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Demographic and Health Survey

2010

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Ministry of Planning
Phnom Penh, Cambodia

Directorate General for Health
Ministry of Health
Phnom Penh, Cambodia

MEASURE DHS
ICF Macro
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CONTENTS

Page

TABLES AND FIGURES ix
FOREWORD xv
ACKNOWLEDGMENTS xvii
SUMMARY OF FINDINGS xix
MAP OF CAMBODIA xxiv

CHAPTER 1 INTRODUCTION

1.1 Geodemography, History, and Economy 1
1.1.1 Geodemography 1
1.1.2 History 1
1.1.3 Economy 2

1.2 Health Status and Policy 2
1.3 Objective and Survey Organization 3
1.4 Sample Design 4
1.5 Questionnaires 5
1.6 Training and Fieldwork 6
1.7 Data Processing 6
1.8 Sample Coverage 7

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2.1 Characteristics of the Household Population 9
2.1.1 Age and Sex Composition 9
2.1.2 Household Composition 11

2.2 Education of the Household Population 11
2.2.1 School Attendance Ratios 14

2.3 Housing Characteristics 16
2.3.1 Water Supply 16
2.3.2 Sanitation Facilities 18
2.3.3 Cooking Arrangements 19

2.4 Household Possessions 20
2.5 Household Wealth 21
2.6 Birth Registration 22

CHAPTER 3 UTILIZATION OF HEALTH SERVICES FOR ACCIDENT, ILLNESS, OR INJURY

3.1 Accidental Death or Injury 25
3.1.1 Frequency of Accidental Death or Injury 25
3.1.2 Type of Accident 26

3.2 Physical Impairment 28
3.3 Prevalence and Severity of Illness or Injury 29
3.4 Treatment Sought for Illness or Injury 30
3.5 Utilization of Health Care Facilities 31
3.6 Cost for Health Care 33
3.6.1 Distribution of Cost for Health Care 33
3.6.2 Expenditures for Health Care 34

CHAPTER 4 RESPONDENT CHARACTERISTICS

4.1 Characteristics of Survey Respondents 39
4.2 Educational Attainment and Literacy 40
4.3 Access to Mass Media 44
4.4 Employment 47
4.4.1 Employment Status 47
4.4.2 Occupation 50
4.4.3 Earnings, Employers, and Continuity of Employment 52

4.5 Health Insurance 53
4.6 Use of Tobacco 54

CHAPTER 5 FERTILITY

5.1 Current Fertility Levels and Differentials 57
5.2 Fertility Trends 59
5.2.1 Comparison of Current and Cumulative Fertility Levels 59
5.2.2 Retrospective Data 59
5.2.3 Comparison with Previous CDHS 60

5.3 Children Ever Born and Living 61
5.4 Birth Intervals 63
5.5 Age at First Birth 64
5.6 Teenage Pregnancy and Motherhood 65

CHAPTER 6 PRACTICE OF ABORTION

6.1 Number of Induced Abortions in the Past Five Years 67
6.2 Practice of Abortion in the Past Five Years 69
6.2.1 Pregnancy Duration at the Time of Abortion 69
6.2.2 Place of Abortion 70
6.2.3 Persons Who Helped with the Abortion 71
6.2.4 Method Used for the Abortion 71

CHAPTER 7 FAMILY PLANNING

7.1 Knowledge of Contraceptive Methods 73
7.2 Current Use of Contraceptive Methods 74
7.3 Use of Social Marketing Brands 79
7.4 Knowledge of Fertile Period 80
7.5 Timing of Sterilization 80
7.6 Source of Family Planning Methods 81

7.7 Informed Choice 82
7.8 Future Use of Contraception 83
7.9 Exposure to Family Planning Messages 83
7.10 Contact of Nonusers with Family Planning Providers 85

CHAPTER 8 OTHER PROXIMATE DETERMINANTS OF FERTILITY

8.1 Marital Status 87
8.2 Age at First Marriage 88
8.3 Age at First Sexual Intercourse 90
8.4 Recent Sexual Activity 93
8.5 Postpartum Amenorrhea, Abstinence, and Insusceptibility 96
8.6 Termination of Exposure to Pregnancy 98

CHAPTER 9 FERTILITY PREFERENCES

9.1 Desire for More Children 99
9.2 Need for Family Planning Services 101
9.3 Ideal Family Size 103
9.4 Fertility Planning 105

CHAPTER 10 ADULT AND MATERNAL MORTALITY

10.1 Data Quality Issues 109
10.2 Adult Mortality 110

CHAPTER 11 INFANT AND CHILD MORTALITY

11.1 Assessment of Data Quality 113
11.2 Levels and Trends in Childhood Mortality 114
11.3 Socioeconomic Differentials in Childhood Mortality 115
11.4 Demographic Differentials in Mortality 117
11.5 High-Risk Fertility Behavior 118

CHAPTER 12 MATERNAL HEALTH

12.1 Antenatal Care 121
12.1.1 Source of Antenatal Care 121
12.1.2 Components of Antenatal Care 123
12.1.3 Tetanus Toxoid Vaccinations 124

12.2 Childbirth and Delivery 126
12.2.1 Place of Delivery 126
12.2.2 Assistance at Delivery 127

12.3 Postnatal Care and Practices 128
12.4 Perceived Problems in Accessing Women's Health Care 131

CHAPTER 13 CHILD HEALTH

13.1 Child's Size at Birth 133
13.2 Immunization of Children 134
13.2.1 Trends in Vaccination Coverage 136

13.3 Acute Respiratory Infection 137
13.4 Fever 139
13.5 Diarrhea 141
13.6 Feeding Practices 143
13.7 Knowledge of ORS Packets 145
13.8 Stool Disposal 145

CHAPTER 14 NUTRITION OF CHILDREN AND WOMEN

14.1 Nutritional Status of Children 147
14.1.1 Measurement of Nutritional Status among Young Children 147
14.1.2 Measures of Child Nutritional Status 149
14.1.3 Trends in Children's Nutritional Status 151

14.2 Initiation of Breastfeeding 152
14.3 Breastfeeding Status by Age 154
14.4 Duration of Breastfeeding 156
14.5 Types of Complementary Foods 157
14.6 Infant and Young Child Feeding (IYCF) Practices 158
14.7 Prevalence of Anemia in Children 161
14.8 Micronutrient Intake among Children 163
14.9 Use of Iodized Salt 165
14.10 Nutritional Status of Women 166
14.11 Prevalence of Anemia in Women 168
14.12 Micronutrient Intake among Mothers 170

CHAPTER 15 HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

15.1 Knowledge of HIV/AIDS and of Transmission and Prevention Methods 173
15.1.1 Awareness of AIDS 173
15.1.2 HIV Prevention Methods 174
15.1.3 Knowledge about Transmission 175
15.1.4 Knowledge of Mother-to-Child Transmission 178

15.2 Stigma Associated with AIDS and Attitudes Related to HIV/AIDS 179
15.3 Attitudes towards Negotiating Safer Sex 181
15.4 Multiple Sexual Partnerships 183
15.5 Testing for HIV 186
15.6 Reports of Recent Sexually Transmitted Infections 189
15.7 Injections 191
15.8 HIV/AIDS-Related Knowledge and Behavior among Youth 192
15.8.1 Knowledge about HIV/AIDS and Source for Condoms 192
15.8.2 Age at First Sex and Condom Use at First Sexual Intercourse 194
15.8.3 Recent Sexual Activity 195
15.8.4 Multiple Sexual Partnerships 196
15.8.5 HIV Testing 197

CHAPTER 16 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

16.1 Employment and Forms of Earnings 199
16.2 Control over Women's and Men's Earnings 199
16.3 Women's Participation in Household Decision-making 203
16.4 Attitudes towards Wife Beating 206
16.5 Women's Empowerment Indicators 209
16.6 Current Use of Contraception by Women's Status 209
16.7 Ideal Family Size and Unmet Need by Women's Status 210
16.8 Reproductive Health Care and Women's Empowerment Status 211

REFERENCES 213

APPENDIX A SAMPLE IMPLEMENTATION 215

A.1 Introduction 215
A.2 Sampling Frame 215
A.3 Sampling Procedure 216
A.4 Sampling Probabilities 218

APPENDIX B ESTIMATES OF SAMPLING ERRORS 223

APPENDIX C DATA QUALITY TABLES 249

APPENDIX D PERSONS INVOLVED IN THE 2010 CAMBODIA DEMOGRAPHIC AND HEALTH SURVEY 255

APPENDIX E QUESTIONNAIRES 259

TABLES AND FIGURES

Page

CHAPTER 1 INTRODUCTION

Table 1.1 Results of the household and individual interviews 7

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

Table 2.1 Household population by age, sex, and residence 10
Table 2.2 Population by age according to selected sources 11
Table 2.3 Household composition 11
Table 2.4.1 Educational attainment of the female household population 12
Table 2.4.2 Educational attainment of the male household population 13
Table 2.5 School attendance ratios 14
Table 2.6 Household drinking water 17
Table 2.7 Household sanitation facilities 19
Table 2.8 Household characteristics 20
Table 2.9 Household durable goods 21
Table 2.10 Wealth quintiles 22
Table 2.11 Birth registration of children under age five 23

Figure 2.1 Population Pyramid 10
Figure 2.2 Age-specific Attendance Rates 16

CHAPTER 3 UTILIZATION OF HEALTH SERVICES FOR ACCIDENT, ILLNESS, OR INJURY

Table 3.1 Injury or death in an accident 26
Table 3.2 Injury or death in an accident by type of accident 27
Table 3.3 Physical impairment 28
Table 3.4 Prevalence and severity of illness or injury in previous 30 days 30
Table 3.5 Percentage of ill or injured population who sought treatment 31
Table 3.6 Percentage of ill or injured population who sought treatment, by place of treatment 32
Table 3.7 Distribution of cost for health care 34
Table 3.8 Expenditures for health care 35
Table 3.9 Source of money spent by persons who sought treatment for health care 36

Figure 3.1 Percentage of Household Members Ill or Injured Seeking Treatment by Order of Treatment and Sector of Health Care 33

CHAPTER 4 RESPONDENT CHARACTERISTICS

Table 4.1 Background characteristics of respondents 40
Table 4.2.1 Educational attainment: Women 41
Table 4.2.2 Educational attainment: Men 42
Table 4.3.1 Literacy: Women 43

Table 4.3.2 Literacy: Men 44
Table 4.4.1 Exposure to mass media: Women 45
Table 4.4.2 Exposure to mass media: Men 46
Table 4.5.1 Employment status: Women 48
Table 4.5.2 Employment status: Men 49
Table 4.6.1 Occupation: Women 50
Table 4.6.2 Occupation: Men 51
Table 4.7 Type of employment: Women 52
Table 4.8.1 Health insurance coverage: Women 53
Table 4.8.2 Health insurance coverage: Men 54
Table 4.9.1 Use of tobacco: Women 55
Table 4.9.2 Use of tobacco: Men 56

Figure 4.1 Women's Employment Status in the Past 12 Months 47

CHAPTER 5 FERTILITY

Table 5.1 Current fertility 57
Table 5.2 Fertility by background characteristics 58
Table 5.3.1 Trends in age-specific fertility rates 60
Table 5.3.2 Trends in age-specific and total fertility rates 61
Table 5.4 Children ever born and living 62
Table 5.5 Birth intervals 63
Table 5.6 Age at first birth 64
Table 5.7 Median age at first birth 65
Table 5.8 Teenage pregnancy and motherhood 66

Figure 5.1 Age-specific Fertility Rates for Five-year Periods Preceding the Survey 60
Figure 5.2 Trends in Age-specific Fertility Rates, Various Sources, 2000-2010 61

CHAPTER 6 PRACTICE OF ABORTION

Table 6.1 Number of induced abortions 68
Table 6.2 Pregnancy duration at the time of abortion 70
Table 6.3 Place of abortion 70
Table 6.4 Persons who helped with abortion 71
Table 6.5 Method used for the abortion 72

Figure 6.1 Distribution of Number of Abortions for Women Who Report Having an Induced Abortion 69

CHAPTER 7 FAMILY PLANNING

Table 7.1 Knowledge of contraceptive methods 73
Table 7.2 Knowledge of contraceptive methods by background characteristics 74
Table 7.3 Current use of contraception by age 75
Table 7.4.1 Current use of contraception by background characteristics 77
Table 7.4.2 Trends in current use of contraception 78
Table 7.5 Use of social marketing brand pills and condoms 79
Table 7.6 Knowledge of fertile period 80
Table 7.7 Timing of sterilization 80
Table 7.8 Source of modern contraception methods 81
Table 7.9 Informed choice 82

Table 7.10 Future use of contraception 83
Table 7.11 Exposure to family planning messages 84
Table 7.12 Contact of nonusers with family planning providers 85

Figure 7.1 Trends in Contraceptive Use among Currently Married Women 78

CHAPTER 8 OTHER PROXIMATE DETERMINANTS OF FERTILITY

Table 8.1 Current marital status 87
Table 8.2 Age at first marriage 88
Table 8.3.1 Median age at first marriage: Women 89
Table 8.3.2 Median age at first marriage: Men 90
Table 8.4 Age at first sexual intercourse 91
Table 8.5.1 Median age at first intercourse: Women 92
Table 8.5.2 Median age at first intercourse: Men 93
Table 8.6.1 Recent sexual activity: Women 94
Table 8.6.2 Recent sexual activity: Men 95
Table 8.7 Postpartum amenorrhea, abstinence, and insusceptibility 96
Table 8.8 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility 97
Table 8.9 Menopause 98

CHAPTER 9 FERTILITY PREFERENCES

Table 9.1 Fertility preferences by number of living children 99
Table 9.2.1 Desire to limit childbearing: Women 100
Table 9.2.2 Desire to limit childbearing: Men 101
Table 9.3 Need and demand for family planning among currently married women 102
Table 9.4 Ideal number of children 104
Table 9.5 Mean ideal number of children 105
Table 9.6 Fertility planning status 106
Table 9.7 Wanted fertility rates 107

CHAPTER 10 ADULT AND MATERNAL MORTALITY

Table 10.1 Data on siblings 109
Table 10.2 Sibship size and sex ratio of siblings 110
Table 10.3 Adult mortality rates 111

Figure 10.1 Confidence Interval of the Maternal Mortality Rates for the Period of 2000-2005 (CDHS 2005) and 2005-2010 (CDHS 2010) 112

CHAPTER 11 INFANT AND CHILD MORTALITY

Table 11.1 Early childhood mortality rates 114
Table 11.2 Early childhood mortality rates by socioeconomic characteristics 116
Table 11.3 Early childhood mortality rates by demographic characteristics 117
Table 11.4 High-risk fertility behavior 119

Figure 11.1 Trends in Childhood Mortality, 2000, 2005, and 2010 CDHS 115
Figure 11.2 Infant Mortality Rates by Socioeconomic Characteristics 116
Figure 11.3 Infant Mortality Rates by Demographic Characteristics 118

CHAPTER 12 MATERNAL HEALTH

Table 12.1 Antenatal care 122
Table 12.2 Number of antenatal care visits and timing of first visit 123
Table 12.3 Components of antenatal care 124
Table 12.4 Tetanus toxoid injections 125
Table 12.5 Place of delivery 127
Table 12.6 Assistance during delivery 128
Table 12.7 Timing of first postnatal checkup 129
Table 12.8 Type of provider of first postnatal checkup 130
Table 12.9 Problems in accessing health care 131

CHAPTER 13 CHILD HEALTH

Table 13.1 Child's weight and size at birth 134
Table 13.2 Vaccinations by source of information 135
Table 13.3 Vaccinations by background characteristics 136
Table 13.4 Prevalence and treatment of symptoms of ARI 138
Table 13.5 Prevalence and treatment of fever 140
Table 13.6 Prevalence of diarrhea 141
Table 13.7 Diarrhea treatment 142
Table 13.8 Feeding practices during diarrhea 144
Table 13.9 Knowledge of ORS packets 145
Table 13.10 Disposal of children's stools 146

Figure 13.1 Trend in Vaccination by 12 Months of Age among Children 12-23 Months 137

CHAPTER 14 NUTRITION OF CHILDREN AND WOMEN

Table 14.1 Nutritional status of children 150
Table 14.2 Initial breastfeeding 153
Table 14.3 Breastfeeding status by age 154
Table 14.4 Median duration of breastfeeding 156
Table 14.5 Foods and liquids consumed by children in the day or night preceding the interview 158
Table 14.6 Infant and young child feeding (IYCF) practices 160
Table 14.7 Prevalence of anemia in children 162
Table 14.8 Micronutrient intake among children 164
Table 14.9 Presence of iodized salt in household 166
Table 14.10 Nutritional status of women 167
Table 14.11 Prevalence of anemia in women 169
Table 14.12 Micronutrient intake among mothers 171

Figure 14.1 Nutritional Status of Children by Age 151
Figure 14.2 Trends in Nutritional Status of Children under Five Years 152
Figure 14.3 Infant Feeding Practices by Age 155
Figure 14.4 IYCF Indicators on Breastfeeding Status 157
Figure 14.5 Trends in the Infant and Young Child Feeding (IYCF) Practices 161
Figure 14.6 Trends in Anemia Status among Children under Five Years 163
Figure 14.7 Trends in Nutritional Status among Women 15-49 Years 168
Figure 14.8 Trends in Anemia Status among Women 15-49 Years 170

CHAPTER 15 HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

Table 15.1 Knowledge of AIDS 173
Table 15.2 Knowledge of HIV prevention methods 175
Table 15.3.1 Comprehensive knowledge about AIDS: Women 176
Table 15.3.2 Comprehensive knowledge about AIDS: Men 177
Table 15.4 Knowledge of prevention of mother-to-child transmission of HIV 179
Table 15.5.1 Accepting attitudes toward those living with HIV/AIDS: Women 180
Table 15.5.2 Accepting attitudes toward those living with HIV/AIDS: Men 181
Table 15.6 Attitudes toward negotiating safer sexual relations with husband 182
Table 15.7.1 Multiple sexual partners in the past 12 months: Women 184
Table 15.7.2 Multiple sexual partners in the past 12 months: Men 185
Table 15.8 Payment for sexual intercourse and condom use at last paid sexual intercourse: Men 186
Table 15.9.1 Coverage of prior HIV testing: Women 187
Table 15.9.2 Coverage of prior HIV testing: Men 188
Table 15.10 Pregnant women counseled and tested for HIV 189
Table 15.11 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms 190
Table 15.12 Prevalence of medical injections 192
Table 15.13 Comprehensive knowledge about AIDS and of a source of condoms among youth 193
Table 15.14 Age at first sexual intercourse among youth 195
Table 15.15 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth 196
Table 15.16 Multiple sexual partners in the past 12 months among youth 197
Table 15.17 Recent HIV tests among youth 198

Figure 15.1 Women and Men Seeking Treatment for STIs 191

CHAPTER 16 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

Table 16.1 Employment and cash earnings of currently married women and men 200
Table 16.2.1 Control over women's cash earnings and relative magnitude of women's earning 201
Table 16.2.2 Control over men's cash earnings 202
Table 16.3 Women's control over their own earnings and over those of their husband 203
Table 16.4 Women's participation in decision-making 204
Table 16.5 Women's participation in decision-making by background characteristics 205
Table 16.6.1 Attitude toward wife beating: Women 207
Table 16.6.2 Attitude toward wife beating: Men 208
Table 16.7 Indicators of women's empowerment 209
Table 16.8 Current use of contraception by women's status 210
Table 16.9 Women's empowerment and ideal number of children and unmet need for family planning 211
Table 16.10 Reproductive health care by women's empowerment 211

APPENDIX A SAMPLE IMPLEMENTATION

Table A.1 Percentage distribution of households and number of EAs by province and by type of residence (Sampling frame, Cambodia GPC 2008) 216
Table A.2 Percentage distribution of households and number of EAs by domain and by type of residence (Sampling frame, Cambodia GPC 2008) 216
Table A.3 Sample allocation of EAs and households by domain and by type of residence (CDHS 2010) 218
Table A.4 Sample allocation of expected number of interviews of women and men by domain and by type of residence (CDHS 2010) 218
Table A.5 Sample implementation: women 220
Table A.6 Sample implementation: men 221

APPENDIX B ESTIMATES OF SAMPLING ERRORS

Table B.1 List of selected variables for sampling errors, Cambodia DHS 2010 225
Table B.2 Sampling errors: Total sample, Cambodia DHS 2010 226
Table B.3 Sampling errors: Urban sample, Cambodia DHS 2010 227
Table B.4 Sampling errors: Rural sample, Cambodia DHS 2010 228
Table B.5 Sampling errors: Banteay Mean Chey sample, Cambodia DHS 2010 229
Table B.6 Sampling errors: Kampong Cham sample, Cambodia DHS 2010 230
Table B.7 Sampling errors: Kampong Chhnang sample, Cambodia DHS 2010 231
Table B.8 Sampling errors: Kampong Speu sample, Cambodia DHS 2010 232
Table B.9 Sampling errors: Kampong Thom sample, Cambodia DHS 2010 233
Table B.10 Sampling errors: Kandal sample, Cambodia DHS 2010 234
Table B.11 Sampling errors: Kratie sample, Cambodia DHS 2010 235
Table B.12 Sampling errors: Phnom Penh sample, Cambodia DHS 2010 236
Table B.13 Sampling errors: Prey Veng sample, Cambodia DHS 2010 237
Table B.14 Sampling errors: Pursat sample, Cambodia DHS 2010 238
Table B.15 Sampling errors: Siem Reap sample, Cambodia DHS 2010 239
Table B.16 Sampling errors: Svay Rieng sample, Cambodia DHS 2010 240
Table B.17 Sampling errors: Takeo sample, Cambodia DHS 2010 241
Table B.18 Sampling errors: Otdar Mean Chey sample, Cambodia DHS 2010 242
Table B.19 Sampling errors: Battambang & Pailin sample, Cambodia DHS 2010 243
Table B.20 Sampling errors: Kampot & Kep sample, Cambodia DHS 2010 244
Table B.21 Sampling errors: Preah Sihanouk & Koh Kong sample, Cambodia DHS 2010 .. 245
Table B.22 Sampling errors: Preah Vihear & Steung Tre sample, Cambodia DHS 2010 246
Table B.23 Sampling errors: Mondol Kiri & Rattanak Ki sample, Cambodia DHS 2010 247

APPENDIX C DATA QUALITY TABLES

Table C.1 Household age distribution 249
Table C.2.1 Age distribution of eligible and interviewed women 250
Table C.2.2 Age distribution of eligible and interviewed men 250
Table C.3 Completeness of reporting 251
Table C.4 Births by calendar years 251
Table C.5 Reporting of age at death in days 252
Table C.6 Reporting of age at death in months 253
Table C.7 Nutritional status of children 254

FOREWORD

The 2010 Cambodia Demographic and Health Survey (2010 CDHS) is the third survey of its kind to be conducted successfully in Cambodia. Sponsors are the United States Agency for International Development (USAID), United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF), Japan International Cooperation Agency (JICA), and the Health Sector Support Program-Second Phase (HSSP-2). Technical assistance is provided by ICF Macro. The Directorate General for Health (DGH) of the Ministry of Health and the National Institute of Statistics (NIS) of the Ministry of Planning are the project implementation agencies.

This report includes information on demography, family planning, maternal mortality, infant and child mortality, and women's health care status, including related information, such as breastfeeding, antenatal care, children's immunization, childhood diseases, and HIV/AIDS. The questionnaires (Household, Man's, and Woman's questionnaires) are designed to evaluate the nutritional status of mothers and children and to measure the prevalence of anemia.

The 2010 CDHS findings are expected to be used by policymakers and program managers to evaluate Cambodia's demographic and health status and then to formulate appropriate population and health policies and programs. The programs of reproductive health and child health and health facilities need to be expanded and improved based on the survey findings.

