 MALE STERILIZATION
 - 3 PILL
 - 4 IUD
 - 5 INJECTABLES
 - 6 IMPLANTS
 - 7 CONDOM
 - 8 FEMALE CONDOM
 - 9 DIAPHRAGM
 - J SPERMICIDES OR FOAM OR JELLY
 - K LACTATIONAL AMENORRHEA METHOD
 - L RHYTHM (CALENDAR) METHOD
 - M WITHDRAWAL
 - X OTHER _____
- (SPECIFY)

12	DEC	01		
11	NOV	02		
10	OCT	03		
09	SEP	04		
2	08	AUG	05	2
0	07	JUL	06	0
0	06	JUN	07	0
8	05	MAY	08	8
*	04	APR	09	*
	03	MAR	10	
	02	FEB	11	
	01	JAN	12	

12	DEC	13		
11	NOV	14		
10	OCT	15		
09	SEP	16		
2	08	AUG	17	2
0	07	JUL	18	0
0	06	JUN	19	0
7	05	MAY	20	7
*	04	APR	21	*
	03	MAR	22	
	02	FEB	23	
	01	JAN	24	

12	DEC	25		
11	NOV	26		
10	OCT	27		
09	SEP	28		
2	08	AUG	29	2
0	07	JUL	30	0
0	06	JUN	31	0
6	05	MAY	32	6
*	04	APR	33	*
	03	MAR	34	
	02	FEB	35	
	01	JAN	36	

12	DEC	37		
11	NOV	38		
10	OCT	39		
09	SEP	40		
2	08	AUG	41	2
0	07	JUL	42	0
0	06	JUN	43	0
5	05	MAY	44	5
*	04	APR	45	*
	03	MAR	46	
	02	FEB	47	
	01	JAN	48	

12	DEC	49		
11	NOV	50		
10	OCT	51		
09	SEP	52		
2	08	AUG	53	2
0	07	JUL	54	0
0	06	JUN	55	0
4	05	MAY	56	4
*	04	APR	57	*
	03	MAR	58	
	02	FEB	59	
	01	JAN	60	

12	DEC	61		
11	NOV	62		
10	OCT	63		
09	SEP	64		
2	08	AUG	65	2
0	07	JUL	66	0
0	06	JUN	67	0
3	05	MAY	68	3
*	04	APR	69	*
	03	MAR	70	
	02	FEB	71	
	01	JAN	72	

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with (STATISTICS SIERRA LEONE). We are conducting a national survey to ask men and women about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 20 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

↓

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE) IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS <input type="text"/> <input type="text"/> ALWAYS 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY 1 TOWN 2 COUNTRYSIDE 3	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS <input type="text"/> <input type="text"/> NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than one month at a time?	YES 1 NO 2	
106	In what month and year were you born?	MONTH <input type="text"/> <input type="text"/> DON'T KNOW MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR 9998	
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
108	Have you ever attended school?	YES 1 NO 2	→ 112
109	What is the highest level of school you attended: primary, junior secondary, senior secondary, vocational, commercial, nursing, technical, teaching or higher?	PRIMARY 1 JUNIOR SECONDARY 2 SENIOR SECONDARY 3 VOCATIONAL/COMMERCIAL/NURSING TECHNICAL/TEACHING 4 HIGHER 5	
110	What is the highest (grade/form/year) you completed at that level?	GRADE <input type="text"/> <input type="text"/>	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME <input type="text"/> <input type="text"/> DAUGHTERS AT HOME <input type="text"/> <input type="text"/>	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE <input type="text"/> <input type="text"/> DAUGHTERS ELSEWHERE <input type="text"/> <input type="text"/>	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD <input type="text"/> <input type="text"/> GIRLS DEAD <input type="text"/> <input type="text"/>	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN <input type="text"/> <input type="text"/>	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD <input type="checkbox"/> → HAS HAD ONLY ONE CHILD <input type="checkbox"/> → HAS NOT HAD ANY CHILDREN <input type="checkbox"/> →		→ 212 → 301
210	Did all of the children you have fathered have the same biological mother?	YES 1 NO 2	→ 212
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN <input type="text"/> <input type="text"/>	
212	How old were you when your (first) child was born?	AGE IN YEARS <input type="text"/> <input type="text"/>	
213	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD <input type="checkbox"/> → NO LIVING CHILDREN <input type="checkbox"/> →		→ 301
214	How many years old is your (youngest) child?	AGE IN YEARS <input type="text"/> <input type="text"/>	
215	CHECK 214: (YOUNGEST) CHILD IS AGE 0-3 YEARS <input type="checkbox"/> → OTHER <input type="checkbox"/> →		→ 301