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Secretary of State
For Minister of Health

H.E. Ouk Chay
Secretary of State
For Senior Minister
Minister of Planning

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SUMMARY OF FINDINGS

The 2010 Cambodia Demographic and Health Survey (CDHS) is a nationally representative sample survey of 18,754 women and 8,239 men age 15-49. The 2010 CDHS is the third comprehensive survey conducted in Cambodia as part of the worldwide MEASURE DHS project. The primary purpose of the CDHS is to provide policymakers and planners with up-to-date, reliable data on fertility; family planning; infant, child, and maternal mortality; maternal and child health; nutrition; malaria; knowledge of HIV/AIDS, and women's status.

FERTILITY

Survey results indicate that the total fertility rate has declined, from 3.4 births per woman in 2005 to 3.0 births per woman in 2010. The rate continues to be lower in urban areas (2.2 births per woman) than in rural areas (3.3 births per woman). There is a substantial differential in fertility by region, ranging from a low of 2.0 births per woman in Phnom Penh to a high of 4.5 births per woman in Mondol Kiri/Rattanak Kiri. Both education and wealth affect fertility. Women with secondary or higher education have 1.3 fewer children than women with no education. The poorest women have more than twice as many children as the wealthiest.

Women age 25-49 begin having children at a median age of 22.3 years. Women living in urban areas have their first birth two years later than women living in rural areas. Their age at first birth is lowest in Mondol Kiri/Rattanak Kiri (21.0 years) and highest in Phnom Penh (24.8 years). Women with secondary and higher education begin childbearing at a later age than those who do not attend school and those who complete only a primary education.

Marriage and sexual initiation patterns are important determinants of fertility levels. Sixty-two percent of women interviewed are currently in a union, that is, married or living with a man. Women get married at a median age of 20.3. The median age at first marriage has been stable for the past 20 years. Women generally begin having sexual intercourse at about the same time as their first marriage, at the median age of 20.8. Women in urban areas tend to get married and initiate sexual activity around two years later than those living in rural areas. Women with higher levels of education also tend to marry and initiate sex later than those with lower levels of education. Men marry at a median age of 22.6 and initiate sex slightly before marriage at a median age of 22.1.

The interval between births is relatively long in Cambodia. The median number of months since the preceding birth is 40.0. Sixteen percent of non-first births occur within 24 months of the previous birth, and 26 percent occur 24 to 35 months after the previous birth. Thirty-two percent occur 36 to 59 months after a previous birth, and 25 percent occur 60 months or more after a previous birth.

More than half (56 percent) of currently married Cambodian women say they do not want any more children or they say they are sterilized. Another 25 percent would like to wait at least two years before having their next child. On average, Cambodian women would like to have 3.1 children.

About 5 percent of women have had an abortion in the past five years. Among those who have had an induced abortion, 26 percent have had more than one. Abortions most frequently take place in a private health facility or in someone's home. In almost 67 percent of cases, a doctor, nurse, midwife, or other health worker assists with the abortion.

FAMILY PLANNING

Practically all women are familiar with at least some methods of contraception. The daily contraceptive pill, the male condom, the IUD, and injectables are known to more than 95 percent of married women. Seventy-five percent of women know at least one traditional method of family planning.

Fifty-one percent of married women are currently using a contraceptive method; 35 percent

are using a modern method and 16 percent are using a traditional method. Use of contraception has increased substantially since 2005 when 27 percent of married women were using a modern method.

Use of modern methods of contraception is more common in rural areas than in urban areas (36 percent compared with 31 percent). Use of modern methods does not vary much by level of education. Use of modern methods is highest in Otdar Mean Chey (44 percent) and lowest in Kratie (24 percent).

Women obtain contraception from a variety of sources. The majority of users of female sterilization, injectables, IUDs, and implants obtain their method from the public sector. Forty-three percent of pill users rely on the public sector (mostly health centers), and 31 percent rely on the private sector (mostly pharmacies). Fifty-three percent of users of male condoms obtain the method from the private sector, and 47 percent get them from the public sector.

Just over half (53 percent) of currently married women who are not using a contraceptive method say that they intend to use a method in the future.

Seventeen percent of currently married women have an unmet need for family planning. That is, they do not want any more children or they want to wait at least two years before their next birth, but they are not currently using a method of contraception. The unmet need for limiting births (11 percent) is higher than the unmet need for spacing births (6 percent). Unmet need is especially high among women in the lowest wealth quintile and among women with a primary education or no schooling. Currently, 76 percent of the total need for family planning is being met.

Child Health

The 2010 CDHS data show a remarkable decline in childhood mortality. Currently there are 45 infant deaths for every 1,000 live births and 54 under-five deaths for every 1,000 live births. In 2005, infant mortality was 66 and under-five mortality was 83.

Childhood mortality varies throughout Cambodia. It is much higher in rural areas (with an under-five mortality of 75) than in urban areas (where under-five mortality is 29). Under-five mortality ranges from a high of 118 in Preah Vihear/Steung Treng to a low of 18 in Phnom Penh. Wealth and education are strongly linked with childhood death. Children whose mothers are in the lowest wealth quintile have a three times greater risk of dying before age 5 than those whose mothers are in the highest wealth quintile. Under-five mortality is also much higher among mothers who have received no schooling (87 percent) than among those whose mothers have attended secondary or higher levels of schooling (35 percent).

Survival of infants and children is also strongly influenced by sex of the child, mother's age at birth, birth order, and birth interval. Male children are more likely to die than female children. Childhood mortality is also highest among children whose mothers are over 40 years of age at birth. Childhood mortality increases with birth order. That is, first, second, and third children are at less risk of death than fourth and higher birth-order children. Finally, children who are born less than two years after a sibling are at a much more increased risk of infant and childhood death than those born two or more years after a sibling.

Four in five children age 12-23 months have received all the basic recommended vaccinations (BCG, three doses each of tetravalent/ pentavalent and polio, and measles). In 2005, only 67 percent of children had received all of these vaccinations. More than 90 percent have received BCG, tetravalent/pentavalent 2, and polio 2, while fewer have received the third doses of tetravalent/pentavalent and polio, and 82 percent have received the measles vaccine. Four percent of children have received no vaccinations at all. Vaccination coverage increases with household wealth and level of mother's education. Vaccination coverage is highest in Banteay Mean Chey (93 percent) and lowest in lowest in Mondol Kiri/Rattanak Kiri (28 percent).

Diagnosis and treatment of childhood diseases are essential to reducing mortality. Among children who had symptoms of acute respiratory infection in the two weeks before the survey, 64 percent were taken to a health facility or provider. Sixty-three percent of children with fever received this same treatment. Fifty-nine percent of children with diarrhea were taken to a health

provider. Fifty-three percent of children with diarrhea were treated with either oral rehydration therapy or increased fluids. Only 34 percent of children with diarrhea were given more fluids than usual during their illness.

Maternal Health

Antenatal care from a health professional has increased substantially since 2005. Eighty-nine percent of women who had a live birth in the five years preceding the survey received antenatal care in 2010 compared with only 69 percent in 2005. Antenatal care coverage is more common in urban areas (97 percent) than in rural areas (88 percent). Ninety-six percent of women with secondary and higher education receive antenatal care compared with only 77 percent of those with no education. Antenatal care coverage is highest in Phnom Penh (99 percent) and lowest in Mondol Kiri/Rattanak Kiri (62 percent). Fifty-nine percent of women have four or more antenatal care visits. The same proportion starts antenatal care in the first three months of pregnancy.

Only 80 percent of those who received antenatal care reported that they were informed of the signs of pregnancy complications.

Eighty-five percent of women with a birth in the five years before the survey were protected from neonatal tetanus, either because they received two tetanus toxoid injections or because they received injections during earlier pregnancies.

Just over half (54 percent) of the births that occur in the five years before the survey took place in a health facility, and 45 percent took place at home. This marks a great improvement since 2005 when only 22 percent of births occurred in a health facility. Health facility births are far more common in urban areas (86 percent) than in rural areas (48 percent) and among women with secondary or higher education and those in the highest wealth quintile. Seventy-one percent of births were assisted by a trained health professional (doctor, nurse, or midwife). This also represents a great improvement because only 44 percent of births received trained assistance in 2005. Ninety-five percent of births in urban areas received assistance from a trained health provider compared with 67 percent in rural areas. Trained assistance at delivery is most common in Phnom Penh (99 percent of births) and least common in Preah Vihear/Steung Treng (28 percent).

The 2010 CDHS reports a maternal mortality rate of 206 deaths per 100,000 live births.

Breastfeeding and Nutrition

Almost all Cambodian children are breastfed. About two-thirds begin breastfeeding within an hour of birth, while 86 percent begin breastfeeding within a day of birth. Children are breastfed for an average of 20.3 months, but they are exclusively breastfed for only 4.9 months. Seventy-four percent of infants under age of 6 months are exclusively breastfed, as recommended by WHO.

The 2010 CDHS includes biomarker testing for anemia as well as information on micronutrient intake. Fifty-five percent of childrenage6-59 months have some degree of anemia. The anemia is moderate or severe in 27 percent of children. The majority of children age 6-23 months had consumed foods rich in vitamin A and iron on the day before the survey. Seventy-one percent of children age 6-59 months had received vitamin A supplements in the 6 months before the survey. Only 2 percent had received iron supplements in the week before the survey. Eighty-three percent of households had adequately iodized salt.

The nutritional status of children has not changed much in the past five years. Currently, 40 percent of children are stunted and 11 percent are wasted, compared with 43 and 8 percent in 2005. Stunting is most common in Preah Vihear/Steung Treng (56 percent) and least common in Phnom Penh (25 percent). In general, children with uneducated mothers and those living in the poorest households are most likely to be malnourished.

Women also suffer from nutritional deficiencies. Forty-four percent of women have some degree of anemia. Forty-four percent of women received a vitamin A dose postpartum. Only 57 percent took iron tablets or syrup for 90 or more days during pregnancy, as recommended.

Nineteen percent of Cambodian women age 15-49 are considered thin, while 11 percent are

overweight or obese. The percentage of underweight women has remained stable over the last 10 years, while the percentage of overweight women has increased since 2000.

HIV/AIDS

Practically all Cambodians have heard of AIDS. Three in four women and 80 percent of men age 15-49 know the two major methods of preventing HIV transmission: using condoms and limiting sexual intercourse to one uninfected partner. Misconceptions about HIV/AIDS are still fairly common. Only sixty-three percent of women and 61 percent of men know that a healthy-looking person can have the AIDS virus, and only 71 percent of women and 75 percent of men know that AIDS cannot be transmitted by mosquito bites. Almost nine in ten women know that HIV can be transmitted to an infant through breastfeeding, but only 58 percent know that this risk can be minimized if the mother takes special drugs during pregnancy.

Certain behaviors put individuals at higher risk for contracting HIV. Almost no women and less than 2 percent of men reportedly had two or more sexual partners during the 12 months preceding the survey. Only 40 percent of these men reported wearing a condom at last sexual intercourse. Eleven percent of men reported ever paying for sex, and 4 percent reported paying for sex in the year before the survey. Only 82 percent of the men who paying for sex in the past year reported using a condom the last time they paid for sex.

HIV testing is relatively uncommon in Cambodia. About 7 of 10 men and women know where to get an HIV test, but only 23 percent of women and 24 percent of men have ever taken an HIV test and received the results.

Women's Status

Cambodian women are usually involved in all three of the specific household decisions asked about in the survey, although the extent of their involvement depends on the issue being decided. About 45 percent of women say they alone make decisions about their own health care. However, decisions about major household purchases and visits to the wife's family or relatives are usually made jointly by the husband and wife.

The 2010 CDHS gathered information on women's and men's attitudes toward wife beating, a proxy for women's status. Respondents were asked whether a husband is justified in beating his wife if she burns the food, argues with him, goes out without telling him, neglects the children, refuses to have sex with him, and asks him to use a condom. Nearly half of women (46 percent) but only 22 percent of men believe that a husband is justified in beating his wife for at least one of the six specified reasons. Only 8 percent of women and 3 percent of men believe that wife beating is justified if a woman asks her husband to use a condom.

Use of Health Services for Accident or Injury

Two percent of household members were injured or killed in an accident in the year before the survey. Two-thirds of injuries and deaths are attributed to road accidents. Eleven percent of household members had an illness or injury in the month before the survey. Among them, 92 percent sought a first treatment, 23 percent sought a second treatment, and 8 percent sought a third treatment. Mean costs for first, second, and third treatments (including cost of transport) are $30.49, $43.92, and $21.50, respectively. Mean cost of transport increases with treatment order, from $2.08 for the first treatment to $3.00 for the second treatment and then $4.04 for the third treatment.

CAMBODIA

N
THAILAND
LAOS
Otdar Mean Chey
Banteay Mean Chey
Siem Reap
Preah Vihear / Steung Treng
Mondol Kiri / Rattanak Kiri
Battambang / Pailin
Kampong Thom
Kratie
Pursat
Kampong Chhnang
Phnom Penh
Kampong Cham
Prey Veng
Kampong Speu
Kandal
Preah Sihanouk / Koh Kong
Svay Rieng
VIETNAM
Takeo
Kampot / Kep
0 25 50 100 150 200
Kilometers

INTRODUCTION 1

1.1 GEODEMOGRAPHY, HISTORY, AND ECONOMY

1.1.1 Geodemography

Cambodia is an agricultural country located in Southeast Asia. It borders with Thailand to the west, Laos and Thailand to the north, the Gulf of Thailand to the southwest, and Vietnam to the east and the south. It has a total land area of 181,035 square kilometers.

Cambodia has a tropical climate with two distinct monsoon seasons that set the rhythm of rural life. From November to February, the cool, dry northeastern monsoon brings little rain, whereas from May to October the southwestern monsoon carries strong winds, high humidity, and heavy rains. The mean annual temperature for Phnom Penh, the capital city, is 27°C.

The 1962 population census was the last official census to be conducted prior to 1998; it revealed a population of 5.7 million. The population census in 1998 recorded a population of 11.4 million with an annual growth rate of 2.5 percent (National Institute of Statistics, 1999). The 2004 Inter-Censal Population Survey showed that the annual growth rate had declined to 1.8 percent, with a total population of 13.1 million (National Institute of Statistics, 2004). The 2008 General Population Census (GPC) showed a further decrease in the annual growth rate to 1.54, with a total population of 13.4 million (National Institute of Statistics, 2009). The proportion of the population living in rural areas is 80.5 percent; only 19.5 percent of the country's residents live in urban areas. The population density in the country as a whole is 75 per square kilometer, with approximately 1.3 million inhabitants living in Phnom Penh. The average size of the Cambodian household is 4.7. The total male to female sex ratio is 94.7. The literacy rate among adults age 15 and older is 78 percent, with the male adult literacy rate (85 percent) being considerably higher than the rate among females (71 percent). Currently, it is estimated that approximately 28 percent of the total population lives below the poverty line.

1.1.2 History

Cambodia gained complete independence from France under the leadership of Prince Norodom Sihanouk on 9 November 1953. In March 1970, a military coup led by General Lon Nol overthrew Prince Sihanouk.

On 17 April 1975, the Khmer Rouge ousted the Lon Nol regime and took control of the country. Under the new regime, the country was renamed Democratic Kampuchea. Nearly 2 million Cambodian people died during the Khmer Rouge's radical and genocidal regime.

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

The country's most important political event was the free elections held in May 1993 under the close supervision of the United Nations Transitional Authority in Cambodia (UNTAC). At that time Cambodia was proclaimed the Kingdom of Cambodia, and is a constitutional monarchy. Three additional free and fair elections took place in 1998, 2003, and 2008. Now Cambodia is stable and well on its way to democracy and a promising future.

1.1.3 Economy

Since the 1991 Paris Peace Accord, Cambodia's economy has made significant progress after more than two decades of political unrest. However, Cambodia still remains one of the poorest and least developed countries in Asia, with the gross domestic product per capita estimated at approximately 3.3 million Riel or $805 in 2010 (US$1 = 4,087 Riel) (International Monetary Fund, 2011). Agriculture, mainly rice production, is still the main economic activity in Cambodia. Small-scale subsistence agriculture, such as fisheries, forestry, and livestock, is another important sector. Garment factories and tourism services are also important components of foreign direct investments.

1.2 HEALTH STATUS AND POLICY

Health outcomes have improved recently. The infant mortality rate has decreased from 66 per 1,000 live births in 2005 to 45 per 1,000 live births in 2010. The under-five mortality rate decreased from 83 per 1,000 live births to 54 per 1,000 live births in the same period. Life expectancy at birth is 60.5 years for males and 64.3 years for females (National Institute of Statistics, 2009). General government expenditures on health per capita increased from US$4 in 2000 to US$7 in 2005 and US$11 in 2009 (WHO, 2011). The health status of the Cambodian people has steadily improved in a number of key areas. Nonetheless, challenges remain in many other areas.

To improve the health status of the Cambodian people, the Ministry of Health developed the Health Sector Strategic Plan for 2008-2015 (Ministry of Health, 2008). Its policy direction is as follows:

- Make services more responsive and closer to the public through implementation of a decentralized service delivery function and a management function guided by the national "Policy on Service Delivery" and the policy on "Decentralization and Deconcentration."

- Strengthen sector-wide governance through implementation of a sector wide approach, focusing on increased national ownership and accountability to improved health outcomes, harmonization and alignment, greater coordination and effective partnerships among all stakeholders.

- Scale up access to and coverage of health services, especially comprehensive reproductive, maternal, newborn and child health services both demand and supply side through mechanisms such as institutionalization and expansion of contracting through Special Operating Agencies, exemptions for the poor, health equity funds, and health insurance.

- Implement pro-poor health financing systems, including exemptions for the poor and expansion of health equity funds, in combination with other forms of social assistance mechanisms.

- Reinforce health legislation, professional ethics and code of conduct, and strengthen regulatory mechanisms, including for the production and distribution of pharmaceuticals, drug quality control, cosmetics, food safety and hygiene, to protect providers and consumers' rights and their health.

- Improve quality in service delivery and management through establishment of and compliance with the national protocols, clinical practice guidelines and quality standards, in particular establishment of accreditation systems.

- Increase competency and skills of health workforce to deal with increased demand for account-ability and high quality care, including through strengthening allied technical

skills and advanced technology through increased quality practice of training, career development, right incentives, and good working environment.

- Strengthen and invest in health information system and health research for evidence-based policy-making, planning, monitoring performance and evaluation.

- Increase investment in physical infrastructures and medical care equipment and advanced technology, as well as in improvement of non-medical support services including management, maintenance, blood safety, and supply systems for drugs and commodities.

- Promote quality of life and healthy lifestyles of the population by raising health awareness and creating supportive environments, including through strengthening institutional structures, financial and human resources, and IEC materials for health promotion, behavior change communication and appropriate health-seeking practices.

- Prevent and control communicable and selected chronic and non-communicable diseases, and strengthen disease surveillance systems for effective response to emerging and remerging diseases.

- Strengthen public health interventions to deal with cross-cutting challenges, especially gender, health of minorities, hygiene and sanitation, school health, environmental health risks, substance abuse/mental health, injury, occupational health, disaster, through timely response, effective collaboration and coordination with other sectors.

- Promote effective public and private partnerships in service provision based on policy, regulation, legislations and technical standards.

- Encourage community engagement in health service delivery activities, management of health facilities and continuous quality improvement.

- Systematically strengthen institutions at all levels of the health system to implement policy agenda listed under the previous 14 elements.

1.3 OBJECTIVE AND SURVEY ORGANIZATION

The 2010 Cambodia Demographic and Health Survey (CDHS) is the third nationally representative survey conducted in Cambodia on population and health issues. It uses the same methodology as its predecessors, the 2000 and the 2005 Cambodia Demographic and Health Surveys, allowing policymakers to use these surveys to assess trends over time.

The primary objective of the CDHS is to provide the Ministry of Health (MOH), Ministry of Planning (MOP), and other relevant institutions and users with updated and reliable data on infant and child mortality, fertility preferences, family planning behavior, maternal mortality, utilization of maternal and child health services, health expenditures, women's status, and knowledge and behavior regarding HIV/AIDS and other sexually transmitted infections. This information contributes to policy decisions, planning, monitoring, and program evaluation for the development of Cambodia at both the national and local government levels.

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

The 2010 CDHS survey was conducted by the Directorate General for Health (DGH) of the Ministry of Health and the National Institute of Statistics of the Ministry of Planning. The CDHS executive committee and technical committee were established to oversee all technical aspects of implementation. They consisted of representatives from the Ministry of Health, the Ministry of

Planning, the National Institute of Statistics, the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and the Japan International Cooperation Agency (JICA). Funding for the survey came from USAID, UNFPA, UNICEF, JICA, and the Health Sector Support Program–Second Phase (HSSP-2). Technical assistance was provided by ICF Macro.

1.4 SAMPLE DESIGN

The 2010 CDHS sample is a nationally representative sample of women and men between the ages of 15 and 49 who completed interviews. To achieve a balance between the ability to provide estimates at the subnational level and limiting the sample size, 19 sampling domains were defined, 14 of which correspond to individual provinces and 5 of which correspond to grouped provinces.

- Fourteen individual provinces: Banteay Mean Chey, Kampong Cham, Kampong Chhnang, Kampong Speu, Kampong Thom, Kandal, Kratie, Phnom Penh, Prey Veng, Pursat, Siem Reap, Svay Rieng, Takeo, and Otdar Mean Chey

- Five groups of provinces: Battambang and Pailin, Kampot and Kep, Preah Sihanouk and Koh Kong, Preah Vihear and Steung Treng, and Mondol Kiri and Rattanak Kiri

The sample of households was allocated to the sampling domains in such a way that national-level estimates of indicators could be produced with precision, separately for urban and rural areas of the country and for each of the 19 sampling domains.

The sampling frame used for the 2010 CDHS was the complete list of all villages enumerated in the 2008 Cambodia General Population Census provided by NIS. It included the entire country and consisted of 28,764 enumeration areas (EAs). The GPC also created maps that delimited the boundaries of every EA. Overall, 4,301 EAs were designated as urban and 24,373 as rural, with an average size of 98 households per EA.

The survey was based on a stratified sample selected in two stages. Stratification was achieved by separating every reporting domain into urban and rural areas. Thus, the 19 domains were stratified into a total of 38 sampling strata. Samples were selected independently in every stratum through a two-stage selection process. Implicit stratifications were achieved at each of the lower geographical or administrative levels by sorting the sampling frame according to geographical/administrative order and by using a probability proportional to size selection strategy at the first stage of selection.

In the first stage, 611 EAs were selected with probability proportional to size. The size of an EA was defined according to the number of households in the EA. Some of the largest EAs (more than 200 households) were further divided into segments; only one segment was selected randomly to be included in the survey. Thus, the 611 CDHS clusters were either an EA or a segment of an EA. A listing of all households was carried out in each of the 611 selected EAs during the months of February through April 2010. Listing teams also drew fresh maps delineating EA boundaries and identifying all households. These maps and lists were used by field teams during data collection. The household listings provided the frame from which households were selected in the second stage. To ensure a sample size large enough to calculate reliable estimates for each study domain, it was necessary to restrict the total number of households selected to 24 in each urban EA and 28 in each rural EA. Small areas and urban areas were oversampled, and this oversampling was corrected in the analysis using sampling weights to ensure the natural representation of the sample for all 38 strata (19 domains by urban or rural area). Appendix A provides a complete description of the sample design and weighting procedures.

All women age 15-49 years who were either usual residents of the selected households or visitors present in the household on the night before the survey were eligible to be interviewed. In addition, in a subsample of every other household selected for the survey, all men age 15-49 were

eligible to be interviewed (if they were either usual residents of the selected households or visitors present in the household on the night before the survey). The minimum sample size was larger for women than men because complex indicators (such as total fertility and infant and child mortality rates) require larger sample sizes to achieve a reasonable level of precision, and these data come from interviews with women.

In the subsample of households chosen for the male interviews (50 percent of the total sample), all women eligible for interview and all children under the age of five were eligible for anemia testing. These same women and children were also eligible for height and weight measurements to determine their nutritional status.