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
216	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
217	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES 1 NO 2 DON'T KNOW 3	→ 219
218	Were you ever present during any of those antenatal check-ups?	PRESENT 1 NOT PRESENT 2	
219	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY 1 OTHER 2	→ 221
220	What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility?	COST TOO MUCH 01 FACILITY CLOSED 02 TOO FAR/NO TRANSPORTATION 03 DON'T TRUST FACILITY/POOR QUALITY SERVICE 04 NO FEMALE PROVIDER 05 NOT THE FIRST CHILD 06 CHILD'S MOTHER DID NOT THINK IT WAS NECESSARY 07 HE DID NOT THINK IT WAS NECESSARY 08 FAMILY DID NOT THINK IT WAS NECESSARY 09 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
221	When a child has diarrhea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL 1 ABOUT THE SAME 2 LESS THAN USUAL 3 NOTHING TO DRINK 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	<p>Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.</p> <p>Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?</p> <p>CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR METHODS 02, 07, 10, AND 11, ASK 302 IF 301 HAS CODE 1 CIRCLED.</p>		302 Have you ever used (METHOD)?
01	<p>FEMALE STERILIZATION Women can have an operation to avoid having any more children.</p>	<p>YES 1 NO 2</p>	
02	<p>MALE STERILIZATION Men can have an operation to avoid having any more children.</p>	<p>YES 1 NO 2</p>	<p>Have you ever had an operation to avoid having any more children? YES 1 NO 2</p>
03	<p>PILL Women can take a pill every day to avoid becoming pregnant.</p>	<p>YES 1 NO 2</p>	
04	<p>IUD Women can have a loop or coil placed inside them by a doctor or a nurse.</p>	<p>YES 1 NO 2</p>	
05	<p>INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant</p>	<p>YES 1 NO 2</p>	
06	<p>IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.</p>	<p>YES 1 NO 2</p>	
07	<p>CONDOM Men can put a rubber sheath on their penis before sexual intercourse.</p>	<p>YES 1 NO 2</p>	<p>YES 1 NO 2</p>
08	<p>FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.</p>	<p>YES 1 NO 2</p>	
09	<p>LACTATIONAL AMENORRHEA METHOD (LAM) (2)</p>	<p>YES 1 NO 2</p>	
10	<p>RHYTHM(CALENDAR) METHOD Every month that a woman is active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to</p>	<p>YES 1 NO 2</p>	<p>YES 1 NO 2</p>
11	<p>WITHDRAWAL Men can be careful and pull out before climax.</p>	<p>YES 1 NO 2</p>	<p>YES 1 NO 2</p>
12	<p>EMERGENCY CONTRACEPTION As an emergency measure after sexual intercourse, women can take special pills at any time within 5 days to prevent pregnancy.</p>	<p>YES 1 NO 2</p>	
13	<p>SPERMICIDES/FOAM/JELLY Can be inserted into the woman's vagina immediately before sexual intercourse</p>	<p>YES 1 NO 2</p>	
14	<p>Have you heard of any other ways or methods that women or men can use to avoid pregnancy?</p>	<p>YES 1</p> <p>_____</p> <p>(SPECIFY)</p> <p>_____</p> <p>(SPECIFY)</p> <p>NO 2</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	In the last six months have you: Heard about family planning on the radio? Seen about family planning on the television? Read about family planning in a newspaper or magazine? Heard about family planning from a health worker? Seen about family planning on posters/billboards?	YES NO RADIO 1 2 TELEVISION 1 2 NEWSPAPER OR MAGAZINE 1 2 HEALTH WORKER 1 2 POSTERS/ BILLBORDS 1 2	
304	In the last six months, have you discussed the practice of family planning with a health worker or health professional?	YES 1 NO 2	
304A	In the last six months, have you discussed the practice of family planning with your spouse/partner?	YES 1 NO 2	
305	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 307
306	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS 1 DURING HER PERIOD 2 RIGHT AFTER HER PERIOD HAS ENDED 3 HALFWAY BETWEEN TWO PERIODS 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
307	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES 1 NO 2 DEPENDS 3 DON'T KNOW 8	
308	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a) Contraception is women's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous.	DIS- AGREE AGREE DK CONTRACEPTION WOMAN'S BUSINESS . 1 2 8 WOMAN MAY BECOME PROMISCUOUS ... 1 2 8	
309	CHECK 301 (07) KNOWS MALE CONDOM YES <input type="checkbox"/> NO <input type="checkbox"/>		<input type="checkbox"/> → 313
310	Do you know of a place where a person can get condoms?	YES 1 NO 2	<input type="checkbox"/> → 313