1.5 QUESTIONNAIRES

Three questionnaires were used: the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire. The content of these questionnaires was based on model questionnaires developed by the MEASURE DHS project. Technical meetings between experts and representatives of the Cambodian government and national and international organizations were held to discuss the content of the questionnaires. Input generated from these meetings was used to modify the model questionnaires to reflect the needs of users and relevant population, family planning, and health issues in Cambodia. Final questionnaires were translated from English to Khmer, and a great deal of refinement to the translation was accomplished during the pretest of the questionnaires.

The Household Questionnaire served multiple purposes:

- It was used to list all of the usual members of and visitors to the selected households and was the vehicle for identifying women and men who were eligible for the individual interviews.
- It collected basic information on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household.
- It collected information on characteristics of the household's dwelling unit, ownership of various durable goods, and testing of salt for iodine content.
- It collected anthropometric (height and weight) measurements and hemoglobin levels.
- It had a module on recent illness or death.
- It had a module on utilization of health services.

The Woman's Questionnaire covered a wide variety of topics divided into 11 sections:

- Respondent Background
- Reproduction (including an abortion module)
- Family Planning
- Pregnancy and Postnatal Care
- Immunization, Health, and Children's Nutrition
- Marriage and Sexual Activity
- Fertility Preferences
- Husband's Background and Woman's Work
- HIV/AIDS and Other Sexually Transmitted Infections
- Other Health Problems
- Adult and Maternal Mortality

The Man's Questionnaire was administered to all eligible men age 15-49 living in every second household of the 2010 CDHS sample. The Man's Questionnaire collected information similar to that of the Woman's Questionnaire but was shorter in that it did not contain as detailed a reproductive history and did not include questions on maternal and child health, nutrition, or adult and maternal mortality.

The CDHS underwent a full pretest in May 2010. Twenty-four women and 23 men were trained in the administration of the CDHS survey instruments and blood collection techniques. Training and fieldwork included the Household Questionnaire (not including anthropometry or testing of salt for iodine), the Woman's Questionnaire, and the Man's Questionnaire. The classroom training was followed by five days of field practice and one day of interviewer debriefing. Constructive input from interviewers was used to refine the survey instruments and survey logistics. These pretest activities were used to finalize the questionnaires.

1.6 TRAINING AND FIELDWORK

The goal of training was to create 19 field teams capable of collecting data for the 2010 CDHS. Each team was responsible for data collection in one of the 19 survey domains (comprising the 23 provinces and the Capital City of Phnom Penh). Field teams were each composed of six people: a team leader, a field editor, three female interviewers, and one male interviewer. Nineteen fully staffed field teams would require 114 field personnel, and at the end of training 109 field personnel were retained. Twenty-six days of training included four days of field practice in Kandal province. Data processing personnel (3 data processing supervisors, 10 office editors/coders, 19 data entry operators, and 5 in reserves) also attended classroom training.

Training began with the Household Questionnaire and was followed by the Woman's Questionnaire. Additional time was spent reviewing the Household Questionnaire, including consent statements for hemoglobin testing, and conversion of ages and dates of birth from the Khmer calendar to the Gregorian calendar. One week was devoted to additional activities, including the Man's Questionnaire, measurement of women's and children's height and weight, sample implementation and household selection, testing of household salt for iodine, and organization of documents and materials for return to the head office. After completion of training, including field practice, fieldwork was launched and teams disbursed to their assigned provinces.

During the training period, the 19 CDHS team leaders were provided with the cluster information for the provinces in which they would be working so that they could devise a data collection sequence for their sample points. Team leaders were best equipped to perform this task because they hailed from their own provinces. They also conducted the CDHS household listing operation (described in Appendix A: Sample Implementation) and therefore were well acquainted with the areas in which they would be working. The progression of fieldwork by geographic location had to take into account weather conditions during the rainy season.

Fieldwork supervision was carried out regularly by three CDHS survey coordinators from NIS and MOH along with an ICF Macro consultant. Supervision visits were conducted throughout the six months of data collection and included retrieval of questionnaires from the field. In addition, a quality control program was run by the data processing team to detect key data collection errors for each team. These data checks were used to provide regular feedback to each team based on its specific performance. Data collection was conducted from 23 July 2010 to 20 January 2011.

1.7 DATA PROCESSING

Data entry on 20 personal computers began on 26 August 2010; four weeks after the first interviews were conducted. Data entry personnel attended questionnaire training of interviewers to become familiar with the survey instruments. Data processing personnel included a data processing chief, two assistants, 20 entry operators, and nine office editors. Completed questionnaires were delivered from the field by survey coordinators, and questionnaires were logged by the office editors. Questionnaire data were entered at NIS using CSPro, a program developed jointly by the United States Census Bureau, the ICF Macro MEASURE DHS program, and Serpro S.A. All questionnaires were entered twice to minimize data entry error. Data entry was completed on 5 February 2011. Internal consistency verification and secondary editing were completed on 25 February 2011.

1.8 SAMPLE COVERAGE

All of the 611 clusters selected for the sample were surveyed in the 2010 CDHS. A total of 16,344 households were selected, of which 15,829 were found to be occupied during data collection. Among these households, 15,667 completed the Household Questionnaire, yielding a response rate of 99 percent (Table 1.1).

In these interviewed households, 19,237 women were identified as eligible for the individual interview. Interviews were completed with 98 percent of these women. Of the 8,665 eligible men identified in every other household, 95 percent were successfully interviewed. There was little variation in response rates by urban-rural residence.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Cambodia 2010

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	4,584	11,760	16,344
Households occupied	4,435	11,394	15,829
Households interviewed	4,385	11,282	15,667
Household response rate	98.9	99.0	99.0
Individual interviews: women			
Number of eligible women	6,228	13,009	19,237
Number of eligible women interviewed	6,077	12,677	18,754
Eligible women response rate	97.6	97.4	97.5
Individual interviews: men			
Number of eligible men	2,722	5,943	8,665
Number of eligible men interviewed	2,606	5,633	8,239
Eligible men response rate	95.7	94.8	95.1

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS 2

This chapter summarizes the socioeconomic characteristics of households and respondents surveyed, including age, sex, residence (urban-rural), educational status, household facilities, and household characteristics. The profile of the households provided in this chapter will help in understanding the results of the 2010 Cambodia Demographic and Health Survey (CDHS) in the following chapters. In addition, it may provide useful information for social and economic development planning.

Throughout this report, numbers in the tables reflect weighted numbers. Due to the way the sample was designed, the number of weighted cases in some regions appears small, because they are weighted to make the regional distribution nationally representative. However, roughly the same number of households and women and men were interviewed in each province or group of provinces, and the number of unweighted cases is always large enough to calculate the presented estimates. Estimates based on an insufficient number of cases are shown in parentheses or not shown at all.

The 2010 CDHS collected information from all usual residents of a selected household (*de jure* population) and persons who had stayed in the selected household the night before the interview (*de facto* population). Although the difference between these two populations is small, to avoid double counting all tables in this report refer to the de facto population unless otherwise specified. The CDHS used the same definition of households as the 2008 census conducted by the National Institute of Statistics. A household was defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as the head of the household, and who have common arrangements for cooking and eating meals.

2.1 CHARACTERISTICS OF THE HOUSEHOLD POPULATION

2.1.1 Age and Sex Composition

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

The survey collected information on age in completed years for each household member. When the age was not known, interviewers inquired further for dates of birth in the Gregorian calendar, the Khmer calendar, and a historical calendar. Age was then calculated using conversion charts specifically designed for this purpose.

Table 2.1 presents the percent distribution of the household population by age, according to urban-rural residence and sex. The population spending the night before the survey in the households selected for the survey included 71,584 individuals, of whom 48 percent were males and 52 percent were females.

The age structure of the household population is typical of a society with a young population and recently declining fertility. The sex and age distribution of the population is also shown in the population pyramid in Figure 2.1. Cambodia has a relatively broad-based pyramid structure because 45 percent of the population is under 20 years of age.

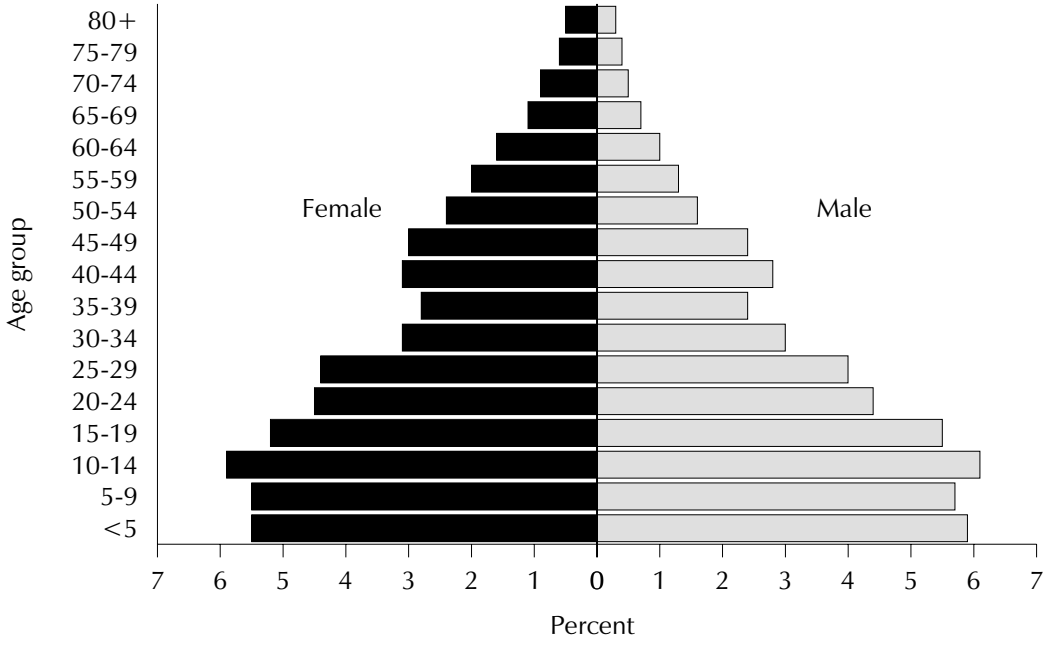
Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Cambodia 2010

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	10.0	8.8	9.4	12.7	10.9	11.8	12.2	10.5	11.3
5-9	9.6	8.0	8.8	12.3	11.0	11.7	11.8	10.5	11.1
10-14	9.7	8.9	9.2	13.5	11.9	12.7	12.8	11.4	12.1
15-19	11.5	11.4	11.5	11.4	9.6	10.4	11.4	9.9	10.6
20-24	12.4	11.5	11.9	8.4	7.9	8.2	9.2	8.6	8.8
25-29	10.8	10.4	10.6	7.9	8.1	8.0	8.4	8.5	8.5
30-34	7.1	6.4	6.7	6.0	5.9	5.9	6.2	6.0	6.1
35-39	4.8	5.3	5.1	4.9	5.4	5.2	4.9	5.4	5.2
40-44	6.4	5.9	6.1	5.7	6.1	5.9	5.8	6.0	5.9
45-49	5.2	6.0	5.6	4.9	5.6	5.3	5.0	5.7	5.4
50-54	4.1	5.1	4.6	3.3	4.6	3.9	3.4	4.7	4.1
55-59	3.0	3.8	3.4	2.7	3.9	3.3	2.7	3.9	3.3
60-64	2.2	2.9	2.6	2.2	3.0	2.6	2.2	3.0	2.6
65-69	1.2	1.9	1.6	1.4	2.2	1.8	1.4	2.1	1.8
70-74	1.1	1.8	1.5	1.1	1.7	1.4	1.1	1.7	1.4
75-79	0.5	1.0	0.8	0.8	1.2	1.0	0.8	1.2	1.0
80 +	0.4	0.7	0.6	0.8	1.0	0.9	0.7	0.9	0.8
Don't know/missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,156	6,881	13,037	28,162	30,382	58,547	34,318	37,263	71,584

Note: Total includes 1 person whose sex was not stated.

Figure 2.1 Population Pyramid



CDHS 2010

Above the age of 10 years, the pyramid follows a typical pattern of decreasing numbers as age increases. However, the percentage of people age 30 to 39 is less than would be expected because these are the two age groups born in the decade of the 1970s. The early 1970s saw escalating civil war, and in the late 1970s the Khmer Rouge ruled. This period of time was characterized by few births and high infant and child mortality.

Cambodia has a large dependent population of children and adolescents, although with decreasing fertility the proportion of the population under age 15 has recently declined. The proportion of those ages 50 or older has slightly increased. Table 2.2 shows that children under age 15

account for 35 percent of the population. Sixty-one percent of the population is in the 15-64 age group, and 5 percent are age 65 or older.

Table 2.2 Population by age according to selected sources

Percent distribution of the de facto population by age group, according to selected sources, Cambodia 2010

Age	1998 census[1]	2000 CDHS[2]	2004 CIPS[3]	2005 CDHS[4]	2008 census[5]	2010 CDHS
<15	42.8	42.7	38.6	38.9	33.7	34.5
15-49	46.9	46.3	49.5	47.9	53.4	50.5
50-64	6.8	7.4	8.0	8.6	8.6	10.0
65+	3.5	3.6	3.9	4.6	4.3	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

[1] General Population Census of Cambodia, 1998 (National Institute of Statistics, 1999)
[2] Cambodia Demographic and Health Survey, 2000 (National Institute of Statistics and ORC Macro, 2001)
[3] Cambodia Inter-Censal Population Survey, 2004 (National Institute of Statistics, 2004)
[4] Cambodia Demographic and Health Survey, 2005 (National Institute of Statistics and ORC Macro, 2006)
[5] General Population Census of Cambodia, 2008 (National Institute of Statistics, 2009)

2.1.2 Household Composition

Table 2.3 shows the distribution of households in the survey by the sex of the head of the household, the number of household members, and urban and rural residence. Households in Cambodia are predominantly male-headed. However, 27 percent of households are headed by women (28 and 27 percent in urban and rural areas, respectively).

The average household size is 4.7 persons, smaller than the 5.0 persons per household observed in the 2005 CDHS. Urban households have 5.0 persons per household on average and are slightly larger than rural households (4.7 persons). Households with six or more members are more common in urban areas (36 percent) than in rural areas (30 percent).

Table 2.3 Household composition

Percent distribution of households by sex of head of household and by household size; and mean size of household, according to residence, Cambodia 2010

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	72.2	73.1	72.9
Female	27.8	26.9	27.1
Total	100.0	100.0	100.0
Number of usual members			
0	0.0	0.0	0.0
1	2.4	2.9	2.8
2	8.8	7.8	8.0
3	13.9	16.4	16.0
4	21.1	22.7	22.4
5	17.8	20.3	19.9
6	14.6	13.8	13.9
7	9.2	7.9	8.2
8	5.1	4.5	4.6
9+	7.1	3.6	4.2
Total	100.0	100.0	100.0
Mean size of households	5.0	4.7	4.7
Number of households	2,652	13,015	15,667

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

2.2 Education of the Household Population

Many behaviors, including those in the realms of reproduction, contraceptive use, child health, and proper hygiene, are affected by the education of household members. Information on the educational level of the male and female population age 6 and above is presented in Tables 2.4.1 and 2.4.2. Survey results show that although the majority of Cambodians have not completed primary school, the country has experienced strong improvement in educational attainment over time. Overall, 21 percent of females have never attended school, as compared with 11 percent of males. Improvements over time have resulted in only 3 percent each of girls and boys age 10-14 having never attended school at all.

Table 2.4.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed and median grade completed, according to background characteristics, Cambodia 2010

Background characteristic	No schooling	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	16.7	83.3	0.0	0.0	0.0	0.0	0.0	100.0	3,136	0.4
10-14	2.5	69.0	3.2	25.3	0.0	0.0	0.0	100.0	4,235	3.7
15-19	4.0	23.4	9.6	60.0	0.6	2.3	0.0	100.0	3,697	6.8
20-24	9.7	31.2	11.5	34.2	5.3	8.1	0.1	100.0	3,187	5.8
25-29	15.6	44.4	9.3	22.0	4.2	4.4	0.1	100.0	3,182	4.2
30-34	21.4	48.2	6.7	19.0	3.0	1.8	0.0	100.0	2,224	3.4
35-39	19.7	49.3	6.1	20.8	2.7	1.3	0.0	100.0	2,020	3.4
40-44	21.9	52.3	5.0	17.9	1.8	0.9	0.1	100.0	2,251	2.9
45-49	34.2	53.4	2.5	8.3	0.6	0.8	0.2	100.0	2,126	1.6
50-54	35.6	51.4	3.9	7.4	1.0	0.4	0.4	100.0	1,745	1.6
55-59	35.8	49.0	4.3	8.8	1.0	0.7	0.5	100.0	1,445	1.7
60-64	44.1	44.3	3.0	6.7	1.3	0.2	0.4	100.0	1,118	0.9
65+	75.5	19.2	1.7	2.8	0.3	0.3	0.3	100.0	2,200	0.0
Don't know/missing	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2	0.0
Residence										
Urban	11.7	38.2	5.7	31.2	5.2	7.9	0.1	100.0	6,154	5.0
Rural	23.6	50.6	5.4	18.8	0.9	0.5	0.1	100.0	26,413	2.5
Province										
Banteay Mean Chey	22.3	53.3	4.6	17.6	1.4	0.9	0.0	100.0	1,341	2.2
Kampong Cham	25.3	47.1	7.0	18.7	1.0	0.9	0.1	100.0	3,765	2.7
Kampong Chhnang	20.1	57.1	5.9	15.4	0.9	0.5	0.0	100.0	1,280	2.3
Kampong Speu	16.5	51.0	5.6	25.2	1.1	0.7	0.0	100.0	1,809	3.4
Kampong Thom	24.8	52.2	4.7	16.4	1.1	0.8	0.0	100.0	1,659	2.1
Kandal	17.6	47.1	6.3	26.4	1.6	0.9	0.0	100.0	3,272	3.5
Kratie	22.0	51.1	5.8	19.1	1.7	0.4	0.0	100.0	771	2.6
Phnom Penh	8.8	36.0	5.3	32.1	6.2	11.6	0.0	100.0	3,272	5.8
Prey Veng	25.4	53.0	5.0	15.5	0.8	0.3	0.0	100.0	2,468	2.5
Pursat	22.2	52.1	4.5	18.4	1.3	1.6	0.0	100.0	996	2.3
Siem Reap	22.6	52.5	5.4	15.7	2.1	1.0	0.6	100.0	2,108	2.3
Svay Rieng	26.7	48.8	3.8	19.4	0.9	0.4	0.0	100.0	1,314	2.4
Takeo	22.3	49.1	6.4	20.2	0.9	1.0	0.0	100.0	2,206	2.7
Otdar Mean Chey	25.7	52.0	4.4	16.8	0.7	0.3	0.0	100.0	433	2.2
Battambang/Pailin	21.0	46.8	5.4	24.5	1.1	1.0	0.4	100.0	2,358	3.0
Kampot/Kep	21.1	46.2	5.7	24.6	1.3	0.6	0.4	100.0	1,609	2.9
Preah Sihanouk/Koh Kong	26.7	42.3	4.1	23.2	1.5	2.1	0.0	100.0	713	2.7
Preah Vihear/Steung Treng	29.0	50.7	4.2	13.9	0.8	0.5	0.8	100.0	733	1.7
Mondol Kiri/Rattanak Kiri	44.4	39.2	3.8	11.7	0.6	0.2	0.1	100.0	459	0.2
Wealth quintile										
Lowest	33.0	55.0	4.3	7.5	0.0	0.0	0.1	100.0	6,265	1.2
Second	26.5	54.7	5.5	12.7	0.3	0.1	0.2	100.0	6,389	2.0
Middle	22.3	52.0	5.7	18.8	0.7	0.3	0.2	100.0	6,408	2.7
Fourth	16.7	45.9	6.4	28.5	1.7	0.7	0.0	100.0	6,595	3.7
Highest	9.7	34.9	5.5	36.6	5.4	7.9	0.1	100.0	6,910	5.8
Total	21.4	48.2	5.5	21.2	1.7	1.9	0.1	100.0	32,567	2.9

[1] Completed grade 6 at the primary level
[2] Completed grade 12 at the secondary level

Table 2.4.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median grade completed, according to background characteristics, Cambodia 2010

Background characteristic	No schooling	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	18.4	81.6	0.0	0.0	0.0	0.0	0.0	100.0	3,202	0.2
10-14	3.1	75.2	2.5	19.2	0.0	0.0	0.0	100.0	4,396	3.3
15-19	2.9	25.4	8.4	60.2	0.9	2.1	0.0	100.0	3,912	6.6
20-24	6.1	27.2	9.7	40.5	5.1	11.3	0.1	100.0	3,141	6.6
25-29	9.6	34.0	8.0	32.4	6.5	9.2	0.3	100.0	2,885	5.8
30-34	11.2	35.0	7.4	33.1	6.9	6.1	0.3	100.0	2,129	5.5
35-39	11.7	34.6	8.6	32.9	7.0	4.8	0.4	100.0	1,687	5.4
40-44	10.8	34.5	5.8	35.1	7.2	6.1	0.5	100.0	1,993	5.7
45-49	17.3	48.4	5.4	21.7	3.4	3.2	0.6	100.0	1,711	3.2
50-54	18.6	51.3	6.6	16.7	3.2	2.3	1.3	100.0	1,169	2.9
55-59	16.2	43.3	9.0	22.2	4.7	2.7	1.9	100.0	934	4.0
60-64	13.8	44.1	13.0	21.9	3.8	2.7	0.7	100.0	746	4.0
65+	30.3	41.5	8.6	16.0	1.5	0.9	1.2	100.0	1,359	2.7
Don't know/missing	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1	0.0
Residence										
Urban	4.8	30.1	5.0	35.3	8.5	16.0	0.3	100.0	5,413	7.0
Rural	12.1	49.7	6.7	27.7	2.2	1.3	0.4	100.0	23,852	3.7
Province										
Banteay Mean Chey	13.0	51.6	5.3	25.8	2.7	1.4	0.1	100.0	1,088	3.4
Kampong Cham	16.1	47.1	7.2	26.8	1.6	1.1	0.1	100.0	3,457	3.6
Kampong Chhnang	11.5	54.1	8.0	22.4	2.8	1.3	0.0	100.0	1,245	3.3
Kampong Speu	7.4	45.5	6.8	35.5	2.8	2.0	0.0	100.0	1,613	4.7
Kampong Thom	17.5	50.5	5.9	21.6	2.6	1.5	0.3	100.0	1,486	3.1
Kandal	5.7	43.4	7.1	37.3	3.7	2.8	0.0	100.0	2,854	5.1
Kratie	12.2	50.8	8.3	24.1	3.9	0.8	0.0	100.0	677	3.5
Phnom Penh	3.4	25.4	4.2	34.5	9.4	23.2	0.0	100.0	2,915	8.2
Prey Veng	9.5	50.6	6.7	29.8	2.4	1.0	0.0	100.0	2,137	3.9
Pursat	11.7	52.2	6.0	24.7	3.0	2.2	0.1	100.0	973	3.5
Siem Reap	14.3	51.8	5.9	21.9	3.1	1.8	1.1	100.0	1,846	3.0
Svay Rieng	12.3	48.4	4.4	31.0	2.7	1.3	0.0	100.0	1,154	4.0
Takeo	7.9	46.1	7.7	33.1	2.3	2.8	0.1	100.0	2,036	4.6
Otdar Mean Chey	14.6	53.5	6.1	22.2	2.7	0.9	0.0	100.0	433	3.2
Battambang/Pailin	9.0	44.5	7.2	31.2	3.2	2.8	2.1	100.0	2,158	4.5
Kampot/Kep	6.7	49.1	7.2	30.9	2.8	2.5	0.7	100.0	1,387	4.4
Preah Sihanouk/Koh Kong	13.1	45.4	4.0	29.6	3.1	4.8	0.0	100.0	671	4.1
Preah Vihear/Steung Treng	19.0	54.6	3.9	17.8	1.9	1.1	1.7	100.0	670	2.4
Mondol Kiri/Rattanak Kiri	26.6	48.9	5.3	16.9	1.4	0.8	0.1	100.0	467	1.8
Wealth quintile										
Lowest	21.8	57.4	6.0	13.9	0.4	0.0	0.4	100.0	5,417	2.1
Second	13.3	57.5	6.7	20.9	1.0	0.3	0.3	100.0	5,732	3.1
Middle	10.7	49.0	7.4	30.2	1.6	0.8	0.4	100.0	5,964	4.0
Fourth	6.5	41.5	6.9	39.1	3.7	1.9	0.4	100.0	5,980	5.2
Highest	2.8	27.2	4.8	39.3	9.5	16.2	0.3	100.0	6,173	7.6
Total	10.7	46.1	6.4	29.1	3.4	4.0	0.3	100.0	29,266	4.2

[1] Completed grade 6 at the primary level
[2] Completed grade 12 at the secondary level

Forty-eight percent of females and 46 percent of males in the household population have had some primary schooling without having completed primary school. However, 37 percent of the male population has gone on to attend secondary or higher schooling, whereas only 25 percent of females have had secondary or higher schooling. Approximately three of five males and females age 15-19 have gone on to secondary school. About 57 percent of males and 48 percent of females age 20-24 have done so. As would be expected, higher percentages of males and females in urban areas have gone on to secondary schooling than have males and females in rural areas. There is a great deal of regional variation in educational attainment across provinces. The outliers are Mondol Kiri/Rattanak Kiri and Phnom Penh, where 27 percent and 3 percent of males, respectively, and 44 percent and 9 percent of females, respectively, have never been to school.

2.2.1 School Attendance Ratios

Data on net attendance ratios (NARs) and gross attendance ratios (GARs) by school level, sex, residence, and province are shown in Table 2.5. The NAR indicates participation in primary schooling for the population age 6-12 and secondary schooling for the population age 13-18. The GAR measures participation at each level of schooling among those age 6-24. The GAR is nearly always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level. A NAR of 100 percent would indicate that all of those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling. Overage participation for a given level of schooling occurs when students start school earlier, repeat one or more grades, or drop out of school and later return.

Table 2.5 School attendance ratios

Net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population by sex and level of schooling; and gender parity index (GPI), according to background characteristics, Cambodia 2010

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender parity index	Male	Female	Total	Gender parity index[3]
	PRIMARY SCHOOL							
Residence								
Urban	85.5	84.5	85.0	0.99	99.1	91.9	95.5	0.93
Rural	84.6	85.0	84.8	1.01	103.1	98.4	100.7	0.95
Province								
Banteay Mean Chey	82.6	82.9	82.8	1.00	94.3	91.7	92.9	0.97
Kampong Cham	82.3	86.7	84.4	1.05	93.1	95.6	94.2	1.03
Kampong Chhnang	88.5	89.4	88.9	1.01	112.5	107.5	110.2	0.96
Kampong Speu	89.2	89.1	89.2	1.00	107.0	101.3	104.1	0.95
Kampong Thom	80.1	80.8	80.4	1.01	100.5	101.4	100.9	1.01
Kandal	86.2	82.5	84.4	0.96	104.0	89.2	96.6	0.86
Kratie	82.1	79.5	80.7	0.97	94.6	89.5	91.9	0.95
Phnom Penh	84.8	85.3	85.0	1.01	99.3	94.5	97.0	0.95
Prey Veng	87.1	86.0	86.6	0.99	102.6	95.5	99.1	0.93
Pursat	79.9	82.7	81.2	1.04	101.8	104.0	102.8	1.02
Siem Reap	84.8	85.8	85.3	1.01	103.9	98.7	101.2	0.95
Svay Rieng	90.7	91.8	91.2	1.01	105.9	104.7	105.3	0.99
Takeo	85.3	84.9	85.1	1.00	108.6	97.8	103.2	0.90
Otdar Mean Chey	89.7	89.6	89.7	1.00	111.1	106.1	108.7	0.95
Battambang/Pailin	83.0	86.9	85.0	1.05	107.5	103.2	105.2	0.96
Kampot /Kep	89.9	85.3	87.7	0.95	104.1	94.5	99.5	0.91
Preah Sihanouk/Koh Kong	85.8	82.6	84.2	0.96	99.8	96.4	98.1	0.97
Preah Vihear/Steung Treng	82.3	81.5	81.9	0.99	106.6	102.2	104.4	0.96
Mondol Kiri/Rattanak Kiri	65.4	62.1	63.8	0.95	103.2	86.4	95.3	0.84
Wealth quintile								
Lowest	77.6	81.1	79.3	1.05	95.1	97.1	96.1	1.02
Second	84.4	86.4	85.4	1.02	103.9	98.8	101.4	0.95
Middle	87.5	85.6	86.5	0.98	107.6	101.7	104.7	0.95
Fourth	89.2	88.7	88.9	0.99	106.5	98.6	102.6	0.93
Highest	88.1	83.9	86.0	0.95	101.3	89.2	95.2	0.88
Total	84.7	84.9	84.8	1.00	102.5	97.4	100.0	0.95

Continued…

Table 2.5—*Continued*

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender parity index	Male	Female	Total	Gender parity index[3]
	SECONDARY SCHOOL							
Residence								
Urban	62.4	54.3	58.2	0.87	80.8	68.0	74.2	0.84
Rural	41.5	41.1	41.3	0.99	50.8	49.1	50.0	0.97
Province								
Banteay Mean Chey	48.5	39.7	43.5	0.82	57.7	52.3	54.7	0.91
Kampong Cham	50.1	46.6	48.4	0.93	59.2	54.7	57.1	0.92
Kampong Chhnang	35.0	38.1	36.3	1.09	42.1	44.7	43.2	1.06
Kampong Speu	50.1	44.6	47.3	0.89	58.6	52.0	55.2	0.89
Kampong Thom	33.0	34.6	33.7	1.05	41.8	40.8	41.3	0.97
Kandal	46.7	46.4	46.5	0.99	57.7	55.2	56.5	0.96
Kratie	33.7	34.5	34.2	1.02	44.2	42.2	43.1	0.96
Phnom Penh	64.3	53.8	58.8	0.84	87.9	66.0	76.4	0.75
Prey Veng	48.1	43.7	46.2	0.91	57.3	50.8	54.5	0.89
Pursat	33.5	37.1	35.2	1.11	42.7	44.0	43.4	1.03
Siem Reap	32.4	37.5	35.0	1.16	44.2	48.3	46.3	1.09
Svay Rieng	49.5	48.7	49.1	0.98	59.4	56.9	58.2	0.96
Takeo	51.4	47.9	49.7	0.93	63.2	56.4	60.1	0.89
Otdar Mean Chey	27.1	32.2	29.6	1.19	34.5	38.0	36.3	1.10
Battambang/Pailin	40.4	39.7	40.1	0.98	47.7	49.3	48.4	1.03
Kampot/Kep	50.1	58.6	54.4	1.17	64.3	72.0	68.2	1.12
Preah Sihanouk/Koh Kong	50.9	45.2	48.0	0.89	60.7	56.1	58.4	0.92
Preah Vihear/Steung Treng	27.9	29.8	28.8	1.07	36.0	38.4	37.2	1.07
Mondol Kiri/Rattanak Kiri	20.9	21.3	21.1	1.02	28.3	24.0	26.3	0.85
Wealth quintile								
Lowest	20.1	20.2	20.2	1.01	24.4	23.8	24.1	0.98
Second	30.1	34.3	32.1	1.14	37.7	39.8	38.7	1.06
Middle	44.7	42.6	43.8	0.95	54.0	51.1	52.7	0.95
Fourth	57.2	52.1	54.7	0.91	70.0	63.4	66.7	0.91
Highest	69.1	62.7	65.8	0.91	89.0	77.5	83.1	0.87
Total	44.9	43.6	44.3	0.97	55.7	52.6	54.2	0.94

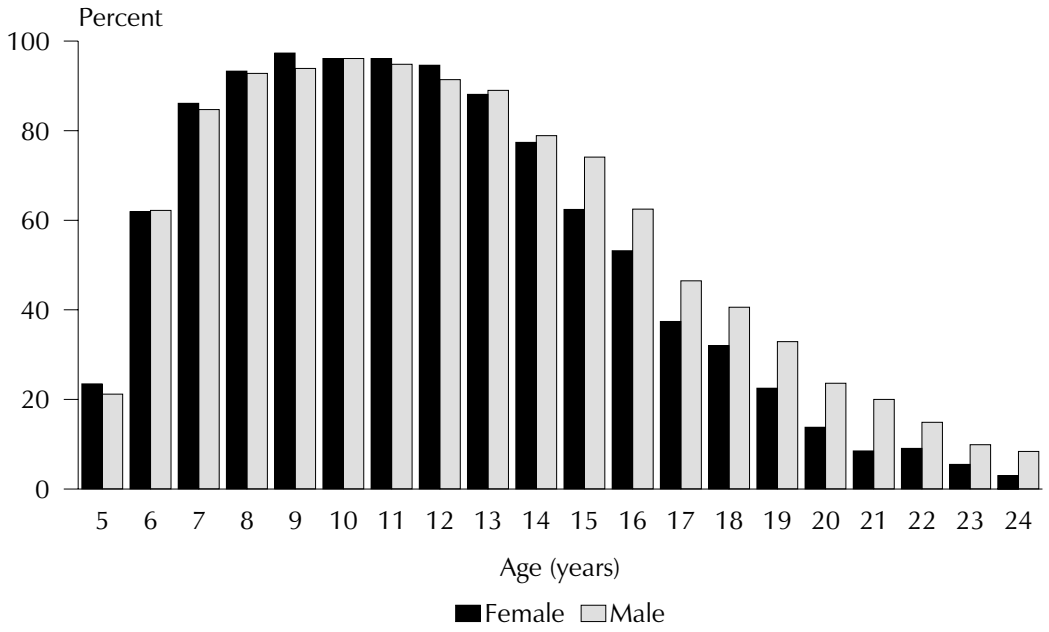
[1] The NAR for primary school is the percentage of the primary school age (6-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary school age (13-18 years) population that is attending secondary school. By definition the NAR cannot exceed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

Of those children who should be attending primary school, 85 percent are currently doing so. In 2005, 77 percent of children who should have been attending primary school were doing so. The NAR is significantly lower at the secondary school level but has improved since 2005 as well. Forty-four percent of secondary school age youths are in school at that level, an increase from 28 percent in 2005. Similar to 2005, there is little difference between the NAR of males and females at both the primary and the secondary level.

Table 2.5 also shows the gender parity index (GPI) for primary and secondary school. The GPI for primary school is the ratio of the primary school NAR/GAR for females to the NAR/GAR for males. The GPI for secondary school is the ratio of the secondary school NAR/GAR for females to the NAR/GAR for males. The primary school GPI for NAR of 1.00 indicates gender parity at the primary level in both urban and rural areas. The GPI for NAR of 0.97 at the secondary school level indicates near gender parity at the secondary level. The GPI for NAR in urban areas of 0.87 reflects the fact that smaller proportions of girls than boys attend secondary school, and the measure of gender parity varies across provinces far more greatly at the secondary school level than at the primary school level. The primary school GPI for GAR and the secondary school GPI for GAR follow patterns of the GPI for NAR.

Figure 2.2 illustrates age-specific attendance rates, the percentage of a given age cohort attending school regardless of the level attended (primary, secondary, or higher). Although the minimum age for schooling in Cambodia is 6 years, some children enroll prior to this age, and only three in every five children 6 years of age are attending school.

Figure 2.2 Age-specific Attendance Rates



CDHS 2010

Similar to 2005, boys and girls attend school in about equal proportions up to and including age 14. Up to and including age 10, the proportion of girls attending school is slightly higher than for boys, and then it is slightly lower than for boys up to age 14. It is after age 14 that boys attend school at a noticeably higher proportion than girls.

2.3 HOUSING CHARACTERISTICS

Types of water sources and sanitation facilities are important determinants of the health status of household members and particularly of children. Proper hygienic and sanitation practices can reduce exposure to and the seriousness of major childhood diseases such as diarrhea. The CDHS asked respondents about the household source of drinking water, the time required round trip to obtain that water, and the type of sanitation facility used by the household. In Cambodia, the source of drinking water can vary between the dry season and the rainy season, so separate questions were asked for the different seasons. If households had more than one source of drinking water, respondents were asked to identify the most commonly used source.

2.3.1 Water Supply

Table 2.6 shows that sources of drinking water were the same during the dry and rainy seasons for 85 percent of urban households and 64 percent of rural households. The source of drinking water is an indicator of whether it is suitable for drinking. Sources which are considered likely to be of suitable quality are listed under "Improved source" and those that may not be of suitable quality are listed under "Non-improved source," reflecting the categorizations proposed by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and the Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

During the dry season, 40 percent of households in Cambodia consume drinking water from a non-improved source. This percentage declines to 20 percent of households during the rainy season, when more households utilize rainwater for drinking water. The main source of drinking water during the rainy season is rainwater for more than one-third of households. Rainwater is the most common source of drinking water during the rainy season for rural households and for urban households that do not have water piped into their dwelling or property.

Even if water is not piped directly into the dwelling or yard, it is common for the source of water to be on the household premises, especially during the rainy season. Eighty-five percent of urban households and nearly three-quarters of rural households report that their source of drinking water during the rainy season is located on the household premises. During the dry season, the percentage of households with their source of drinking water on the premises declines to 77 percent and 49 percent among urban and rural households, respectively. For those households neither having a source of drinking water on the premises nor having water delivered, the majority is within a 30 minutes or less in round trip time of obtaining it. During the dry season only about 9 percent of households are 30 minutes or longer away from a source (or don't know the time required), and during the rainy season that number drops to just over 3 percent requiring 30 minutes or more (or not knowing the time required).

Table 2.6 Household drinking water

Percent distribution of households and de jure population by source, time to collect, and percentage using various modes to treat drinking water, according to residence, Cambodia 2010

	Households			Population
Characteristic	Urban	Rural	Total	Total
Source of drinking water during dry season				
Improved source	87.0	53.1	58.8	58.3
Piped water into dwelling/yard/plot	57.2	5.3	14.1	14.7
Public tap/standpipe	1.0	0.3	0.4	0.5
Tube well or borehole	11.4	35.5	31.4	30.5
Protected dug well	1.7	3.6	3.3	3.3
Protected spring	0.1	0.4	0.4	0.4
Rainwater	5.2	7.3	6.9	6.6
Bottled water	10.5	0.6	2.3	2.3
Non-improved source	10.4	45.6	39.7	40.1
Unprotected dug well	2.7	17.2	14.7	14.9
Unprotected spring	0.1	1.0	0.8	0.9
Tanker truck/cart with small tank	4.4	4.4	4.4	4.4
Surface water	3.2	23.1	19.7	19.8
Other	2.5	1.3	1.5	1.6
Total	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip) during dry season				
Water on premises	76.8	49.3	54.0	54.3
Less than 30 minutes	19.4	41.0	37.4	36.8
30 minutes or longer	1.4	7.5	6.5	6.6
Don't know/missing	2.4	2.2	2.2	2.2
Total	100.0	100.0	100.0	100.0
Source of drinking water during rainy season				
Improved source	94.1	76.0	79.1	78.6
Piped water into dwelling/yard/plot	54.0	3.8	12.3	12.9
Public tap/standpipe	0.6	0.2	0.3	0.3
Tube well or borehole	9.6	27.9	24.8	24.0
Protected dug well	1.3	2.5	2.3	2.4
Protected spring	0.0	0.3	0.3	0.3
Rainwater	19.5	40.8	37.2	36.8
Bottled water[1]	9.0	0.4	1.9	1.8
Non-improved source	4.2	23.2	20.0	20.5
Unprotected dug well	1.8	12.9	11.0	11.1
Unprotected spring	0.1	0.9	0.8	0.8
Tanker truck/cart with small tank	1.5	1.0	1.1	1.2
Surface water	0.9	8.5	7.2	7.5
Other	1.6	0.6	0.8	0.8
Total	100.0	100.0	100.0	100.0

Continued…

Table 2.6—*Continued*

Characteristic	Households			Population
	Urban	Rural	Total	Total
Time to obtain drinking water (round trip) during rainy season				
Water on premises	84.9	73.5	75.4	75.7
Less than 30 minutes	12.8	23.1	21.3	20.9
30 minutes or longer	0.5	2.2	1.9	1.9
Don't know/missing	1.8	1.2	1.3	1.4
Total	100.0	100.0	100.0	100.0
Percentage using same water within dry and rainy season[2]	**85.4**	**64.4**	**68.0**	**68.0**
Boiled	75.0	65.1	66.8	66.4
Bleach/chlorine	0.0	0.1	0.1	0.1
Strained through cloth	1.0	1.2	1.2	1.2
Ceramic, sand, or other filter	13.0	10.2	10.7	11.1
Solar disinfection	0.4	0.1	0.1	0.2
Stand and settle	2.9	4.2	3.9	4.1
Other	0.4	0.3	0.3	0.3
No treatment	16.2	26.5	24.8	25.0
Percentage using an appropriate treatment method[3]	83.4	72.5	74.3	74.1
Number	2,652	13,015	15,667	74,416

[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.

Sixty-five percent of rural households boil their water prior to drinking, and three-quarters of urban households do so. Among those who do not boil their water, the most common action is to do nothing to treat the water prior to drinking. Approximately one-fourth of rural (27 percent) and one-sixth of urban (16 percent) households report that they do nothing to treat their drinking water before consuming it. Overall, a quarter of households do nothing to treat their water prior to drinking. Eleven percent of households use a ceramic, sand, or other type of filter to filter their water prior to drinking.

2.3.2 Sanitation Facilities

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

Table 2.7 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Cambodia 2010

Type of toilet/latrine facility	Households			Population
	Urban	Rural	Total	Total
Improved, not shared facility				
Flush/pour flush to piped sewer system	37.3	0.2	6.5	7.0
Flush/pour flush to septic tank	39.4	22.0	24.9	26.0
Flush/pour flush to pit latrine	0.7	0.9	0.8	0.9
Ventilated improved pit (VIP) latrine	0.1	0.1	0.1	0.1
Pit latrine with slab	0.3	1.4	1.2	1.3
Composting toilet	0.0	0.1	0.1	0.1
Non-improved facility				
Any facility shared with other households	9.4	7.1	7.5	7.0
Flush/pour flush not to sewer/septic tank/pit latrine	0.1	0.2	0.2	0.2
Pit latrine without slab/open pit	0.0	0.3	0.2	0.3
Bucket	0.0	0.4	0.3	0.3
Hanging toilet/hanging latrine	0.4	1.1	1.0	1.0
No facility/bush/field	11.9	65.9	56.7	55.3
Other	0.2	0.3	0.3	0.3
Missing	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0
Number	2,652	13,015	15,667	74,416

Households vary greatly in access to hygienic facilities by urban and rural residence, as shown in Table 2.7. The majority of households in rural areas have no toilet facility, with two in three households reporting no toilet facility and making use of fields or bush areas. In urban areas, one in eight households has no toilet facility; however, 77 percent of urban households use a flush or pour toilet that is piped to a sewer or septic system.

Table 2.8 presents the distribution of households by the characteristics of the dwelling in which they live. In urban areas 9 of 10 households live in dwellings with electricity, whereas in rural areas only one in every five households has electricity. Ceramic tiles are the most common type of flooring material in urban areas, and wood planks are the most common material in rural areas. Forty-one percent of urban households live in dwellings with ceramic tiles, followed by 28 percent who live in dwellings with wood planks. In rural areas, approximately half of households live in dwellings with wood plank flooring, followed by one-third who live in dwellings with palm or bamboo flooring. If there was more than one type of flooring, interviewers recorded the predominant flooring material. Eight of 10 rural households sleep together in one room, whereas about half of urban households do so. In urban areas, 53 percent of households use two or more rooms for sleeping.

2.3.3 Cooking Arrangements

Firewood is the most common source of fuel for cooking in rural areas, with 9 in 10 rural households using firewood for this purpose. There is more variability in urban areas as to what is used for cooking fuel. Twenty-eight percent of urban households use firewood, 49 percent use liquid petroleum gas, and 21 percent use charcoal. Sixty-five percent of urban households and 38 percent of rural households report that they do their cooking in the house.

Table 2.8 Household characteristics

Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking according to residence, Cambodia 2010

	Households			Population
Housing characteristic	Urban	Rural	Total	Total
Electricity				
Yes	91.3	18.8	31.1	32.2
No	8.6	81.2	68.9	67.8
Missing	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0
Flooring material				
Earth, sand	3.8	7.5	6.9	6.2
Wood/planks	27.7	48.4	44.9	46.8
Palm/bamboo	5.1	32.7	28.0	26.6
Parquet or polished wood	0.2	0.2	0.2	0.3
Vinyl or asphalt strips	0.1	0.1	0.1	0.1
Ceramic tiles	40.9	3.6	9.9	10.7
Cement tiles	7.5	1.6	2.6	2.5
Cement	14.6	5.5	7.1	6.7
Floating house	0.0	0.2	0.2	0.2
Other	0.2	0.1	0.1	0.2
Total	100.0	100.0	100.0	100.0
Rooms used for sleeping				
One	47.1	79.1	73.7	70.8
Two	28.4	16.1	18.2	19.4
Three or more	24.4	4.5	7.8	9.4
Missing	0.1	0.3	0.3	0.3
Total	100.0	100.0	100.0	100.0
Cooking fuel				
Electricity	1.3	0.1	0.3	0.3
Liquid petroleum gas	49.1	2.9	10.7	10.7
Biogas	1.1	0.5	0.6	0.6
Coal/lignite	0.0	0.0	0.0	0.0
Charcoal	20.5	5.7	8.2	8.7
Wood	27.6	90.1	79.5	79.3
Straw/shrubs/grass	0.0	0.0	0.0	0.0
Agricultural crop	0.0	0.0	0.0	0.0
Animal dung	0.0	0.2	0.2	0.2
No food cooked in household	0.2	0.2	0.2	0.1
Other	0.1	0.2	0.2	0.1
Total	100.0	100.0	100.0	100.0
Place for cooking				
In the house	64.8	37.8	42.3	41.7
In a separate building	13.2	32.3	29.1	29.9
Outdoors	20.7	26.6	25.6	25.7
Other	1.0	3.1	2.8	2.6
Missing	0.2	0.2	0.2	0.1
Total	100.0	100.0	100.0	100.0
Number	2,652	13,015	15,667	74,416

2.4 HOUSEHOLD POSSESSIONS

Information on ownership of durable goods and other possessions is presented in Table 2.9. The availability of durable consumer goods is a good indicator of household socioeconomic level, and particular goods have specific benefits. For example, radio access can increase exposure to innovative ideas, whereas transport vehicles can provide access to services out of the local area.

Sixty-two percent of households in Cambodia own a television, and another 62 percent own a mobile telephone. Ownership of mobile telephones is far more common among urban households (90 percent) than rural households (56 percent). Nearly half of households own a generator/battery or a solar panel.

Twenty-two percent of urban households now own a car or truck, an increase from 15 percent in 2005. More than half of all households own a motorcycle, an increase from one-third of households in 2005. The percentage of households owning a boat remains unchanged at 9 percent.

The 2010 CDHS found that nearly 68 percent of all households own some land, which is slightly lower than the 2005 figure of 72 percent. Sixty-seven percent of all households own at least one farm animal, which is also lower than the 73 percent reported in 2005.