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
311	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIENDS/RELATIVES O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
312	<p>If you wanted to, could you yourself get a condom?</p>	<p>YES 1</p> <p>NO 2</p>	
312A	<p>Where would you like to buy a condom?</p> <p>Any other place?</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIENDS/RELATIVES O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
313	<p>CHECK 301 (08) KNOWS FEMALE CONDOM</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>		→ 401
314	<p>Do you know of a place where a person can get female condoms?</p>	<p>YES 1</p> <p>NO 2</p>	→ 401

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
315	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIENDS/RELATIVES O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
316	<p>If you wanted to, could you yourself get a female condom?</p>	<p>YES 1</p> <p>NO 2</p>	
316A	<p>Where would you like to buy a female condom?</p> <p>Any other place?</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>FAMILY PLANNING CLINIC C</p> <p>MOBILE CLINIC D</p> <p>FIELDWORKER E</p> <p>OTHER PUBLIC _____ F</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC G</p> <p>PHARMACY H</p> <p>PRIVATE DOCTOR I</p> <p>MOBILE CLINIC J</p> <p>FIELDWORKER K</p> <p>OTHER PRIVATE MEDICAL _____ L</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP M</p> <p>CHURCH N</p> <p>FRIENDS/RELATIVES O</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP															
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED 1 YES, LIVING WITH A WOMAN 2 NO, NOT IN UNION 3	<input type="checkbox"/> → 404															
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED 1 YES, LIVED WITH A WOMAN 2 NO 3	→ 413															
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED 1 DIVORCED 2 SEPARATED 3	<input type="checkbox"/> → 410															
404	Is your wife/partner living with you now or is she staying elsewhere?	LIVING WITH HIM 1 STAYING ELSEWHERE 2																
405	Do you have more than one wife or woman you live with as if married?	YES 1 NO 2	→ 407															
406	Altogether, how many wives do you have or other partners do you live with as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS ... <input type="text"/>																
407	<p>CHECK 405:</p> <p>ONE WIFE/ PARTNER <input type="checkbox"/></p> <p>Please tell me the name of your wife (the woman you are living with as if married).</p> <p>MORE THAN ONE WIFE/ PARTNER <input type="checkbox"/></p> <p>Please tell me the name of each of your current wives (and/or of each woman you are living with as if married).</p> <p>RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER.</p> <p>IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.</p> <p>ASK 408 FOR EACH PERSON.</p>	<table border="1"> <thead> <tr> <th>NAME</th> <th>LINE NUMBER</th> <th>AGE</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>_____</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>_____</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>_____</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>	NAME	LINE NUMBER	AGE	_____	<input type="text"/>	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	408 How old was (NAME) on her last birthday?
NAME	LINE NUMBER	AGE																
_____	<input type="text"/>	<input type="text"/>																
_____	<input type="text"/>	<input type="text"/>																
_____	<input type="text"/>	<input type="text"/>																
_____	<input type="text"/>	<input type="text"/>																
409	<p>CHECK 407:</p> <p>ONE WIFE/ PARTNER <input type="checkbox"/></p> <p>MORE THAN ONE WIFE/ PARTNER <input type="checkbox"/></p>		→ 411A															
410	Have you been married or lived with a woman only once or more than once?	ONLY ONCE 1 MORE THAN ONCE 2	→ 411A															
411	In what month and year did you start living with your (wife/partner)?	MONTH <input type="text"/>																
411A	Now I would like to ask a question about your first wife/partner. In what month and year did you start living with your first wife/partner?	DON'T KNOW MONTH 98 YEAR <input type="text"/> DON'T KNOW YEAR 9998	→ 413															
412	How old were you when you first started living with her?	AGE <input type="text"/>																