Table 2.9 Household durable goods

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by residence, Cambodia 2010

	Households			Population
Possession	Urban	Rural	Total	Total
Household effects				
Radio	58.3	40.7	43.7	44.8
Television	89.0	56.9	62.4	65.0
Mobile telephone	90.1	56.2	61.9	65.0
Non-mobile telephone	16.2	6.4	8.1	9.4
Refrigerator	29.1	0.6	5.4	6.2
Wardrobe	70.4	30.0	36.8	38.6
Sewing machine	14.9	6.8	8.1	8.8
CD/DVD	58.0	25.6	31.1	33.8
Generator/battery/solar	8.2	56.0	47.9	49.0
Watch	47.1	21.1	25.5	27.9
Means of transport				
Bicycle/cyclo	60.4	66.5	65.5	68.9
Motorcycle/scooter	75.9	49.0	53.5	57.1
Motorcycle-cart	3.4	1.4	1.8	2.1
Oxcart/horse-cart	1.9	20.9	17.7	19.4
Car/truck/van	22.4	3.2	6.5	7.6
Boat with a motor	1.2	4.4	3.8	4.4
Boat without a motor	1.2	5.7	4.9	5.4
Ownership of agricultural land	20.9	77.5	67.9	68.3
Ownership of farm animals[1]	21.3	76.6	67.3	69.2
Number	2,652	13,015	15,667	74,416

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

2.5 HOUSEHOLD WEALTH

In addition to standard background characteristics, many of the results in this report are shown by wealth quintiles, an indicator of the economic status of households. The 2010 CDHS did not collect data on consumption or income, but the information collected on dwelling and household characteristics, consumer goods, and assets is used as a measure of socioeconomic status. The resulting wealth index is an indicator of level of wealth that is used as a proxy for expenditure and income measures.

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

These standardized scores are then used to create the break points that define wealth quintiles. Each household is assigned a standardized score for each asset, where the score differs depending on whether or not the household owns that asset (or, in the case of sleeping arrangements, the number of people per room). These scores are summed by household, and individuals are ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles (i.e., five groups with the same number of individuals in each). At the national level, approximately 20 percent of the household population is grouped into each wealth quintile.

A single asset index is developed on the basis of data from the entire country sample and used in all of the tabulations presented. The reader should keep in mind that wealth quintiles are expressed in terms of quintiles of individuals in the population rather than quintiles of individuals at risk for any one health or population indicator. For example, the quintile rates for infant mortality refer to the infant mortality rates per 1,000 live births among all people in the population quintile concerned, as

distinct from quintiles of live births or newly born infants, who constitute the only members of the population at risk of mortality during infancy.

The wealth index has been compared against both poverty rates and gross domestic product per capita in India and against expenditure data from household surveys in Nepal, Pakistan, and Indonesia (Filmer and Pritchett, 1998) as well as Guatemala (Rutstein, 1999). The evidence from those studies suggests that the asset index is highly comparable to conventionally measured consumption expenditures.

Table 2.10 shows the distribution of the household population into five wealth quintiles (five equally divided levels) based on the wealth index by residence. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed across Cambodia. As expected, urban areas are wealthier than rural areas. For example, 90 percent of Phnom Penh's population falls in the highest wealth quintile. By contrast, Prey Veng has the lowest representation in the highest wealth quintile, with only 5 percent of its population falling in that quintile.

Table 2.10 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles according to residence and region, Cambodia 2010

Residence/region	Wealth quintile					Total	Number of population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	1.5	2.6	5.8	16.1	74.0	100.0	13,231
Rural	24.0	23.8	23.1	20.8	8.3	100.0	61,186
Province							
Banteay Mean Chey	12.9	18.9	20.7	26.6	20.9	100.0	3,127
Kampong Cham	23.4	22.4	24.0	22.8	7.4	100.0	8,787
Kampong Chhnang	30.8	26.1	20.5	16.0	6.5	100.0	2,994
Kampong Speu	20.8	19.4	22.8	24.1	13.0	100.0	4,303
Kampong Thom	30.2	22.4	22.7	13.6	11.0	100.0	3,840
Kandal	10.1	16.4	18.2	36.7	18.5	100.0	7,222
Kratie	34.1	18.5	18.1	16.8	12.5	100.0	1,823
Phnom Penh	0.0	0.1	1.0	8.7	90.2	100.0	6,964
Prey Veng	21.4	28.9	29.2	15.6	4.9	100.0	5,765
Pursat	27.6	22.7	22.2	16.5	11.0	100.0	2,324
Siem Reap	29.4	20.6	21.6	15.3	13.1	100.0	4,786
Svay Rieng	21.6	29.2	26.7	15.3	7.1	100.0	2,836
Takeo	19.4	27.2	23.8	21.1	8.6	100.0	5,089
Otdar Mean Chey	24.4	19.5	19.6	19.9	16.6	100.0	1,009
Battambang/Pailin	14.6	16.6	19.9	27.0	22.0	100.0	5,414
Kampot/Kep	22.7	24.8	22.9	16.0	13.6	100.0	3,632
Preah Sihanouk/Koh Kong	16.2	11.4	11.8	20.6	40.0	100.0	1,622
Preah Vihear/Steung Treng	46.2	25.1	12.3	9.1	7.3	100.0	1,727
Mondol Kiri/Rattanak Kiri	25.9	28.7	19.7	15.4	10.2	100.0	1,152
Total	20.0	20.0	20.0	20.0	20.0	100.0	74,416

2.6 BIRTH REGISTRATION

The registration of births is the inscription of the facts of a birth into an official log. A birth certificate is issued as proof of the registration of the birth. Information on the registration of births was collected in the household interview by asking whether children under age 5 had a birth certificate. If the interviewer was told that the child did not have a birth certificate, the interviewer probed further to ascertain whether the child's birth had been registered with the civil authority. Similar to 2005, only half of children had a birth certificate, and a total of 62 percent of children under age 5 were registered; however, levels of registration varied greatly across the country, as shown in Table 2.11.

Table 2.11 Birth registration of children under age five

Percentage of de jure children under 5 years of age whose births are registered with the civil authorities, according to background characteristics, Cambodia 2010

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	45.5	9.9	55.4	3,164
2-4	54.0	12.3	66.3	4,958
Sex				
Male	50.7	11.3	62.0	4,201
Female	50.8	11.4	62.1	3,921
Residence				
Urban	67.3	7.1	74.4	1,217
Rural	47.8	12.1	59.9	6,905
Province				
Banteay Mean Chey	56.1	11.6	67.7	349
Kampong Cham	44.7	21.6	66.2	958
Kampong Chhnang	54.5	14.1	68.6	361
Kampong Speu	60.3	4.8	65.1	463
Kampong Thom	31.6	20.2	51.8	429
Kandal	50.4	15.8	66.1	825
Kratie	34.7	4.6	39.3	247
Phnom Penh	80.6	1.1	81.6	591
Prey Veng	44.7	10.7	55.4	670
Pursat	33.0	1.9	34.9	270
Siem Reap	59.5	10.7	70.2	573
Svay Rieng	70.5	7.0	77.6	280
Takeo	53.3	4.0	57.2	530
Otdar Mean Chey	65.8	14.9	80.6	104
Battambang/Pailin	40.0	13.2	53.2	579
Kampot/Kep	46.2	15.7	61.9	350
Preah Sihanouk/Koh Kong	55.8	3.0	58.8	166
Preah Vihear/Steung Treng	45.8	7.8	53.6	219
Mondol Kiri/Rattanak Kiri	26.7	12.1	38.8	157
Wealth quintile				
Lowest	38.0	10.1	48.1	2,123
Second	46.8	13.4	60.2	1,749
Middle	50.3	14.3	64.5	1,498
Fourth	55.6	12.0	67.7	1,458
Highest	71.8	6.4	78.2	1,293
Total	50.7	11.3	62.1	8,122

UTILIZATION OF HEALTH SERVICES FOR ACCIDENT, ILLNESS, OR INJURY 3

When the 1998 National Health Survey was undertaken, the Ministry of Health was beginning to implement a redesigned health coverage plan created to improve the accessibility and quality of government health services. The major aim of the new health care plan was to create a network of health centers throughout the country delivering the "Minimum Package of Activities" services. The data collected in the 1998 National Health Survey were considered to be a baseline of health conditions in the country before implementation of the new health coverage plan. The 2000 Cambodia Demographic and Health Survey (CDHS) data were used to provide a first-round analysis of health care delivery under the new plan; the 2005 CDHS assessed progress in the first five years under the new coverage plan; and the 2010 CDHS provides updated progress on those health conditions.

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

3.1 ACCIDENTAL DEATH OR INJURY

All households reported on whether any household member had suffered accidental injury or death in the 12 months preceding the day of the household interview. If anyone had been injured, the cause of the injury was recorded. The respondent to the Household Questionnaire was further asked whether the accident victim was alive or dead and, if dead, whether the death was the result of the reported accident. The questions were designed in this order to definitively assess the cause of injury and, if a death was noted, the cause of death.

3.1.1 Frequency of Accidental Death or Injury

Accidental injuries and deaths in Cambodia were not common (Table 3.1). Two percent of the population had suffered an injury or death by accident in the past 12 months. Accidental injuries were much more common than accidental deaths; for every 1,000 people in the population, 17 suffered an injury and 1 suffered an accidental death.

The percentage of the population injured in the past 12 months increased with age from 0.9 percent among children age 0-9 years to a peak of 2.5 percent among adults age 20-39 years. The percentage experiencing accidental injury decreased thereafter, to 1.7 percent among adults age 40-59 and 1.1 percent among those 60 and above.

Males were more than twice as likely as females to be injured in an accident. Overall, 2.4 percent of males had been injured in an accident in the past 12 months, as compared with 1.1 percent of females. Although there were no substantial differences in accidental injuries by urban-rural residence, there were differences across provinces. The highest percentage of accidental injury was reported in Kampong Speu, with 3.1 percent of the household population experiencing an injury in the preceding 12 months. The lowest rates of accidental injury were in Prey Veng (0.6 percent), Svay Rieng (0.6 percent), and Otdar Mean Chey (0.8 percent). The percentage of accidental death ranged from 0.0 to 0.2 percent across provinces.

Table 3.1 Injury or death in an accident

Percentage of the de jure household population injured or killed in an accident in the past 12 months, according to background characteristics, Cambodia 2010

Background characteristic	Result of accident		Total injured or killed	Total number of de jure household members
	Injured	Killed		
Age				
0-9	0.9	na	na	16,138
10-19	1.7	na	na	16,912
20-39	2.5	na	na	21,908
40-59	1.7	na	na	13,938
60+	1.1	na	na	5,520
Sex				
Male	2.4	na	na	36,138
Female	1.1	na	na	38,276
Residence				
Urban	2.0	0.1	2.1	13,231
Rural	1.7	0.1	1.7	61,186
Province				
Banteay Mean Chey	1.5	0.0	1.5	3,127
Kampong Cham	1.2	0.1	1.3	8,787
Kampong Chhnang	2.0	0.2	2.2	2,994
Kampong Speu	3.1	0.1	3.2	4,303
Kampong Thom	1.8	0.1	1.9	3,840
Kandal	2.1	0.0	2.1	7,222
Kratie	1.2	0.1	1.3	1,823
Phnom Penh	2.3	0.1	2.4	6,964
Prey Veng	0.6	0.1	0.7	5,765
Pursat	1.0	0.0	1.0	2,324
Siem Reap	2.8	0.1	2.9	4,786
Svay Rieng	0.6	0.1	0.6	2,836
Takeo	1.9	0.0	1.9	5,089
Otdar Mean Chey	0.8	0.0	0.8	1,009
Battambang/Pailin	2.0	0.0	2.0	5,414
Kampot/Kep	1.3	0.1	1.5	3,632
Preah Sihanouk/Koh Kong	1.6	0.1	1.7	1,622
Preah Vihear/Steung Treng	1.0	0.0	1.0	1,727
Mondol Kiri/Rattanak Kiri	1.4	0.1	1.5	1,152
Total	1.7	0.1	1.8	74,416

na: Not applicable

3.1.2 Type of Accident

Table 3.2 presents data on injury in an accident by type of accident and according to the background characteristics of age, sex, residence, and province. Data on accidental deaths are also shown, but these data are not available by age and sex.

Road accidents accounted for the greatest proportion of accidental injuries and deaths. Two-thirds of those who had been injured or killed in the previous 12 months was as a result of a road accident. Twelve percent of injuries/deaths were the result of a fall, and 5 percent were the result of an animal bite. Three percent of injuries/deaths were the result of some form of violence, and an additional 2 percent were the result of a gunshot. Fatalities due to landmines have decreased in the past five years, dropping from 0.7 percent of cases in the 2005 CDHS to 0.2 percent of all injuries/deaths in 2010. Eight percent of injuries/deaths were due to other or unknown causes.

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

Percentage of the de jure household population injured or killed in an accident in the past 12 months by type of accident, according to background characteristics, Cambodia 2010

Background characteristic	Type of accident											Total	Number of persons injured/ killed
	Landmine/ unexploded bomb	Gun shot	Road accident	Severe burning	Snake/ animal bite	Fall from tree/ building	Drown-ing	Poison-ing (chemi-cal)	Vio-lence	Other	Don't know/ missing		
	INJURED												
Age													
0-9	0.0	2.8	43.6	1.9	3.6	31.3	1.0	1.7	3.6	6.1	4.3	100.0	143
10-19	0.0	1.9	64.6	0.2	7.1	14.2	0.0	0.0	3.6	4.5	3.9	100.0	291
20-39	0.0	2.3	79.1	0.8	3.6	4.7	0.2	0.8	2.8	2.2	3.5	100.0	544
40-59	0.5	1.1	69.0	0.4	5.8	10.5	0.0	0.0	2.9	5.9	3.9	100.0	244
60+	3.2	4.2	41.6	1.8	13.5	17.0	0.0	0.0	3.2	8.9	6.5	100.0	60
Sex													
Male	0.4	2.6	67.1	0.7	5.2	11.2	0.3	0.6	3.5	4.1	4.3	100.0	865
Female	0.0	1.2	70.5	1.0	5.4	12.1	0.0	0.3	2.1	4.3	3.1	100.0	416
Total	0.2	2.1	68.2	0.8	5.3	11.5	0.2	0.5	3.1	4.2	3.9	100.0	1,282
	INJURED OR KILLED												
Residence													
Urban	0.0	0.2	74.3	1.7	4.4	9.2	0.0	0.0	2.8	5.0	2.5	100.0	274
Rural	0.3	2.7	65.8	0.5	5.3	12.1	0.9	0.7	3.2	4.4	4.1	100.0	1,057
Province													
Banteay Mean Chey	0.0	6.8	64.0	1.0	8.4	10.9	0.0	0.0	4.6	4.3	0.0	100.0	48
Kampong Cham	0.0	2.2	64.6	0.6	3.6	21.4	0.0	0.0	6.4	0.7	0.5	100.0	114
Kampong Chhnang	0.0	7.8	54.2	0.0	14.1	11.6	3.1	0.0	1.0	1.1	7.1	100.0	66
Kampong Speu	0.0	0.0	79.4	0.0	3.6	5.6	0.0	1.0	2.0	3.6	4.7	100.0	136
Kampong Thom	0.0	1.5	73.6	0.0	7.1	12.4	0.0	0.0	0.0	2.6	2.8	100.0	74
Kandal	0.0	3.4	66.0	0.0	4.0	10.4	0.0	3.4	2.9	3.9	5.9	100.0	150
Kratie	(0.0)	(0.0)	(74.1)	(0.0)	(0.0)	(9.3)	(0.0)	(0.0)	(2.6)	(12.2)	(1.8)	100.0	24
Phnom Penh	0.0	0.5	75.4	1.7	4.3	9.7	0.0	0.0	1.0	5.6	1.8	100.0	166
Prey Veng	(0.0)	(4.6)	(50.4)	(0.0)	(5.0)	(26.4)	(0.0)	(0.0)	(0.0)	(9.4)	(4.2)	100.0	42
Pursat	(3.5)	(3.4)	(61.1)	(0.0)	(6.2)	(10.0)	(0.0)	(0.0)	(6.9)	(6.1)	(2.8)	100.0	23
Siem Reap	0.0	0.0	60.0	1.6	8.1	15.1	2.0	0.0	4.9	5.1	3.2	100.0	141
Svay Rieng	(0.0)	(18.2)	(37.6)	(0.0)	(4.7)	(10.8)	(4.6)	(4.7)	(9.4)	(5.0)	(5.0)	100.0	18
Takeo	0.0	4.7	64.1	2.8	0.0	7.1	1.4	0.0	0.0	9.5	10.5	100.0	98
Otdar Mean Chey	(3.9)	(0.0)	(70.0)	(3.9)	(17.8)	(4.4)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	8
Battambang/Pailin	1.8	0.0	77.3	0.0	3.4	3.8	0.0	0.0	7.9	2.7	3.1	100.0	107
Kampot/Kep	0.0	0.0	67.7	0.0	7.3	17.5	4.9	0.0	0.0	1.8	0.8	100.0	53
Preah Sihanouk/Koh Kong	0.0	0.0	74.6	0.0	0.0	8.4	0.0	0.0	5.3	9.4	2.3	100.0	28
Preah Vihear/Steung Treng	(0.0)	(0.0)	(45.7)	(2.6)	(9.1)	(17.3)	(0.0)	(0.0)	(11.1)	(5.9)	(8.2)	100.0	18
Mondol Kiri/Rattanak Kiri	0.0	0.0	68.8	0.0	3.8	15.2	0.0	0.0	0.5	9.1	2.6	100.0	18
Total	0.2	2.2	67.5	0.7	5.1	11.5	0.7	0.6	3.1	4.5	3.8	100.0	1,331

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

Cause of injury varied by age, but road accidents were the most commonly cited source of injury for people of all ages, especially those age 20-39. Animal bites accounted for 14 percent of injuries among people age 60 or above. Gunshots and landmines accounted for a higher percentage of injuries (4 and 3 percent, respectively) among people age 60 and above than for any other age group. Falls from trees or buildings and poisonings accounted for a higher percentage among injured children less than 10 (31 and 2 percent, respectively) than among other age groups. There were significant differences in accidental injuries in the preceding 12 months by sex. Males were more likely than females to be injured as a result of unspecified violence (4 percent versus 2 percent) or by gunshot (3 percent versus 1 percent).

There were other significant differences in accidental injuries/deaths in the preceding 12 months by urban-rural residence and province. Not surprisingly, road accidents accounted for a higher percentage of injuries/deaths in urban areas (74 percent) than in rural areas (66 percent). Falls accounted for a higher proportion of accidental injuries or deaths in rural areas than in urban areas (12 percent versus 9 percent). The distribution of causes of injuries/deaths by province should be analyzed with caution because sample sizes were small in some provinces.

Table 3.3 Physical impairment

Percentage of the de jure household population physically impaired and percent distribution of the impaired de jure household population by cause of impairment, according to background characteristics, Cambodia 2010

Background characteristic	Physically impaired	Number of household members	Cause of impairment							Total	Number of impaired persons
			Birth	Illness	Landmine	Gun	Road accident	Other accident	Don't know/ missing		
Age											
0-9	0.4	16,138	53.9	22.3	0.0	0.0	2.6	21.2	0.0	100.0	71
10-19	0.9	16,912	38.0	23.8	3.7	0.7	7.9	25.8	0.0	100.0	159
20-39	1.6	21,908	28.8	24.2	5.5	2.9	14.5	23.5	0.6	100.0	360
40-59	3.3	13,938	8.7	31.9	23.0	10.5	9.5	16.4	0.0	100.0	453
60+	4.4	5,520	5.3	63.3	6.8	2.4	8.0	14.1	0.1	100.0	241
Sex											
Male	2.2	36,138	19.5	26.6	16.1	7.2	10.1	20.2	0.3	100.0	788
Female	1.3	38,276	20.4	46.0	4.0	1.6	9.9	18.1	0.1	100.0	497
Residence											
Urban	1.3	13,231	17.8	45.3	7.6	4.9	14.2	10.0	0.2	100.0	171
Rural	1.8	61,186	20.1	32.4	12.0	5.1	9.4	20.8	0.2	100.0	1,114
Province											
Banteay Mean Chey	2.5	3,127	24.3	32.8	20.0	6.4	7.1	9.5	0.0	100.0	79
Kampong Cham	1.7	8,787	17.5	30.7	10.3	2.2	12.7	26.6	0.0	100.0	147
Kampong Chhnang	2.0	2,994	17.2	28.9	13.6	8.7	11.2	20.2	0.0	100.0	59
Kampong Speu	1.8	4,303	12.3	39.2	5.4	16.1	13.4	13.5	0.0	100.0	78
Kampong Thom	2.6	3,840	16.2	35.7	9.2	0.2	16.5	22.2	0.0	100.0	101
Kandal	0.9	7,222	(28.5)	(40.7)	(5.7)	(0.0)	(1.1)	(23.9)	(0.0)	100.0	67
Kratie	1.5	1,823	16.9	46.9	3.5	4.1	6.9	21.7	0.0	100.0	27
Phnom Penh	1.2	6,964	12.2	52.5	3.5	5.1	16.2	10.4	0.0	100.0	83
Prey Veng	1.7	5,765	33.2	35.6	0.0	1.5	6.2	23.5	0.0	100.0	99
Pursat	1.9	2,324	22.8	24.3	10.5	5.6	8.7	28.1	0.0	100.0	45
Siem Reap	2.3	4,786	24.5	26.1	17.9	1.4	8.9	19.5	1.7	100.0	110
Svay Rieng	1.9	2,836	30.2	25.5	4.7	7.3	9.4	22.5	0.2	100.0	54
Takeo	1.6	5,089	18.9	37.3	5.1	6.9	15.0	16.7	0.0	100.0	83
Otdar Mean Chey	2.0	1,009	16.0	11.0	42.9	6.9	5.1	18.0	0.0	100.0	20
Battambang/Pailin	2.4	5,414	12.6	32.7	20.7	8.0	8.9	17.1	0.0	100.0	132
Kampot/Kep	1.6	3,632	16.6	41.0	14.3	9.4	1.6	17.1	0.0	100.0	57
Preah Sihanouk/Koh Kong	0.9	1,622	(24.8)	(35.2)	(17.3)	(2.7)	(16.1)	(4.0)	(0.0)	100.0	14
Preah Vihear/Steung Treng	1.3	1,727	14.7	21.5	33.4	0.6	5.0	24.0	0.8	100.0	23
Mondol Kiri/Rattanak Kiri	0.6	1,152	(21.9)	(26.8)	(10.3)	(5.7)	(8.0)	(22.6)	(4.6)	100.0	6
Total	1.7	74,416	19.8	34.1	11.4	5.1	10.0	19.4	0.2	100.0	1,285

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

3.2 PHYSICAL IMPAIRMENT

Questions on physical impairment included one asking whether any living household member is physically impaired and, if so, what was the cause. In 2010, 1.7 percent of the Cambodian population had a physical impairment (Table 3.3). Physical impairments increased with age. People age 60 years and older were more likely than younger people to have physical impairments (4.4 percent versus 3.3 percent or less). Males were more likely (2.2 percent) to be impaired physically than females (1.3 percent). There were small differences in physical impairments by urban-rural residence (1.3 and 1.8 percent, respectively). Differences by province were larger. The percentage of the population with a physical impairment was highest in Kampong Thom (2.6 percent) and lowest in Mondol Kiri/Rattanak Kiri (0.6 percent).

Table 3.3 also shows the causes of physical impairments in Cambodia. The most common cause of impairment was illness (34 percent). Other causes of impairments were birth defects (20 percent) and unspecified accidents (19 percent).

Causes of impairments are presented by age, sex, residence, and province. Impairments at birth were most likely to be reported for children age 0-9 years (54 percent). Other causes of impairment increased with age. For example, the percentage of the population impaired by illness increased from 22 percent for children age 0-9 to 63 percent for people age 60 and older. Landmines and gunshots mostly affected persons age 40-59, and impairments caused by road accidents primarily affected those age 20-39.