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
413	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
414	Now I would like to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE 00 AGE IN YEARS <input type="text"/> <input type="text"/> FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	→ 417 → 417
415	CHECK 107: AGE <input type="text"/> 15-24 ↓	AGE <input type="text"/> 25-59 →	→ 501
416	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES 1 NO 2 DON'T KNOW/UNSURE 8	→ 501
416A	When do you intend to have your first sexual intercourse?	FIRST OPPORTUNITY 1 AFTER SCHOOL 2 AFTER COLLEGE 3 OTHER _____ (SPECIFY) 6 DON'T KNOW 8	→ 501
417	CHECK 107: AGE <input type="text"/> 15-24 ↓	AGE <input type="text"/> 25-59 →	→ 419
418	The <u>first</u> time you had sexual intercourse, was a condom used?	YES 1 NO 2 DON'T KNOW/DON'T REMEMBER 8	
419	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO 1 <input type="text"/> <input type="text"/> WEEKS AGO 2 <input type="text"/> <input type="text"/> MONTHS AGO 3 <input type="text"/> <input type="text"/> YEARS AGO 4 <input type="text"/> <input type="text"/>	→ 435

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER																																										
420	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question. → SKIP TO 422																																													
421	When was the last time you had sexual intercourse with this person?		DAYS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>															DAYS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>																												
422	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES 1 NO 2 (SKIP TO 424) ←	YES 1 NO 2 (SKIP TO 424) ←	YES 1 NO 2 (SKIP TO 424) ←																																										
423	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2																																										
424	What was your relationship to this (second/third) person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	WIFE 1 (SKIP TO 426) ← LIVE-IN PARTNER 2 GIRLFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE 5 OTHER 6 (SPECIFY)	WIFE 1 (SKIP TO 426) ← LIVE-IN PARTNER 2 GIRLFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE 5 OTHER 6 (SPECIFY)	WIFE 1 (SKIP TO 426) ← LIVE-IN PARTNER 2 GIRLFRIEND NOT LIVING WITH RESPONDENT 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE 5 OTHER 6 (SPECIFY)																																										
425	For how long (have you had/did you have) a sexual relationship with this (second/third) person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEARS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>															DAYS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEARS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>															DAYS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEARS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>														
426	The last time you had sexual intercourse with this (second/third) person, did you or this person drink alcohol?	YES 1 NO 2 (SKIP TO 428) ←	YES 1 NO 2 (SKIP TO 428) ←	YES 1 NO 2 (SKIP TO 429) ←																																										
427	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY ... 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY ... 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY ... 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4																																										
428	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES 1 (GO BACK TO 421 ← IN NEXT COLUMN) NO 2 (SKIP TO 430) ←	YES 1 (GO BACK TO 421 ← IN NEXT COLUMN) NO 2 (SKIP TO 430) ←																																											
429	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS ... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table> DONT KNOW ... 98																																										