Males were much more likely than females to have been impaired by landmines (16 percent versus 4 percent) and gunshot accidents (7 percent versus 2 percent). Impairments caused by

landmines and other unspecified causes were more prevalent in rural than in urban areas, whereas impairments due to illness and road accidents were higher in urban areas. As in Table 3.2, interpretation of the causes of physical impairment by province in Table 3.3 is complicated by the small number of cases in some provinces.

3.3 Prevalence and Severity of Illness or Injury

All households were asked whether any members had been sick or injured at any time in the 30 days before the interview. If any members had been sick, their names were recorded to ask specifically about their conditions in the questions that followed. The Household Questionnaire allotted space for information to be recorded for up to three household members. Interviewers were instructed to use extra questionnaires to record the information on all household members who were ill or injured. The respondent was asked to judge the illness or injury as slight, moderate, or severe. Finally, questions were asked as to whether ill or injured household members sought care, where they sought care, how much they spent on transport, and how much they spent on treatment. These questions were repeated to collect information on patterns of health care-seeking behavior. For example, a man might first seek treatment from a Kru Khmer traditional healer but later visit a health clinic if the illness continued. Up to three care-seeking attempts were recorded on the questionnaire for each ill or injured person.

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

Eighty-six percent of all illnesses or injuries were slight or moderate in severity. Only 1.5 percent of household members experienced a serious illness or injury. The highest percentage of illness or injury was found among persons age 60 years and older; 6 percent had slight illness or injury, 10 percent had moderate illness or injury, and 3 percent reported serious illness or injury. Females and rural residents suffered more illnesses and injuries than males and urban residents. The highest percentages of illness or injury were found in Kampong Chhnang (18 percent), Kandal (17 percent), and Kampong Speu (15 percent).

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

Percent distribution of the de jure household population ill or injured in the previous 30 days by severity of illness or injury, according to background characteristics, Cambodia 2010

Background characteristic	Severity of illness or injury				Total	Number of population
	Not ill or injured	Slight	Moderate	Serious		
Age						
0-9	84.7	7.9	5.8	1.6	100.0	16,138
10-19	95.0	1.8	2.3	0.8	100.0	16,912
20-39	92.6	2.6	3.6	1.2	100.0	21,908
40-59	86.5	4.3	7.0	2.2	100.0	13,938
60+	80.5	5.8	10.3	3.4	100.0	5,520
Sex						
Male	90.9	3.4	4.2	1.5	100.0	36,138
Female	88.0	4.8	5.6	1.6	100.0	38,276
Residence						
Urban	92.2	2.9	3.9	1.0	100.0	13,231
Rural	88.8	4.4	5.2	1.7	100.0	61,186
Province						
Banteay Mean Chey	90.4	3.5	3.9	2.3	100.0	3,127
Kampong Cham	89.1	4.8	4.8	1.2	100.0	8,787
Kampong Chhnang	82.0	7.1	8.8	2.1	100.0	2,994
Kampong Speu	85.1	6.4	6.8	1.8	100.0	4,303
Kampong Thom	90.7	3.2	3.8	2.4	100.0	3,840
Kandal	83.2	11.7	4.8	0.3	100.0	7,222
Kratie	88.8	3.2	5.9	2.1	100.0	1,823
Phnom Penh	94.6	1.1	3.3	1.0	100.0	6,964
Prey Veng	94.2	0.9	4.2	0.8	100.0	5,765
Pursat	92.0	1.3	5.3	1.3	100.0	2,324
Siem Reap	87.0	4.5	5.9	2.6	100.0	4,786
Svay Rieng	94.1	0.6	2.4	2.9	100.0	2,836
Takeo	89.6	2.5	5.2	2.6	100.0	5,089
Otdar Mean Chey	94.9	1.2	3.2	0.7	100.0	1,009
Battambang/Pailin	88.1	6.3	4.5	1.1	100.0	5,414
Kampot/Kep	88.5	1.1	8.3	2.0	100.0	3,632
Preah Sihanouk/Koh Kong	94.5	0.8	3.2	1.5	100.0	1,622
Preah Vihear/Steung Treng	90.6	2.4	5.3	1.7	100.0	1,727
Mondol Kiri/Rattanak Kiri	91.7	4.6	3.2	0.5	100.0	1,152
Total	89.4	4.1	4.9	1.5	100.0	74,416

3.4 TREATMENT SOUGHT FOR ILLNESS OR INJURY

Table 3.5 presents the percentage of the ill or injured population who sought treatment according to the number of times they did so. The type of treatment recorded included, but was not limited to, care provided by medically trained professionals. For example, if a sick child was first given a remedy by a Kru Khmer traditional healer, this was recorded as the first treatment. If the parents later observed that the child was still ill and went to a shop in the market for medicine, this was recorded as the second treatment. If the medicine was not effective and the parents took the child to a doctor at a private clinic, this was recorded as the third treatment.

Ninety-two percent of household members who were ill sought at least one treatment (Table 3.5), a percentage that has not changed since the 2005 CDHS. Twenty-three percent of those ill or injured sought at least two treatments, and 8 percent sought at least three treatments. In general, there was a positive relationship between the severity of illness or injury and the number of times treatment was sought. Persons with serious illnesses or injuries were more likely to seek treatment than those with moderate illnesses or injuries. These latter individuals in turn were more likely to seek treatment than those with slight illnesses or injuries. Eighty-eight percent of those with a slight illness, 95 percent of those with a moderate illness, and 96 percent of those with a serious illness or injury sought a first treatment. The corresponding percentages among those who sought a second treatment were 15 percent, 25 percent, and 35 percent. Five percent of slight illnesses or injuries were treated three times or more, as compared with 14 percent of serious illnesses or injuries. There were small differences in health-seeking behavior by sex and age. Rural residents were more likely to seek a second or third treatment than urban residents.

The provinces with the highest percentages of ill or injured persons seeking treatment were Pursat, Kampong Chhnang, and Prey Veng (98 percent each), whereas the province with the lowest percentage was Preah Sihanouk/Koh Kong (85 percent).

Table 3.5 Percentage of ill or injured population who sought treatment

Percentage of de jure household members who were ill or injured in the past 30 days who sought a first, second, and third treatment, according to background characteristics, Cambodia 2010

Background characteristic	Treatment for illness or injury			Number of ill/injured population
	First treatment	Second treatment	Third treatment	
Severity of illness or injury				
Slight	87.7	14.9	4.5	3,065
Moderate	94.7	25.0	9.1	3,669
Serious	96.1	35.4	14.0	1,149
Age				
0-9	94.3	23.0	6.8	2,464
10-19	95.1	20.5	8.0	843
20-39	92.0	21.7	8.8	1,621
40-59	89.0	22.8	7.6	1,886
60+	90.9	24.0	10.4	1,074
Sex				
Male	92.4	23.3	7.3	3,300
Female	92.0	22.0	8.6	4,587
Residence				
Urban	95.4	17.9	4.9	1,027
Rural	91.7	23.3	8.5	6,861
Province				
Banteay Mean Chey	90.6	12.5	2.7	301
Kampong Cham	96.7	23.3	9.0	956
Kampong Chhnang	98.5	30.9	10.7	538
Kampong Speu	93.7	13.4	2.9	642
Kampong Thom	90.6	19.5	4.7	358
Kandal	88.0	19.4	7.9	1,215
Kratie	93.8	7.9	0.4	204
Phnom Penh	97.2	17.5	2.4	375
Prey Veng	97.7	39.5	17.9	337
Pursat	98.7	11.4	1.3	185
Siem Reap	86.6	19.4	6.5	622
Svay Rieng	91.3	31.3	14.2	166
Takeo	92.0	41.8	21.3	528
Otdar Mean Chey	93.9	23.0	4.7	52
Battambang/Pailin	86.1	18.7	7.1	643
Kampot/Kep	94.2	39.3	11.1	417
Preah Sihanouk/Koh Kong	85.2	9.5	1.6	89
Preah Vihear/Steung Treng	87.6	8.6	0.7	163
Mondol Kiri/Rattanak Kiri	93.3	14.3	2.7	96
Total	92.2	22.6	8.0	7,888

3.5 UTILIZATION OF HEALTH CARE FACILITIES

Information on the location of health care providers was collected to determine where persons who were ill or injured went for treatment. Health care providers were distinguished by public sector, private sector, and non-medical sector. Interviewers were provided with descriptions of the different types of hospitals, clinics, pharmacies, and other health venues. If, during data collection, the interviewer had difficulties distinguishing among the various types, the team supervisor or field editor ascertained the correct designation from local sources.

Table 3.6 presents data on utilization of health services by type of residence (urban-rural). Small differences in patterns of health care use can be observed, with the private sector in general used most often, followed by the public sector and then the non-medical sector. Urban and rural residents sought a first, second, or third treatment in about equal proportions.

Table 3.6 Percentage of ill or injured population who sought treatment, by place of treatment

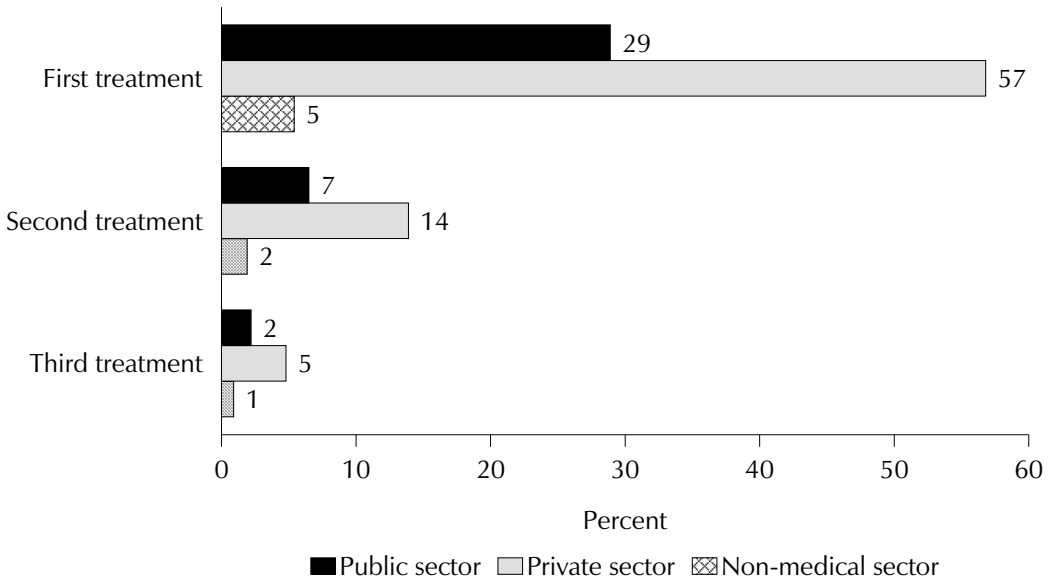
Percent distribution of de jure household members who were ill or injured in the past 30 days by place of treatment, according to urban-rural residence, Cambodia 2010

	Residence								
	Urban			Rural			Total		
Place of treatment	First treatment	Second treatment	Third treatment	First treatment	Second treatment	Third treatment	First treatment	Second treatment	Third treatment
Did not seek treatment	**4.6**	**82.1**	**95.1**	**8.3**	**76.7**	**91.5**	**7.8**	**77.4**	**92.0**
Public sector	**25.7**	**4.4**	**1.3**	**29.4**	**6.8**	**2.3**	**28.9**	**6.5**	**2.2**
National hospital (PP)	12.2	1.9	0.3	4.3	1.5	0.6	5.3	1.5	0.6
Provincial hospital (RH)	5.1	0.8	0.3	3.3	1.0	0.2	3.6	1.0	0.2
District hospital (RH)	2.0	0.4	0.2	3.2	0.7	0.4	3.1	0.7	0.3
Health center	5.8	1.0	0.2	17.5	3.4	1.1	16.0	3.1	1.0
Health post	0.0	0.0	0.1	0.3	0.1	0.0	0.2	0.1	0.0
Outreach	0.0	0.0	0.0	0.4	0.1	0.1	0.4	0.1	0.1
Other public	0.6	0.3	0.1	0.3	0.0	0.0	0.3	0.1	0.0
Private sector	**65.7**	**12.2**	**3.2**	**55.5**	**14.1**	**5.0**	**56.8**	**13.9**	**4.8**
Private hospital	4.1	0.6	0.4	4.0	0.7	0.2	4.0	0.7	0.2
Private clinic	27.1	5.6	1.1	16.0	4.7	1.7	17.4	4.8	1.6
Private pharmacy	20.0	2.9	1.0	7.7	2.2	0.8	9.3	2.3	0.8
Home/office of trained health worker/nurse	6.3	1.2	0.5	8.4	2.2	0.6	8.1	2.0	0.6
Visit of trained health worker/nurse	7.5	1.7	0.4	17.7	3.8	1.6	16.4	3.6	1.4
Other private medical	0.8	0.2	0.0	1.7	0.5	0.2	1.6	0.5	0.2
Non-medical sector	**2.8**	**0.6**	**0.2**	**5.9**	**2.0**	**1.0**	**5.4**	**1.9**	**0.9**
Shop/market	2.4	0.6	0.2	4.9	1.4	0.7	4.6	1.3	0.6
Kru Khmer/magician	0.4	0.1	0.0	0.9	0.6	0.3	0.8	0.5	0.2
Monk/religious leader	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional birth attendant	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Outside of country/other	**1.2**	**0.7**	**0.2**	**1.0**	**0.3**	**0.1**	**1.0**	**0.3**	**0.2**
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,027	1,027	1,027	6,861	6,861	6,861	7,888	7,888	7,888

Within the public sector, health centers were most often sought for treatment of illnesses and injuries (18 percent) in rural areas, whereas national hospitals were most often sought for treatment (12 percent) in urban areas. Within the private sector, private clinics were most often sought for treatment in both urban areas (27 percent) and rural areas (16 percent). Private pharmacies were much more likely to be visited for first treatment in urban areas than in rural areas (20 percent versus 8 percent), whereas trained health workers and nurses were more commonly sought out for first-time treatment in rural areas than in urban areas (18 percent versus 8 percent). Within the non-medical sector, shops or markets were the overwhelming choice as a source of health care.

Figure 3.1 summarizes the findings detailed in Table 3.6. The public sector is about twice as likely to be visited for all three treatments. After the public sector, people most often choose the private sector for first, second, and third treatments.

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



CDHS 2010

3.6 Cost for Health Care

3.6.1 Distribution of Cost for Health Care

For each ill or injured person, the respondent was asked to state the costs expended for transportation and treatment for each visit to a health care provider. These costs were reported only for living people who had been recently ill or injured and did not include costs incurred for people who had died in the 30 days preceding the interview. Costs are presented in US dollars in Table 3.7. In the case of all treatments, 15 percent of household members spent $1 or less for transportation and treatment for illness or injury, and 21 percent spent $1 to $4. About 8 percent of all household members spent $50-$99 for transportation and treatment for illness or injury, whereas 7 percent of all ill or injured persons spent $100 or more.

These expenditures varied by type of spending. For transport, 56 percent of household members spent less than $1, 29 percent spent $1 to $4, 7 percent spent $5 to $9, and the rest (7 percent) spent $10 or more. For health care, almost 7 in 10 households spent up to $19, 16 percent spent between $20 and $49, 8 percent spent between $50 and $99, and 7 percent spent $100 or more. There were small variations in spending according to order of treatment.

Table 3.7 Distribution of cost for health care

Percent distribution of de jure household members who were ill or injured in the past 30 days and sought treatment by amount in United States dollars spent for transport and health care, according to number of treatments, Cambodia 2010

	Treatment for illness or injury											
	First treatment			Second treatment			Third treatment			All treatments		
Amount spent for transport and health care	Transport	Health care	Total	Transport	Health care	Total	Transport	Health care	Total	Transport	Health care	Total
Monetary cost												
$0-$1	58.2	25.5	17.7	52.5	25.2	17.1	55.6	22.7	16.2	56.1	22.1	15.3
$1-$4	29.3	19.8	23.8	34.4	21.5	25.5	30.1	26.8	29.5	28.6	18.3	21.1
$5-$9	6.5	12.6	13.7	6.5	16.3	17.6	7.3	16.2	17.0	7.4	12.3	13.2
$10-$19	3.5	14.9	16.1	2.9	13.3	14.5	2.9	13.3	15.6	4.2	15.4	16.5
$20-$49	1.4	14.4	15.2	1.7	13.2	13.5	2.2	8.6	8.5	2.1	15.7	16.4
$50-$99	0.4	6.0	6.3	0.8	4.5	5.1	0.6	6.2	6.0	0.6	7.7	8.1
$100+	0.2	5.6	5.8	0.5	4.6	4.8	1.3	3.9	5.0	0.4	7.0	7.4
Non-monetary cost												
In kind	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Don't know/missing	0.6	1.1	1.4	0.6	1.3	1.6	0.0	2.2	2.2	0.7	1.5	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	7,270	7,270	7,270	1,780	1,780	1,780	633	633	633	7,270	7,270	7,270

3.6.2 Expenditures for Health Care

Table 3.8 presents the mean cost of transport and treatment by order of treatment and background characteristics. Mean costs for first, second, and third treatments are $30.49, $43.92, and $21.50, respectively. Mean cost of transport increases with treatment order, from $2.08 for the first treatment to $3.00 for the second treatment and then $4.04 for the third treatment.

The mean cost of transport and health care varies according to type of health sector, severity of illness or injury, age group, sex, residence, and province. Examining total costs by type of health sector shows that the highest mean expenditure is for "outside of country/other" treatment, which may include going to Singapore, Thailand, or Vietnam or seeking specialized services. This is true for both costs of transport and costs of health care. The total cost for treatment, in both the public and private sectors, diminishes as the number of treatments sought increases (Table 3.8). Whereas the cost of transport in these two sectors increases from the first through the third treatment cycles, the cost of health care decreases considerably.

Total cost has substantially increased in the past five years. Increases have been observed across all sectors, in every treatment cycle, and in both transport costs and health care costs. Total "outside of country/other" costs have increased dramatically from the 2005 CDHS, from $10.94 to $324.26. "Outside of country/other" treatment is the most expensive treatment option due to high transport ($19.92) and health care ($304.34) costs.

Table 3.8 Expenditures for health care

Mean expenditures in United States dollars for transport and health care by de jure household members who were ill or injured in the past 30 days and sought treatment by order of treatments, according to background characteristics, Cambodia 2010

Background characteristic	Treatment for illness or injury											
	First treatment			Second treatment			Third treatment			All treatments		
	Transport	Health care	Total	Transport	Health care	Total	Transport	Health care	Total	Transport	Health care	Total
Type of health sector												
Public	3.04	32.41	35.45	4.45	29.69	34.14	5.15	20.31	25.46	3.41	31.25	34.65
Private	1.52	27.06	28.58	1.87	24.69	26.56	2.79	16.62	19.41	1.66	25.96	27.63
Non-medical	1.04	8.42	9.46	1.24	25.69	26.93	0.58	6.45	7.03	1.04	12.07	13.11
Outside of country/other	11.42	96.89	108.31	*	*	*	*	*	*	19.92	304.34	324.26
Severity of illness or injury												
Slight	0.80	6.57	7.37	1.04	23.33	24.37	0.28	2.99	3.27	0.81	8.75	9.56
Moderate	2.01	25.48	27.49	2.31	15.86	18.16	3.30	11.25	14.54	2.16	22.63	24.78
Serious	5.41	90.97	96.37	6.83	118.44	125.27	8.85	42.94	51.79	6.08	92.99	99.07
Age												
0-9	1.57	9.51	11.08	2.34	7.95	10.28	2.32	6.35	8.66	1.76	9.04	10.80
10-19	1.67	20.84	22.51	2.05	16.27	18.32	4.15	13.99	18.14	1.90	19.64	21.54
20-39	2.21	36.85	39.05	2.26	76.38	78.64	1.79	15.73	17.51	2.19	42.28	44.47
40-59	2.65	33.95	36.60	4.97	39.84	44.82	9.29	22.34	31.63	3.51	34.35	37.86
60+	2.45	57.67	60.12	2.85	84.68	87.53	2.81	33.34	36.15	2.56	60.91	63.47
Sex												
Male	2.30	32.75	35.05	3.04	45.35	48.39	4.28	18.20	22.48	2.56	34.28	36.83
Female	1.92	25.28	27.20	2.98	37.54	40.52	3.90	17.01	20.90	2.24	26.90	29.15
Residence												
Urban	2.43	63.61	66.04	3.05	142.01	145.06	6.63	46.89	53.52	2.69	74.79	77.49
Rural	2.02	22.91	24.94	3.00	29.21	32.21	3.82	14.90	18.72	2.33	23.55	25.88
Province												
Banteay Mean Chey	3.39	32.63	36.03	(4.11)	(30.13)	(34.24)	*	*	*	3.57	32.03	35.60
Kampong Cham	1.49	22.51	24.00	3.79	19.72	23.51	(6.98)	(12.50)	(19.48)	2.30	21.28	23.59
Kampong Chhnang	1.31	18.12	19.43	1.39	33.45	34.84	1.17	14.28	15.45	1.32	21.20	22.52
Kampong Speu	1.47	28.01	29.47	1.58	18.10	19.68	*	*	*	1.52	26.40	27.92
Kampong Thom	1.83	32.00	33.84	4.92	105.96	110.88	*	*	*	2.33	43.47	45.80
Kandal	1.00	13.48	14.48	2.22	11.20	13.42	(2.83)	(12.17)	(15.00)	1.33	13.01	14.33
Kratie	7.01	50.76	57.77	(21.82)	(49.82)	(71.64)	*	*	*	8.14	50.50	58.63
Phnom Penh	1.88	113.06	114.94	(4.10)	(467.06)	(471.16)	*	*	*	2.21	166.90	169.10
Prey Veng	3.20	30.98	34.18	2.69	17.50	20.19	(1.11)	(6.64)	(7.75)	2.83	24.76	27.59
Pursat	3.36	29.58	32.94	(3.42)	(22.10)	(25.52)	*	*	*	3.39	28.70	32.09
Siem Reap	2.01	22.42	24.43	2.69	11.00	13.68	(1.91)	(12.07)	(13.97)	2.12	19.88	22.00
Svay Rieng	3.30	32.39	35.70	2.27	37.22	39.49	(4.80)	(31.46)	(36.26)	3.24	33.35	36.59
Takeo	1.55	18.65	20.20	1.33	10.89	12.21	1.59	9.84	11.43	1.50	15.31	16.80
Otdar Mean Chey	3.65	16.58	20.23	1.70	12.52	14.23	*	*	*	3.19	16.07	19.27
Battambang/Pailin	2.80	35.31	38.11	7.92	51.40	59.32	(22.76)	(37.71)	(60.47)	4.75	38.17	42.92
Kampot/Kep	1.17	12.22	13.39	1.09	19.82	20.91	(1.78)	(22.13)	(23.92)	1.20	15.05	16.24
Preah Sihanouk/Koh Kong	5.91	34.54	40.45	(4.81)	(29.12)	(33.93)	*	*	*	5.71	34.55	40.26
Preah Vihear/Steung Treng	3.12	18.35	21.47	(6.97)	(28.15)	(35.11)	*	*	*	3.44	19.11	22.55
Mondol Kiri/Rattanak Kiri	5.19	28.01	33.20	(3.37)	(18.93)	(22.30)	*	*	*	5.09	27.86	32.94
Total	2.08	28.41	30.49	3.00	40.92	43.92	4.04	17.46	21.50	2.38	29.99	32.37

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

In general, health care costs rose significantly by severity of illness or injury. The total mean cost of health care increased from $8.75 for slight illness or injury to $92.99 for serious conditions. This followed the same trend established in the 2005 CDHS ($3.13 for slight illness or injury to $47.17 for serious illnesses), although, as noted above, overall costs have increased in the past five years.