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
430	CHECK 424 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE <input type="checkbox"/>	NO PARTNERS ARE PROSTITUTES <input type="checkbox"/>	→ 432
431	CHECK 424 AND 422 (ALL COLUMNS): OTHER <input type="checkbox"/>	CONDOM USED WITH EVERY PROSTITUTE <input type="checkbox"/>	→ 434 → 435
432	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES 1 NO 2	→ 435
433	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES 1 NO 2	→ 435
434	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES 1 NO 2 DK 8	
435	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME <input type="text"/> <input type="text"/> DON'T KNOW 98	
436	CHECK 422, MOST RECENT PARTNER (FIRST COLUMN): CONDOM USED <input type="checkbox"/> NOT ASKED <input type="checkbox"/> NO CONDOM USED <input type="checkbox"/>		→ 442 → 442
437	You told me that a condom was used the last time you had sex. May I see the package of condoms you were using at that time? RECORD NAME OF BRAND IF PACKAGE SEEN.	PACKAGE SEEN 1 ↓ BRAND NAME _____ <input type="text"/> <input type="text"/> (SPECIFY) DOES NOT HAVE/NOT SEEN 2	→ 439
438	Do you know the brand name of the condom used at that time? RECORD NAME OF BRAND	BRAND NAME _____ <input type="text"/> <input type="text"/> (SPECIFY) DON'T KNOW 98	
439	How many condoms did you get the last time?	NUMBER OF CONDOMS <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 998	
440	The last time you obtained the condoms, how much did you pay in total, including the cost of the condom(s) and any consultation you may have had?	COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE 99995 DON'T KNOW 99998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
441	<p>From where did you obtain the condom the last time?</p> <p>PROBE TO IDENTIFY TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL 11</p> <p>GOVT. HEALTH CENTER 12</p> <p>FAMILY PLANNING CLINIC 13</p> <p>MOBILE CLINIC 14</p> <p>FIELDWORKER 15</p> <p>OTHER PUBLIC _____ 16</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC 21</p> <p>PHARMACY 22</p> <p>PRIVATE DOCTOR 23</p> <p>MOBILE CLINIC 24</p> <p>FIELDWORKER 25</p> <p>OTHER PRIVATE MEDICAL _____ 26</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP 31</p> <p>CHURCH 32</p> <p>FRIENDS/RELATIVES 33</p> <p>OTHER _____ 36</p> <p>(SPECIFY)</p>	
442	<p>CHECK 302 (02): RESPONDENT EVER STERILIZED</p> <p>NO <input type="checkbox"/> YES <input type="checkbox"/></p>		<p>→ 501</p>
443	<p>The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>→ 501</p>
444	<p>What method did you or your partner use?</p> <p>PROBE: Did you or your partner use any other method to prevent pregnancy?</p> <p>RECORD ALL MENTIONED.</p>	<p>FEMALE STERILIZATION A</p> <p>PILL B</p> <p>IUD C</p> <p>INJECTABLES D</p> <p>IMPLANTS E</p> <p>FEMALE CONDOM F</p> <p>DIAPHRAGM G</p> <p>FOAM/JELLY H</p> <p>LAM I</p> <p>RHYTHM METHOD J</p> <p>WITHDRAWAL K</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 407: ONE OR MORE WIVES/PARTNERS <input type="checkbox"/>	QUESTION NOT ASKED <input type="checkbox"/>	→ 508
502	CHECK 302: MAN NOT STERILIZED <input type="checkbox"/> MAN STERILIZED <input type="checkbox"/>		→ 508
503	(Is your wife (partner)/Are any of your wives (partners)) currently pregnant?	YES 1 NO 2 DON'T KNOW 8	
504	CHECK 503: NO WIFE/PARTNER PREGNANT OR DON'T KNOW <input type="checkbox"/> WIFE(WIVES)/PARTNER(S) PREGNANT <input type="checkbox"/> Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? Now I have some questions about the future. After the child(ren) you and your (wife(wives)/partner(s)) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD 1 NO MORE/NONE 2 COUPLE INFECUND 3 WIFE (WIVES)/PARTNER(S) STERILIZED 4 UNDECIDED/DON'T KNOW 8	→ 508
505	CHECK 407: ONE WIFE/PARTNER <input type="checkbox"/>	MORE THAN ONE WIFE/PARTNER <input type="checkbox"/>	→ 507
506	CHECK 503: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW <input type="checkbox"/> WIFE/PARTNER PREGNANT <input type="checkbox"/> How long would you like to wait from now before the birth of (a/another) child? After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS 1 <input type="checkbox"/> <input type="checkbox"/> YEARS 2 <input type="checkbox"/> <input type="checkbox"/> SOON/NOW 993 COUPLE INFECUND 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 508
507	How long would you like to wait from now before the birth of (a/another) child?	MONTHS 1 <input type="checkbox"/> <input type="checkbox"/> YEARS 2 <input type="checkbox"/> <input type="checkbox"/> SOON/NOW 993 HE/ALL HIS WIVES/PARTNERS ARE INFECUND 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
508	<p>CHECK 203 AND 205:</p> <p>HAS LIVING CHILDREN <input type="checkbox"/> NO LIVING CHILDREN <input type="checkbox"/></p> <p>If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?</p> <p>If you could choose exactly the number of children to have in your whole life, how many would that be?</p> <p>PROBE FOR A NUMERIC RESPONSE.</p>	<p>NONE 00</p> <p>NUMBER <input type="text"/> <input type="text"/></p> <p>OTHER _____ 96 (SPECIFY)</p>	<p>→ 601</p> <p>→ 601</p>
509	<p>How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?</p>	<p>BOYS GIRLS EITHER</p> <p>NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>OTHER _____ 96 (SPECIFY)</p>	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES 1 NO 2	→ 604
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES 1 NO 2	→ 604
603	Have you done any work in the last 12 months?	YES 1 NO 2	→ 613
604	What is your occupation, that is, what kind of work do you mainly do?	_____ <input type="checkbox"/> _____ _____	
605	CHECK 604: WORKS IN AGRICULTURE <input type="checkbox"/> DOES NOT WORK IN AGRICULTURE <input type="checkbox"/>		→ 607
606	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND 1 FAMILY LAND 2 RENTED LAND 3 SOMEONE ELSE'S LAND 4	
607	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER 1 FOR SOMEONE ELSE 2 SELF-EMPLOYED 3	
608	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR 1 SEASONALLY/PART OF THE YEAR 2 ONCE IN A WHILE 3	
609	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY 1 CASH AND KIND 2 IN KIND ONLY 3 NOT PAID 4	
610	CHECK 407: ONE OR MORE WIVES/PARTNERS <input type="checkbox"/> QUESTION NOT ASKED <input type="checkbox"/>		→ 613
611	CHECK 609: CODE 1 OR 2 CIRCLED <input type="checkbox"/> OTHER <input type="checkbox"/>		→ 613
612	Who usually decides how the money you earn will be used: mainly you, mainly your (wife (wives)/partner(s)), or you and your (wife (wives)/partner(s)) jointly?	RESPONDENT 1 WIFE(WIVES)/PARTNER(S) 2 RESPONDENT AND WIFE (WIVES)/PARTNER(S) JOINTLY 3 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
613	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:	HUS- BAND	WIFE	BOTH EQUALLY	DON'T KNOW/ DEPENDS	
	a) making major household purchases?	a) 1	2	3	8	
	b) making purchases for daily household needs?	b) 1	2	3	8	
	c) deciding about visits to the wife's family or relatives?	c) 1	2	3	8	
	d) deciding what to do with the money she earns for her work?	d) 1	2	3	8	
	e) deciding how many children to have?	e) 1	2	3	8	
614	I will now read you some statements about pregnancy. Please tell me if you agree or disagree with them.			DIS- AGREE	DK	
	a) Childbearing is a woman's concern and there is no need for the father to get involved.	CHILDBEARING WOMAN'S CONCERN	1	2	8	
	b) It is crucial for the mother's and child's health that a woman have assistance from a doctor, nurse or at delivery.	DOCTOR/NURSE'S ASSISTANCE CRUCIAL	1	2	8	
615	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:			YES	NO	DK
	If she goes out without telling him?	GOES OUT	1	2	8	
	If she neglects the children?	NEGL. CHILDREN	1	2	8	
	If she argues with him?	ARGUES	1	2	8	
	If she refuses to have sex with him?	REFUSES SEX	1	2	8	
	If she burns the food?	BURNS FOOD	1	2	8	
	If she refuses to cook?	REFUSES TO COOK	1	2	8	
	If he suspects her of being unfaithful?	UNFAITHFUL	1	2	8	
	If she refuses to clean the house?	DOES NOT CLEAN	1	2	8	
616	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to...			YES	NO	DON'T KNOW/ DEPENDS
	a) Get angry and reprimand her?	a) 1	2	8		
	b) Refuse to give her money or other means of support?	b) 1	2	8		
	c) Use force and have sex with her even if she doesn't want to?	c) 1	2	8		
	d) Go ahead and have sex with another woman?	d) 1	2	8		