Total health care costs rise with the patient's age, from $9.04 for children age 0-9 to $42.28 for people age 20-39. The total cost for people age 40-59 is $34.35, increasing to $60.91 for people 60 years or older. Health care expenditures by sex show that men spent more than women on health care ($34.28 versus $26.90). A comparison with the findings of the 2005 CDHS shows that health care spending seems to have become less equitable. In 2005, men spent about the same as women on health care ($14.09 versus $13.91).

Total health care costs have remained higher in urban areas than in rural areas since the 2005 CDHS. In urban areas costs increased from $22.89 in 2005 to $74.79 in 2010, and in rural areas costs increased from $12.76 in 2005 to $23.55 in 2010. By contrast, whereas transport costs in rural areas have not changed much over the past five years ($1.17 versus $2.33), transport costs in urban areas have more than doubled ($0.94 versus $2.69).

Health care expenditures vary greatly in Cambodia's provinces. The cost of health care is highest in Phnom Penh ($166.90) and lowest in Kandal ($13.01).

Because the health care system in Cambodia is largely fee based, it is important to know the source of the money used to pay for health care. One goal of the health care system is to have appropriate funding mechanisms for the population to acquire health care without deepening poverty. Table 3.9 shows the different sources of money spent by people seeking treatment for health care. Percentages could sum to greater than 100 because a person could use money from more than one source. Forty-five percent of the money spent on health care came from wages or pocket money and 51 percent from savings. Gifts from relatives or friends and sale of assets accounted for 9 percent and 8 percent of the sources used for funding of health care. Only 2 percent of money spent came from a health equity fund.

There are small differences in the source of money spent on health care by type of health sector. Across all sectors, savings is the most common source of funding (47 percent to 52 percent), followed by wages or pocket money (38 percent to 48 percent). Money borrowed with interest is the next most common source of funding for health care (10 percent to 16 percent).

The source of money for treatment varied by the severity of illness or injury. Wages or pocket money and savings were the most common sources of money used for care of slight illnesses. With severe illnesses, the source shifted to money borrowed with interest (from 6 percent for slight illness to 21 percent for severe illness), money borrowed without interest (from 4 percent for slight illness to 15 percent for severe illness), sale of assets (from 5 percent for slight illness to 17 percent for severe illness), and gifts from relatives or friends (from 5 percent for slight illness to 13 percent for severe illness).

Table 3.9 Source of money spent by persons who sought treatment for health care

Percentage of the source of expenditures for transport and health care, according to background characteristics, Cambodia 2010

	Source of money for health care													
Background characteristic	Community-based health insurance	Health insurance through employer	Health equity fund	Other privately purchased commercial health insurance	Wages/ pocket money	Gift from relative/ friend	Savings	Borrow (no interest)	Borrow (with interest)	Sale of assets	NGO	Tong Tin	Other/ missing	Number
Type of health sector														
Public	1.4	0.7	6.6	0.1	40.7	7.4	47.4	7.6	9.6	8.4	0.4	0.1	1.6	2,088
Private	0.1	0.1	0.3	0.0	48.3	9.1	52.1	7.8	10.6	8.0	0.1	0.0	2.3	4,611
Non-medical	0.5	0.0	1.3	0.0	37.6	9.2	50.0	5.2	12.0	6.7	0.3	0.0	2.8	468
Other	1.3	0.4	0.9	1.7	39.1	12.2	49.0	1.8	15.5	16.2	0.0	0.0	8.0	103
Severity of illness or injury														
Slight	0.3	0.2	1.9	0.1	51.6	5.2	49.3	3.5	6.0	4.8	0.0	0.1	1.6	2,689
Moderate	0.6	0.2	2.0	0.0	43.1	9.8	54.1	8.2	10.7	8.1	0.1	0.0	2.4	3,473
Serious	0.5	0.3	3.3	0.1	36.9	13.4	42.3	15.1	20.8	16.7	0.6	0.0	3.1	1,104
Monetary cost														
$0-$1	2.3	0.8	7.2	0.3	45.9	3.6	43.4	2.5	2.8	3.6	0.2	0.0	2.4	1,113
$1-$4	0.3	0.4	2.7	0.0	51.8	5.6	49.4	4.0	4.5	5.5	0.1	0.0	1.1	1,532
$5-$9	0.3	0.0	1.3	0.1	48.0	7.5	57.0	6.8	7.5	6.1	0.2	0.0	0.8	963
$10-$19	0.0	0.0	0.8	0.0	46.0	9.1	55.4	7.6	10.4	7.2	0.1	0.0	2.1	1,200
$20-$49	0.2	0.0	0.9	0.0	40.7	10.4	51.5	10.3	18.0	9.8	0.1	0.0	3.0	1,193
$50-$99	0.0	0.2	0.5	0.2	40.7	13.4	47.5	14.6	19.1	12.0	0.1	0.0	2.9	592
$100+	0.3	0.2	0.0	0.0	34.6	17.0	47.4	13.8	24.5	24.1	0.7	0.0	3.2	538
Sex														
Male	0.3	0.3	2.6	0.1	44.8	7.2	50.4	8.4	11.8	8.3	0.2	0.0	1.9	3,048
Female	0.6	0.2	1.8	0.1	45.6	9.7	50.7	6.9	9.5	8.1	0.2	0.0	2.4	4,222
Residence														
Urban	0.2	0.6	0.7	0.1	54.1	13.5	63.0	5.1	5.1	4.3	0.3	0.2	1.4	979
Rural	0.5	0.2	2.4	0.1	43.9	7.9	48.6	7.9	11.3	8.8	0.2	0.0	2.3	6,291

Continued…

Table 3.9—*Continued*

Background characteristic	Source of money for health care													
	Community-based health insurance	Health insurance through employer	Health equity fund	Other privately purchased commercial health insurance	Wages/ pocket money	Gift from relative/ friend	Savings	Borrow (no interest)	Borrow (with interest)	Sale of assets	NGO	Tong Tin	Other/ missing	Number
Province														
Banteay Mean Chey	0.2	0.0	6.9	0.0	28.8	4.9	65.6	5.8	13.0	2.9	0.2	0.0	2.6	273
Kampong Cham	0.0	0.0	4.3	0.0	56.9	4.0	35.1	3.6	12.2	8.6	0.0	0.0	2.9	924
Kampong Chhnang	0.0	0.0	0.8	0.0	29.1	4.8	77.3	6.8	8.3	25.5	0.8	0.0	1.2	530
Kampong Speu	0.0	0.0	0.2	0.0	71.7	6.4	25.3	9.0	6.8	6.0	0.0	0.0	0.8	602
Kampong Thom	2.4	0.3	5.0	0.0	73.9	14.4	17.1	15.0	22.8	6.0	0.1	0.0	0.9	325
Kandal	0.0	0.2	0.0	0.1	54.9	7.7	52.5	4.6	7.4	2.9	0.0	0.0	1.0	1,069
Kratie	0.0	0.2	4.0	1.0	44.0	7.6	61.8	7.0	12.8	4.0	0.6	0.0	1.4	191
Phnom Penh	0.0	1.0	0.8	0.0	64.3	17.9	68.1	6.2	6.6	4.1	0.4	0.0	0.5	364
Prey Veng	0.6	0.0	0.0	0.0	24.5	10.2	57.5	7.2	12.8	1.2	0.0	0.0	0.0	329
Pursat	0.6	0.0	12.7	0.0	11.2	6.4	61.9	9.1	24.2	18.0	1.1	0.0	0.9	183
Siem Reap	1.7	1.5	0.5	0.0	72.0	7.4	11.3	9.3	5.9	5.6	0.0	0.0	4.9	539
Svay Rieng	0.0	0.0	2.3	0.0	23.7	6.2	54.1	8.1	8.2	20.4	0.0	0.0	9.0	152
Takeo	1.1	0.0	2.3	0.0	26.2	19.6	66.0	14.7	13.7	12.4	0.3	0.0	2.9	486
Otdar Mean Chey	9.5	0.8	1.3	0.0	58.8	3.6	36.5	3.3	10.0	5.2	0.4	0.0	0.8	49
Battambang/Pailin	0.0	0.0	1.1	0.3	21.0	10.7	61.4	8.3	16.2	8.5	0.0	0.3	5.8	554
Kampot/Kep	0.6	0.3	2.5	0.3	11.6	9.0	75.0	7.0	4.8	12.4	0.0	0.0	1.0	393
Preah Sihanouk/ Koh Kong	0.0	0.0	2.1	0.0	36.2	6.4	47.7	5.2	9.2	1.2	0.0	0.0	3.0	76
Preah Vihear/ Steung Treng	1.6	0.0	1.3	0.0	46.8	7.8	71.6	11.3	4.6	1.5	0.6	0.0	1.1	143
Mondol Kiri/ Rattanak Kiri	1.1	0.4	6.6	0.0	22.7	3.3	78.3	3.6	3.5	1.1	0.7	0.0	0.8	89
Total	0.5	0.2	2.2	0.1	45.3	8.6	50.6	7.5	10.5	8.2	0.2	0.0	2.2	7,270

The monetary costs of health care treatment show a pattern similar to those described above. Wages and pocket money were the most common source of funding for health costs under $99 (41 percent to 52 percent). The use of wages and pocket money decreased as the cost of health care treatment increased over $99 (35 percent). Savings contributed nearly half (47 percent) of the funding when spending was $100 or more. Money borrowed with interest and sale of assets were the next important sources of money for treatment costs of $100 or more.

There were no substantial differences in the source of money used for health care costs by the patient's sex. Urban residents were more likely than rural residents to use wages or pocket money (54 percent versus 44 percent) or savings (63 percent compared with 49 percent) for health care.

Large differences were found in the sources of money for health care costs by province. Patients in Kampong Speu, Kampong Thom, and Siem Reap were the most likely to use their wages or pocket money to pay for their health care (72 to 74 percent) and the least likely to use their savings (11 to 25 percent).

Conversely, Kampong Chhnang and Mondol Kiri/Rattanak Kiri were the provinces most likely to use savings for health care spending (77 and 78 percent, respectively). Pursat and Kampot/Kep were least likely to use their wages/pocket money for health care spending (11 and 12 percent, respectively). Patients in Kampong Chhnang (26 percent) had the highest reliance on sale of assets for health care spending. Patients in Pursat had the highest percentages of use of money borrowed with interest and a health equity fund to finance their health care spending. Approximately 10 percent of patients in Otdar Mean Chey reported that community-based health insurance was their source of funding for health care costs.

RESPONDENT CHARACTERISTICS 4

This chapter provides a demographic and socioeconomic profile of respondents interviewed in the 2010 Cambodia Demographic and Health Survey (CDHS). Such background information is essential to the interpretation of findings and for understanding the results presented later in the report. Basic characteristics collected include age, level of education, marital status, religion, and wealth status. Exposure to mass media and literacy status were examined, and detailed information was collected on employment status, occupation, and earnings. In addition, the CDHS collected data on knowledge and attitudes concerning health insurance coverage and use of tobacco.

4.1 CHARACTERISTICS OF SURVEY RESPONDENTS

Background characteristics of the 18,754 women age 15-49 and the 8,239 men age 15-49 interviewed in the 2010 CDHS are shown in Table 4.1. This table is important in that it provides a background for interpreting findings presented later in the report.

The distribution of the population of women and men by age reflects recent Cambodian history. Note that 20 percent of women and 23 percent of men fall into the 15-19 age group, whereas 17 percent of women and men fall into the 20-24 age group and the same percentage into the 25-29 age group. Smaller proportions of women and men are found in the older age groups. Between 10 and 12 percent of women and men fall into each of the five-year age groups between 30 and 49. This age distribution of respondents is unusual and reflects the effects of the Khmer Rouge regime (1975-1979), during which fertility rates declined and were coupled with higher than normal mortality due to national conflict. Between one and two million people are estimated to have been killed during the reign of the Khmer Rouge. These events are reflected in the smaller than expected proportions of women and men in the 30-34 and 35-39 age groups.

Approximately 60 percent of Cambodians are married or living with their partner. The proportion not currently married varies by gender, with 3 in 10 women never married as compared with almost 4 in 10 men. Women are more than twice as likely as men to be divorced, separated, or widowed (7 percent and 3 percent, respectively).

Access to services and exposure to information pertaining to reproductive health and other aspects of life are often determined by one's area of residence. The majority of respondents reside in rural areas, with only 21 percent of Cambodian women and men residing in urban areas. Slightly more than 11 percent of men and women live in Kampong Cham, and 12 percent live in the capital city of Phnom Penh. Cambodians are predominantly Buddhist (97 percent); 1 percent are Moslem and less than 1 percent are Christian.

The majority of Cambodians have some formal schooling, and educational levels of women have improved within the past 10 years. The percentage of women with no schooling declined from 28 percent in the 2000 CDHS to 19 percent in the 2005 CDHS and 16 percent in the 2010 CDHS. Moreover, the percentage of women who attended any secondary school increased from 25 percent in 2005 to 35 percent in 2010. However, Table 4.1 shows there are still notable differences in educational attainment between women and men. Twice as many women as men have no schooling (16 percent versus 8 percent), and men are approximately one and a half times more likely than women to have attended secondary school (51 percent versus 35 percent).

Table 4.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Cambodia 2010

Background characteristic	Women			Men		
	Weighted percentage	Weighted number	Unweighted number	Weighted percentage	Weighted number	Unweighted number
Age						
15-19	19.9	3,734	3,915	22.6	1,863	1,859
20-24	16.8	3,155	3,172	17.0	1,402	1,428
25-29	17.4	3,262	3,209	16.7	1,377	1,370
30-34	11.6	2,167	2,178	12.3	1,014	1,017
35-39	10.9	2,044	1,995	10.1	835	819
40-44	12.3	2,300	2,225	11.6	956	932
45-49	11.2	2,093	2,060	9.6	792	814
Marital status						
Never married	30.8	5,783	5,926	38.6	3,181	3,247
Married	61.4	11,515	11,439	58.4	4,815	4,755
Living together	0.6	112	97	0.4	37	40
Divorced/separated	4.2	781	738	1.8	152	147
Widowed	3.0	564	554	0.7	54	50
Residence						
Urban	21.0	3,936	6,077	20.6	1,697	2,606
Rural	79.0	14,818	12,677	79.4	6,542	5,633
Province						
Banteay Mean Chey	3.8	719	919	3.3	275	355
Kampong Cham	11.3	2,111	909	12.0	990	403
Kampong Chhnang	3.9	739	1,132	4.1	341	497
Kampong Speu	5.7	1,060	958	5.7	468	399
Kampong Thom	5.0	935	969	4.7	390	407
Kandal	10.2	1,920	992	9.7	796	418
Kratie	2.3	438	937	2.3	191	413
Phnom Penh	11.6	2,183	1,376	11.5	945	592
Prey Veng	7.1	1,341	874	7.3	598	388
Pursat	2.8	534	847	3.1	256	397
Siem Reap	6.6	1,233	985	6.3	517	424
Svay Rieng	4.0	753	991	4.0	331	425
Takeo	6.3	1,175	901	6.4	525	399
Otdar Mean Chey	1.3	252	947	1.5	122	459
Battambang/Pailin	7.0	1,320	879	7.3	603	390
Kampot/Kep	4.8	891	910	4.4	362	381
Preah Sihanouk/Koh Kong	2.3	439	1,088	2.5	203	526
Preah Vihear/Steung Treng	2.3	430	1,054	2.3	193	476
Mondol Kiri/Rattanak Kiri	1.5	281	1,086	1.6	132	490
Education						
No schooling	15.9	2,973	3,203	7.8	641	676
Primary	49.4	9,265	8,796	41.2	3,394	3,354
Secondary and higher	34.7	6,516	6,755	51.0	4,205	4,209
Wealth quintile						
Lowest	18.1	3,388	3,260	17.6	1,454	1,412
Second	18.7	3,516	3,159	18.7	1,544	1,420
Middle	19.2	3,594	3,242	19.9	1,637	1,451
Fourth	20.4	3,827	3,735	20.6	1,696	1,661
Highest	23.6	4,428	5,358	23.2	1,908	2,295
Religion						
Buddhist	97.3	18,245	17,799	97.3	8,020	7,812
Moslem	1.4	259	312	1.1	91	123
Christian	0.5	92	111	0.6	49	59
Other	0.8	156	528	0.9	77	243
Total	100.0	18,754	18,754	100.0	8,239	8,239

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

4.2 EDUCATIONAL ATTAINMENT AND LITERACY

Tables 4.2.1 and 4.2.2 present a detailed distribution of educational attainment among Cambodian women and men according to background characteristics. The general pattern evident in Table 4.2.1 indicates a decrease in the proportion of women with no schooling from the oldest to the youngest cohorts. Men, with the exception of those in the 40-44 age group, exhibit the same pattern (Table 4.2.2). Women born during the reign of the Khmer Rouge (those currently age 30-34) are

somewhat more likely than the surrounding age groups to have no schooling. Men born during the time of the Khmer Rouge as well as those born just before (men currently age 30-39) are also more likely to have no schooling. The data presented in Tables 4.2.1 and 4.2.2 provide evidence of an increase in educational attainment among the youngest age cohort. For example, 56 percent of women age 15-19 have attended some secondary school, as compared with only 34 percent of women age 20-24. A similar trend is seen in young men, with 60 percent of those age 15-19 and 39 percent of those age 20-24 having attended some secondary school.

Table 4.2.1 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, Cambodia 2010

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No schooling	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	6.1	26.5	11.3	45.9	5.1	5.0	100.0	6.5	6,889
15-19	3.5	22.3	11.1	56.2	4.2	2.6	100.0	7.0	3,734
20-24	9.1	31.6	11.5	33.6	6.2	8.0	100.0	5.8	3,155
25-29	15.4	45.4	9.4	21.2	4.4	4.1	100.0	4.2	3,262
30-34	20.9	48.9	6.9	18.8	3.0	1.5	100.0	3.4	2,167
35-39	19.3	49.4	6.1	21.5	2.5	1.2	100.0	3.4	2,044
40-44	21.3	53.4	4.8	17.2	2.1	1.1	100.0	2.9	2,300
45-49	34.1	54.5	2.3	8.1	0.4	0.6	100.0	1.6	2,093
Residence									
Urban	6.6	28.7	7.3	36.6	9.2	11.6	100.0	6.8	3,936
Rural	18.3	44.6	8.3	25.8	2.1	0.8	100.0	3.7	14,818
Province									
Banteay Mean Chey	18.1	47.1	6.5	22.2	4.6	1.4	100.0	3.3	719
Kampong Cham	20.0	43.3	9.0	24.2	1.8	1.7	100.0	3.5	2,111
Kampong Chhnang	15.3	52.4	8.2	21.5	1.9	0.8	100.0	3.4	739
Kampong Speu	11.8	41.3	9.2	34.1	2.7	0.9	100.0	4.7	1,060
Kampong Thom	19.7	48.0	7.0	21.7	2.2	1.4	100.0	3.2	935
Kandal	9.4	40.4	8.9	37.0	2.7	1.6	100.0	5.0	1,920
Kratie	20.5	42.2	7.7	24.7	4.4	0.6	100.0	3.7	438
Phnom Penh	4.2	26.5	6.4	35.9	10.7	16.2	100.0	7.5	2,183
Prey Veng	21.4	45.7	8.5	21.5	2.2	0.6	100.0	3.6	1,341
Pursat	16.7	44.1	6.1	27.3	3.6	2.3	100.0	3.8	534
Siem Reap	21.3	45.9	7.0	20.6	3.8	1.4	100.0	2.9	1,233
Svay Rieng	20.7	43.0	6.7	27.5	1.5	0.6	100.0	3.3	753
Takeo	11.5	43.4	11.4	28.6	2.9	2.1	100.0	4.5	1,175
Otdar Mean Chey	25.3	41.4	7.6	23.6	1.6	0.5	100.0	3.0	252
Battambang/Pailin	14.8	38.1	9.4	33.5	2.7	1.6	100.0	4.7	1,320
Kampot/Kep	11.1	44.0	9.2	32.0	2.8	1.0	100.0	4.4	891
Preah Sihanouk/Koh Kong	24.0	35.4	5.3	28.5	3.3	3.4	100.0	3.9	439
Preah Vihear/Steung Treng	26.6	42.8	8.1	19.6	2.1	0.9	100.0	2.8	430
Mondol Kiri/Rattanak Kiri	46.2	32.2	5.6	14.1	1.6	0.4	100.0	1.0	281
Wealth quintile									
Lowest	31.5	51.0	7.1	10.3	0.1	0.0	100.0	1.9	3,388
Second	22.3	51.2	8.5	17.4	0.6	0.1	100.0	2.9	3,516
Middle	14.9	47.5	9.6	25.8	1.7	0.5	100.0	3.9	3,594
Fourth	9.8	37.2	9.3	38.6	4.0	1.2	100.0	5.3	3,827
Highest	4.8	24.5	6.4	42.9	9.8	11.6	100.0	7.4	4,428
Total	15.9	41.3	8.1	28.1	3.6	3.1	100.0	4.2	18,754

[1] Completed 6th grade at the primary level
[2] Completed 12th grade at the secondary level

Urban women have higher levels of education than rural women. More than one-third of urban women have attended some secondary school, as compared with approximately one-fourth of rural women. Tables 4.2.1 and 4.2.2 show great variation in education across provinces. Mondol Kiri/Rattanak Kiri has an exceptionally low rate of school attendance, with 46 percent of women and 22 percent of men having no formal education. By contrast, only 4 percent of women and 2 percent of men in Phnom Penh have no schooling. Median number of years of education completed is highest in Phnom Penh (7.5 for women and 10 for men).

Educational attainment rises dramatically with wealth quintile. Thirty-two percent of women in the lowest quintile have no formal education, as compared with 5 percent of women in the highest wealth quintile. The percentage of women who have attended some secondary school increases from 10 percent in the lowest wealth quintile to 43 percent in the highest. The pattern of variation in educational attainment by wealth among men is similar to that among women.

Table 4.2.2 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, Cambodia 2010

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No schooling	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	3.2	24.2	10.0	50.6	5.4	6.6	100.0	7.0	3,265
15-19	1.7	21.9	9.9	59.5	4.3	2.9	100.0	7.2	1,863
20-24	5.2	27.2	10.1	38.9	6.9	11.7	100.0	6.8	1,402
25-29	8.1	36.4	7.7	33.8	5.6	8.4	100.0	5.7	1,377
30-34	10.5	39.8	7.1	32.3	4.5	5.8	100.0	5.0	1,014
35-39	11.6	34.5	8.2	34.1	5.4	6.3	100.0	5.5	835
40-44	9.6	35.5	4.9	37.7	6.7	5.7	100.0	6.0	956
45-49	16.4	53.0	4.3	21.1	2.1	3.2	100.0	3.0	792
Residence									
Urban	2.5	17.3	4.6	41.3	11.1	23.2	100.0	8.8	1,697
Rural	9.1	37.4	8.8	39.1	3.6	2.0	100.0	5.4	6,542
Province									
Banteay Mean Chey	10.9	35.3	8.5	40.8	2.5	2.0	100.0	5.4	275
Kampong Cham	12.4	34.0	9.5	37.5	3.9	2.6	100.0	5.4	990
Kampong Chhnang	8.9	42.4	10.4	32.2	4.6	1.5	100.0	4.8	341
Kampong Speu	6.1	29.4	8.2	48.7	3.8	3.8	100.0	6.5	468
Kampong Thom	11.0	46.2	7.5	29.4	3.9	2.0	100.0	4.3	390
Kandal	3.0	30.4	7.1	50.0	5.6	3.9	100.0	6.7	796
Kratie	9.3	41.6	9.3	32.8	5.5	1.6	100.0	4.9	191
Phnom Penh	2.2	13.2	2.4	39.6	10.6	32.0	100.0	10.0	945
Prey Veng	8.9	35.2	10.1	39.8	4.5	1.4	100.0	5.6	598
Pursat	9.7	39.2	8.1	33.5	5.6	4.0	100.0	5.1	256
Siem Reap	14.7	39.2	9.4	28.0	4.9	3.8	100.0	4.5	517
Svay Rieng	6.8	42.8	2.8	42.4	2.1	3.1	100.0	5.1	331
Takeo	3.4	31.4	9.1	50.0	3.4	2.7	100.0	6.5	525
Otdar Mean Chey	11.5	40.7	10.2	31.8	4.8	1.0	100.0	4.8	122
Battambang/Pailin	2.2	30.9	9.4	47.2	5.5	4.9	100.0	6.6	603
Kampot/Kep	5.6	35.1	11.2	39.7	4.5	4.0	100.0	5.7	362
Preah Sihanouk/Koh Kong	11.9	32.4	7.0	34.9	7.4	6.5	100.0	5.8	203
Preah Vihear/Steung Treng	14.9	49.7	7.1	22.9	4.6	0.8	100.0	3.5	193
Mondol Kiri/Rattanak Kiri	22.2	41.5	8.3	23.5	2.9	1.5	100.0	3.4	132
Wealth quintile									
Lowest	18.7	51.3	8.8	20.5	0.6	0.1	100.0	3.1	1,454
Second	9.6	47.1	8.6	32.1	2.1	0.5	100.0	4.4	1,544
Middle	7.8	35.3	11.3	41.7	2.6	1.2	100.0	5.6	1,637
Fourth	3.8	26.4	7.5	52.8	6.3	3.2	100.0	6.9	1,696
Highest	1.5	12.7	4.1	46.4	12.3	23.1	100.0	9.1	1,908
Total	7.8	33.3	7.9	39.5	5.1	6.4	100.0	6.1	8,239

[1] Completed 6th grade at the primary level
[2] Completed 12th grade at the secondary level

The 2010 CDHS assessed literacy levels among respondents who had never been to school or who had attended only primary school by asking them to read all or part of a sentence in whatever language they were familiar. Those with at least a middle school education were assumed to be literate. Literacy results are shown in Tables 4.3.1 and 4.3.2.