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES 1 NO 2	→ 733																
702	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES 1 NO 2 DON'T KNOW 8																	
703	Can people get the AIDS virus from mosquito bites?	YES 1 NO 2 DON'T KNOW 8																	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES 1 NO 2 DON'T KNOW 8																	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES 1 NO 2 DON'T KNOW 8																	
706	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES 1 NO 2 DON'T KNOW 8																	
707	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES 1 NO 2 DON'T KNOW 8																	
708	Is it possible for a healthy-looking person to have the AIDS virus?	YES 1 NO 2 DON'T KNOW 8																	
709	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DK</td> </tr> <tr> <td>DURING PREG.</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>DURING DELIVERY</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BREASTFEEDING</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	DURING PREG.	1	2	8	DURING DELIVERY	1	2	8	BREASTFEEDING	1	2	8	
	YES	NO	DK																
DURING PREG.	1	2	8																
DURING DELIVERY	1	2	8																
BREASTFEEDING	1	2	8																
710	CHECK 709: AT LEAST <input type="checkbox"/> ONE 'YES' ↓	OTHER <input type="checkbox"/> →	→ 712																
711	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES 1 NO 2 DON'T KNOW 8																	
712	Have you heard about special antiretroviral drugs (ARV) that people infected with the AIDS virus can get from a doctor or a nurse to help them live longer?	YES 1 NO 2 DON'T KNOW 8																	
712A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.																		
713	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES 1 NO 2	→ 718																
714	When was the last time you were tested?	LESS THAN 12 MONTHS AGO 1 12 - 23 MONTHS AGO 2 2 OR MORE YEARS AGO 3																	
715	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST 1 OFFERED AND ACCEPTED 2 REQUIRED 3																	
716	I don't want to know the results, but did you get the results of the test?	YES 1 NO 2																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717	<p>Where was the test done?</p> <p>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL 11</p> <p>GOVT. HEALTH CENTER 12</p> <p>STAND-ALONE VCT CENTER ... 13</p> <p>FAMILY PLANNING CLINIC 14</p> <p>MOBILE CLINIC 15</p> <p>FIELDWORKER 16</p> <p>OTHER PUBLIC _____ 17</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC/</p> <p>PRIVATE DOCTOR 21</p> <p>STAND-ALONE VCT CENTER ... 22</p> <p>PHARMACY 23</p> <p>MOBILE CLINIC 24</p> <p>FIELDWORKER 25</p> <p>OTHER PRIVATE</p> <p>MEDICAL _____ 26</p> <p>(SPECIFY)</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	<p>→ 720</p>
718	<p>Do you know of a place where people can go to get tested for the AIDS virus?</p>	<p>YES 1</p> <p>NO 2</p>	<p>→ 720</p>
719	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).</p> <p>IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL A</p> <p>GOVT. HEALTH CENTER B</p> <p>STAND-ALONE VCT CENTER ... C</p> <p>FAMILY PLANNING CLINIC D</p> <p>MOBILE CLINIC E</p> <p>FIELDWORKER F</p> <p>OTHER PUBLIC _____ G</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC/</p> <p>PRIVATE DOCTOR H</p> <p>STAND-ALONE VCT CENTER ... I</p> <p>PHARMACY J</p> <p>MOBILE CLINIC K</p> <p>FIELDWORKER L</p> <p>OTHER PRIVATE</p> <p>MEDICAL _____ M</p> <p>(SPECIFY)</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
720	<p>Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	
721	<p>If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?</p>	<p>YES, REMAIN A SECRET 1</p> <p>NO 2</p> <p>DK/NOT SURE/DEPENDS 8</p>	
722	<p>If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?</p>	<p>YES 1</p> <p>NO 2</p> <p>DK/NOT SURE/DEPENDS 8</p>	
723	<p>In your opinion, if a teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?</p>	<p>SHOULD BE ALLOWED 1</p> <p>SHOULD NOT BE ALLOWED 2</p> <p>DK/NOT SURE/DEPENDS 8</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES 1 NO 2 DK ANYONE WITH AIDS 3	→ 729
725	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES 1 NO 2	
726	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES 1 NO 2	
727	CHECK 724, 725, AND 726: AT LEAST ONE 'YES' <input type="checkbox"/> OTHER <input type="checkbox"/>		→ 729
728	Do you personally know someone who has or is suspected to have the AIDS virus?	YES 1 NO 2	
729	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE 1 DISAGREE 2 DON'T KNOW/NO OPINION 8	
730	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE 1 DISAGREE 2 DON'T KNOW/NO OPINION 8	
731	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES 1 NO 2 DK/NOT SURE/DEPENDS 8	
732	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS?	YES 1 NO 2 DK/NOT SURE/DEPENDS 8	
733	CHECK 701: HEARD ABOUT AIDS <input type="checkbox"/> Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS <input type="checkbox"/> Have you heard about infections that can be transmitted through sexual contact?	YES 1 NO 2	
734	CHECK 414: HAS HAD SEXUAL INTERCOURSE <input type="checkbox"/> HAS NOT HAD SEXUAL INTERCOURSE <input type="checkbox"/>		→ 742
735	CHECK 733: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES <input type="checkbox"/> NO <input type="checkbox"/>		→ 737
736	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES 1 NO 2 DON'T KNOW 8	
737	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
738	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES 1 NO 2 DON'T KNOW 8	
739	CHECK 736, 737, AND 738: HAS HAD AN INFECTION (ANY 'YES') <input type="checkbox"/> HAS NOT HAD AN INFECTION OR DOES NOT KNOW <input type="checkbox"/>		→ 742
740	The last time you had (PROBLEM FROM 736/737/738), did you seek any kind of advice or treatment?	YES 1 NO 2	→ 742
741	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL A GOVT. HEALTH CENTER B STAND-ALONE VCT CENTER C FAMILY PLANNING CLINIC D MOBILE CLINIC E FIELDWORKER F OTHER PUBLIC _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR H STAND-ALONE VCT CENTER ... I PHARMACY J MOBILE CLINIC K FIELDWORKER L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER SOURCE SHOP N OTHER _____ X (SPECIFY)	
742	Husband and wives do not always agree in everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES 1 NO 2 DON'T KNOW 8	
743	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES 1 NO 2 DON'T KNOW 8	
744	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES 1 NO 2 DON'T KNOW 8	
745	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with women other than his wives?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
809	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES 1 NO 2 DON'T KNOW 8	
810	Do you currently smoke cigarettes?	YES 1 NO 2	→ 812
811	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES <input type="text"/> <input type="text"/>	
812	Do you currently smoke or use any other type of tobacco?	YES 1 NO 2	→ 814
813	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE A CHEWING TOBACCO B SNUFF C OTHER _____ X (SPECIFY)	
814	Are you covered by any health insurance?	YES 1 NO 2	→ 1101
815	What type of health insurance? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY BASED HEALTH INSURANCE A HEALTH INSURANCE THROUGH EMPLOYER B SOCIAL SECURITY C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. D OTHER _____ X (SPECIFY)	

SECTION 9. FEMALE GENITAL CUTTING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
901	Have you ever heard of female circumcision?	YES 1 NO 2	→ 903								
902	In a number of countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES 1 NO 2	→ 907								
903	What benefits do girls themselves get if they are circumcised? PROBE: Any other benefits? RECORD ALL MENTIONED.	CLEANLINESS/HYGIENE A SOCIAL ACCEPTANCE B BETTER MARRIAGE PROSPECTS ... C PRESERVE VIRGINITY/PREVENT PREMARITAL SEX D MORE SEXUAL PLEASURE FOR THE MAN E RELIGIOUS APPROVAL F OTHER _____ X (SPECIFY) NO BENEFITS Y									
904	Do you believe that this practice is required by your religion?	YES 1 NO 2 DON'T KNOW 8									
905	Do you think that this practice should be continued, or should it be discontinued?	CONTINUED 1 DISCONTINUED 2 DEPENDS 3 DON'T KNOW 8									
906	Would you like to marry a woman who is not circumscised (her genitals are not cut)?	YES 1 NO 2 DON'T KNOW 8									
907	RECORD THE TIME.	HOUR <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MINUTES <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									