Table 4.3.1 shows that more than 70 percent of women are literate, and Table 4.3.2 shows that 83 percent of men are literate. Literacy is associated with access to education. In general, for both women and men, younger age groups are more likely to be literate than older age groups. Illiteracy decreases from 44 percent among women age 45-49 to 10 percent among women age 15-19. However, illiteracy is higher among women in the 30-34 age group than in the surrounding age cohorts. As can be seen in Table 4.2.1, these women were less likely to have attended school than women in the age groups before and after them. A similar pattern is observed in men.

Table 4.3.1 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, Cambodia 2010

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percent-age literate[1]	Number
Age										
15-19	63.0	15.2	11.6	10.1	0.0	0.1	0.0	100.0	89.8	3,734
20-24	47.8	19.2	16.1	16.9	0.0	0.0	0.0	100.0	83.1	3,155
25-29	29.8	21.8	21.0	27.4	0.0	0.0	0.0	100.0	72.6	3,262
30-34	23.3	20.2	21.1	35.4	0.0	0.0	0.0	100.0	64.6	2,167
35-39	25.2	21.6	21.5	31.6	0.0	0.1	0.0	100.0	68.2	2,044
40-44	20.5	20.8	24.6	33.6	0.0	0.4	0.1	100.0	66.0	2,300
45-49	9.2	18.9	27.2	44.2	0.0	0.5	0.0	100.0	55.3	2,093
Residence										
Urban	57.4	19.5	13.3	9.7	0.0	0.0	0.1	100.0	90.2	3,936
Rural	28.7	19.4	21.1	30.6	0.0	0.2	0.0	100.0	69.2	14,818
Province										
Banteay Mean Chey	28.3	22.7	17.4	31.5	0.1	0.0	0.0	100.0	68.4	719
Kampong Cham	27.7	23.9	18.0	30.2	0.0	0.2	0.0	100.0	69.6	2,111
Kampong Chhnang	24.1	21.3	27.2	27.2	0.0	0.0	0.1	100.0	72.7	739
Kampong Speu	37.7	14.9	22.7	24.4	0.0	0.3	0.0	100.0	75.3	1,060
Kampong Thom	25.3	16.0	28.2	29.7	0.0	0.9	0.0	100.0	69.4	935
Kandal	41.3	25.0	12.5	21.2	0.0	0.0	0.0	100.0	78.8	1,920
Kratie	29.7	15.0	25.6	29.7	0.0	0.0	0.0	100.0	70.3	438
Phnom Penh	62.9	18.6	12.6	5.9	0.0	0.0	0.1	100.0	94.0	2,183
Prey Veng	24.3	19.5	23.3	32.9	0.0	0.0	0.0	100.0	67.1	1,341
Pursat	33.1	11.9	27.0	27.8	0.0	0.0	0.2	100.0	72.0	534
Siem Reap	25.8	16.2	29.4	28.5	0.0	0.1	0.0	100.0	71.4	1,233
Svay Rieng	29.6	11.7	18.8	39.9	0.0	0.0	0.0	100.0	60.1	753
Takeo	33.6	25.0	11.2	29.8	0.0	0.4	0.0	100.0	69.8	1,175
Otdar Mean Chey	25.7	9.5	31.8	32.6	0.0	0.4	0.0	100.0	67.0	252
Battambang/Pailin	37.8	17.0	23.5	21.6	0.0	0.2	0.0	100.0	78.2	1,320
Kampot/Kep	35.8	21.5	15.6	27.1	0.0	0.0	0.0	100.0	72.9	891
Preah Sihanouk/Koh Kong	35.2	13.8	21.4	29.5	0.0	0.0	0.0	100.0	70.5	439
Preah Vihear/Steung Treng	22.5	21.1	17.2	39.2	0.1	0.0	0.0	100.0	60.7	430
Mondol Kiri/Rattanak Kiri	16.1	19.4	10.7	53.7	0.1	0.0	0.0	100.0	46.2	281
Wealth quintile										
Lowest	10.4	16.7	22.8	49.8	0.0	0.2	0.0	100.0	49.9	3,388
Second	18.0	21.0	23.6	37.1	0.0	0.2	0.0	100.0	62.7	3,516
Middle	28.0	20.7	23.7	27.4	0.0	0.2	0.0	100.0	72.5	3,594
Fourth	43.7	21.4	17.9	16.8	0.0	0.0	0.0	100.0	83.1	3,827
Highest	64.3	17.4	11.6	6.6	0.0	0.1	0.1	100.0	93.2	4,428
Total	34.7	19.4	19.5	26.2	0.0	0.1	0.0	100.0	73.6	18,754

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

Ninety percent of women residing in urban areas are literate, as compared with 69 percent of their rural counterparts. Similarly, urban men show higher rates of literacy than rural men (94 percent and 80 percent, respectively). Differences in literacy across provinces are marked, with the highest literacy rate among women in Phnom Penh (94 percent) and the lowest among women in Mondol Kiri/Rattanak Kiri (46 percent). Among men, literacy is highest in Battambang/Pailin (97 percent) and lowest in Kampong Cham (73 percent). Literacy levels increase along with wealth status among both women and men. For example, literacy levels almost double from 50 percent among women in the lowest wealth quintile to 93 percent among women in the highest wealth quintile.

Women's overall illiteracy rate has continued to decline since the 2000 CDHS (32 percent in 2000 versus 31 percent in 2005 and 26 percent in 2010). A large decrease in illiteracy has occurred among the 15-19 age group within the past 10 years. In 2000, 25 percent of women age 15-19 were illiterate, as compared with 16 percent in 2005 and 10 percent of women in the current survey. This reflects an increase in the level of educational attainment in this cohort since the previous two surveys (see Table 4.2.1). Changes over time in illiteracy rates among Cambodian men cannot be assessed because they were not measured in the previous surveys.

Table 4.3.2 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, Cambodia 2010

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	Blind/ visually impaired	Missing	Total	Percent-age literate[1]	Number
Age									
15-19	66.6	8.8	13.9	10.8	0.0	0.0	100.0	89.2	1,863
20-24	57.4	11.1	18.4	12.9	0.0	0.2	100.0	86.9	1,402
25-29	47.8	13.9	21.2	17.0	0.0	0.0	100.0	83.0	1,377
30-34	42.6	14.5	19.9	22.9	0.1	0.1	100.0	77.0	1,014
35-39	45.7	12.2	20.9	21.2	0.0	0.0	100.0	78.8	835
40-44	50.1	14.7	16.9	18.2	0.2	0.0	100.0	81.7	956
45-49	26.3	15.9	32.3	25.4	0.1	0.0	100.0	74.5	792
Residence									
Urban	75.6	7.2	10.9	6.2	0.0	0.1	100.0	93.7	1,697
Rural	44.7	13.8	21.7	19.8	0.1	0.0	100.0	80.1	6,542
Province									
Banteay Mean Chey	45.3	28.1	6.9	19.0	0.2	0.5	100.0	80.3	275
Kampong Cham	44.1	9.4	19.2	27.4	0.0	0.0	100.0	72.6	990
Kampong Chhnang	38.4	27.0	20.7	14.0	0.0	0.0	100.0	86.0	341
Kampong Speu	56.3	15.1	18.0	10.3	0.2	0.0	100.0	89.5	468
Kampong Thom	35.3	23.3	15.6	25.8	0.0	0.0	100.0	74.2	390
Kandal	59.5	17.4	4.1	19.0	0.0	0.0	100.0	81.0	796
Kratie	39.8	7.3	30.6	22.0	0.0	0.3	100.0	77.7	191
Phnom Penh	82.3	2.8	9.7	5.3	0.0	0.0	100.0	94.7	945
Prey Veng	45.7	1.0	30.5	22.4	0.3	0.0	100.0	77.3	598
Pursat	43.1	13.9	20.8	22.2	0.0	0.0	100.0	77.8	256
Siem Reap	36.7	11.0	31.2	21.2	0.0	0.0	100.0	78.8	517
Svay Rieng	47.6	20.7	15.9	15.8	0.0	0.0	100.0	84.2	331
Takeo	56.1	19.3	5.8	18.7	0.0	0.0	100.0	81.3	525
Otdar Mean Chey	37.6	30.8	18.0	13.6	0.0	0.0	100.0	86.4	122
Battambang/Pailin	57.5	4.8	34.5	3.1	0.0	0.0	100.0	96.9	603
Kampot/Kep	48.2	7.1	26.7	17.6	0.0	0.4	100.0	82.0	362
Preah Sihanouk/Koh Kong	48.8	15.0	24.9	11.3	0.0	0.0	100.0	88.7	203
Preah Vihear/Steung Treng	28.4	2.1	52.9	16.6	0.0	0.0	100.0	83.4	193
Mondol Kiri/Rattanak Kiri	28.0	22.2	26.2	23.5	0.0	0.0	100.0	76.5	132
Wealth quintile									
Lowest	21.1	14.6	28.8	35.3	0.1	0.0	100.0	64.6	1,454
Second	34.7	15.8	26.5	22.8	0.1	0.1	100.0	77.0	1,544
Middle	45.6	14.0	22.7	17.7	0.0	0.0	100.0	82.3	1,637
Fourth	62.2	12.4	15.3	10.0	0.0	0.1	100.0	89.9	1,696
Highest	81.7	6.8	7.5	3.9	0.0	0.0	100.0	96.1	1,908
Total	51.0	12.5	19.4	17.0	0.0	0.0	100.0	82.9	8,239

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

4.3 ACCESS TO MASS MEDIA

The 2010 CDHS collected information on the exposure of respondents to both broadcast and print media. This information is important because it provides an indication of the exposure of women to mass media that can be used to disseminate family planning, health, and other information. Access to mass media is relatively high in Cambodia. Table 4.4.1 shows that 68 percent of women have some weekly exposure to mass media. Watching television is the most common way of accessing the media: 58 percent of women watch television at least once a week. Listening to the radio is also common (one-third of women listen at least once a week), with newspapers being the least utilized form of media (12 percent read a newspaper at least once a week).

There is no strong trend in access to the three types of media by age. The youngest group of women (15-19 years old) is most likely to access each form of media, particularly television and newspapers. However, women in the oldest age group are not always the least likely to access media. Women in the 45-49 age group are least likely to read a newspaper at least once a week (5 percent), and women ages 35-39 are least likely to listen to the radio (28 percent).

Residence, by contrast, is associated with differences in media exposure. Urban women have better access to television and newspaper sources than their rural counterparts. The proportion of

women who listen to the radio is the same in urban and rural areas (34 percent). The greatest differential between residence and media usage is found in those who watch television at least once a week; urban women are 1.7 times more likely than rural women to watch television weekly (85 percent versus 50 percent).

Media exposure among women varies by province as well. Women residing in Kratie have the greatest exposure to all three media (16 percent), followed by women in Preah Sihanouk/Koh Kong (14 percent). Women residing in Banteay Mean Chey are least likely to be exposed to the media (59 percent have no weekly access to media).

Table 4.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Cambodia 2010

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media at least once a week	No media at least once a week	Number
Age						
15-19	16.7	64.2	42.3	9.3	24.5	3,734
20-24	14.4	60.9	36.8	8.8	29.5	3,155
25-29	11.5	59.3	33.7	5.5	30.3	3,262
30-34	10.2	53.6	30.0	6.7	37.7	2,167
35-39	9.8	53.0	27.9	5.4	38.6	2,044
40-44	7.9	50.6	29.9	3.8	39.3	2,300
45-49	4.5	53.2	31.8	2.2	36.1	2,093
Residence						
Urban	15.9	84.8	33.9	9.1	11.8	3,936
Rural	10.3	50.2	34.3	5.6	38.0	14,818
Province						
Banteay Mean Chey	4.6	35.8	12.7	1.9	59.1	719
Kampong Cham	8.7	38.5	26.5	3.0	49.1	2,111
Kampong Chhnang	5.5	48.4	40.9	3.9	39.2	739
Kampong Speu	10.9	74.1	53.1	7.8	17.8	1,060
Kampong Thom	21.9	54.4	42.3	12.4	31.1	935
Kandal	11.2	75.2	41.3	8.8	17.7	1,920
Kratie	24.1	47.7	46.2	16.2	36.2	438
Phnom Penh	11.8	92.9	28.0	5.6	6.1	2,183
Prey Veng	8.6	69.5	32.9	5.4	23.7	1,341
Pursat	15.5	67.2	45.4	11.4	23.3	534
Siem Reap	6.4	39.2	31.2	4.4	51.9	1,233
Svay Rieng	6.0	46.2	18.9	2.2	48.5	753
Takeo	16.1	44.0	31.0	9.2	44.9	1,175
Otdar Mean Chey	11.9	31.5	25.8	3.0	52.7	252
Battambang/Pailin	15.2	65.1	48.3	8.7	20.1	1,320
Kampot/Kep	12.9	31.8	23.5	1.1	46.3	891
Preah Sihanouk/Koh Kong	20.7	67.7	40.4	13.9	22.5	439
Preah Vihear/Steung Treng	3.8	26.5	32.8	1.4	51.5	430
Mondol Kiri/Rattanak Kiri	10.2	35.8	33.4	4.3	46.4	281
Education						
No schooling	0.3	35.7	20.9	0.2	55.5	2,973
Primary	7.4	52.0	32.0	3.7	36.9	9,265
Secondary and higher	22.3	75.2	43.5	12.8	15.8	6,516
Wealth quintile						
Lowest	4.1	25.2	22.5	1.6	61.7	3,388
Second	6.9	41.5	30.2	3.1	44.9	3,516
Middle	9.0	53.5	35.9	4.7	33.5	3,594
Fourth	14.3	70.2	41.3	8.5	21.3	3,827
Highest	20.2	87.1	38.9	12.0	9.2	4,428
Total	11.5	57.5	34.2	6.3	32.5	18,754

Media exposure increases with both the educational level and wealth quintile of the respondent. For example, 87 percent of women in the highest wealth quintile watch television at least once per week, as compared with 25 percent of women in the lowest wealth quintile. Similarly, 75 percent of women with a secondary education or higher and 36 percent of women with no schooling watch television once a week. In addition, 22 percent of women with a secondary education or higher read a newspaper at least once a week, as compared with 7 percent of women with a primary school education.

Table 4.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Cambodia 2010

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media at least once a week	No media at least once a week	Number
Age						
15-19	18.4	61.7	44.2	10.1	27.3	1,863
20-24	22.5	57.6	47.3	12.5	28.0	1,402
25-29	17.6	55.0	42.0	8.0	31.1	1,377
30-34	15.1	56.6	41.1	9.3	32.7	1,014
35-39	16.2	52.0	40.7	9.1	34.7	835
40-44	18.2	53.3	44.7	10.4	32.0	956
45-49	13.0	55.5	50.0	8.0	29.6	792
Residence						
Urban	46.3	66.8	50.2	19.4	12.6	1,697
Rural	10.4	54.1	42.7	7.3	34.8	6,542
Province						
Banteay Mean Chey	23.5	91.7	68.7	19.7	6.0	275
Kampong Cham	1.1	9.4	11.1	0.3	82.5	990
Kampong Chhnang	11.7	53.8	47.9	8.1	31.5	341
Kampong Speu	11.9	66.3	54.6	9.1	19.4	468
Kampong Thom	9.0	81.0	64.5	5.9	7.6	390
Kandal	13.0	61.3	44.8	9.2	29.0	796
Kratie	12.3	32.7	43.5	6.1	39.5	191
Phnom Penh	60.0	55.2	44.5	15.2	10.1	945
Prey Veng	14.0	93.5	70.5	11.6	3.7	598
Pursat	7.2	53.8	28.9	4.8	35.9	256
Siem Reap	6.4	46.0	26.4	4.1	45.7	517
Svay Rieng	16.2	74.4	51.2	9.7	14.3	331
Takeo	2.3	44.2	25.6	1.2	44.0	525
Otdar Mean Chey	23.5	49.0	61.9	14.4	21.5	122
Battambang/Pailin	34.8	86.0	77.1	30.4	7.6	603
Kampot/Kep	8.8	38.1	24.4	2.3	46.0	362
Preah Sihanouk/Koh Kong	6.6	66.2	23.0	4.0	31.0	203
Preah Vihear/Steung Treng	38.4	83.2	90.6	36.0	6.3	193
Mondol Kiri/Rattanak Kiri	4.6	15.0	21.5	0.7	65.0	132
Education						
No schooling	0.5	36.1	26.4	0.5	54.6	641
Primary	6.1	51.3	38.9	4.1	37.6	3,394
Secondary and higher	29.9	64.2	51.2	15.8	20.6	4,205
Wealth quintile						
Lowest	3.9	32.9	30.7	2.4	54.3	1,454
Second	6.3	49.4	41.4	3.6	35.7	1,544
Middle	8.6	56.1	44.4	6.0	33.9	1,637
Fourth	16.8	68.3	48.8	12.4	23.7	1,696
Highest	46.4	70.9	52.5	21.4	10.1	1,908
Total	17.8	56.7	44.2	9.8	30.2	8,239

A comparison of Tables 4.4.1 and 4.4.2 shows that women and men have relatively the same access to all three media at least once per week (6 percent of women versus 10 percent of men). The slight difference between the levels of exposure can be explained by greater access of men to printed material: 18 percent of men read a newspaper at least once per week, as compared with 12 percent of women.

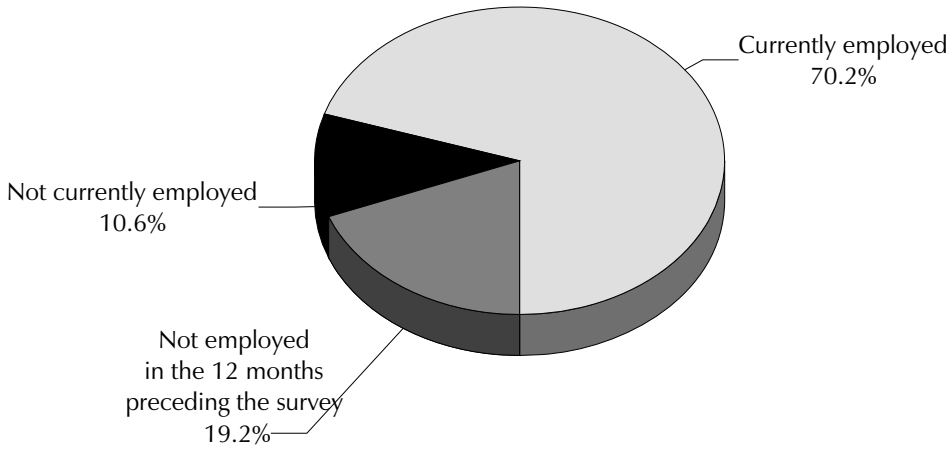
In general, rates of media utilization have decreased since 2005, when nearly four in five women were exposed to some source of mass media. Specifically, the greatest difference between media exposure in the 2005 CDHS and the 2010 CDHS was found among women who listened to the radio at least once a week. In 2005, half of the women interviewed listened to the radio once a week, whereas only 34 percent of women in 2010 reported listening to the radio on a weekly basis. There was a similar decrease in men's exposure to mass media between the 2005 CDHS and the 2010 CDHS. In 2005, only 18 percent of men were not exposed to a mass media source on a weekly basis, whereas this proportion increased to 30 percent in 2010.

4.4 EMPLOYMENT

4.4.1 Employment Status

The 2010 CDHS included a number of questions regarding respondents' employment status, including whether they were working in the seven days preceding the survey and, if not, whether they had worked in the 12 months before the survey. Employment status results for women and men are presented in Tables 4.5.1 and 4.5.2. At the time of the survey, 70 percent of women were currently employed, and an additional 11 percent were not employed but had worked sometime during the preceding 12 months (Figure 4.1). The proportion of women currently employed generally increases with increasing age. A similar pattern is observed for men's employment status. Women who are divorced, separated, or widowed are more likely to be employed than other women. Among men, in contrast, those who are married are more likely to be employed than those who are divorced, separated, or widowed and those who have never married.

Figure 4.1 **Women's Employment Status in the Past 12 Months**



CDHS 2010

Urban and rural women are roughly equally likely to be currently employed (66 percent versus 71 percent). However, rural women are almost four times more likely than urban women to have worked in the past 12 months (13 percent versus 3 percent). As a result, urban women are more likely than rural women not to have been employed at all in the 12 months preceding the survey (31 percent versus 16 percent). Women in Pursat are most likely to be currently employed (90 percent). In contrast, women in Phnom Penh and Kratie are most likely not to have been employed at any time in the 12 months preceding the survey (32 percent and 30 percent, respectively). Women with a secondary education or higher and those in the highest wealth quintile are most likely to have not worked in the 12 months preceding the survey.

The proportion of men currently employed is somewhat higher than that of women (81 percent versus 70 percent). Employment status differentials for men are similar to those for women. As with women, urban men are more likely not to have worked in the 12 months preceding the survey, as are men with a secondary education or higher and those in the highest wealth quintile. The proportion of men currently employed ranges from a low of 65 percent in Kampot/Kep to a high of 97 percent in Preah Vihear/Steung Treng. Kampong Chhnang has the highest percentage of men who are not currently employed but have worked at some point in the previous 12 months, and Phnom Penh has the lowest.

The level of female employment in 2010 is similar to that in 2005; however, there is a difference between the two surveys in the proportions of women who were not employed at the time of data collection but had worked sometime during the preceding 12 months. In 2005, 15 percent of women in Cambodia were not employed at the time of the interview but had been employed in the previous 12 months, whereas this proportion decreased to 11 percent of women in 2010. Levels of employment for men have not changed since 2005.

Table 4.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Cambodia 2010

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
	Currently employed[1]	Not currently employed				
Age						
15-19	51.7	7.2	41.0	0.0	100.0	3,734
20-24	69.2	11.2	19.6	0.0	100.0	3,155
25-29	73.3	13.0	13.7	0.0	100.0	3,262
30-34	76.1	10.7	13.2	0.0	100.0	2,167
35-39	77.8	10.7	11.4	0.1	100.0	2,044
40-44	78.4	11.0	10.6	0.0	100.0	2,300
45-49	77.3	11.0	11.7	0.0	100.0	2,093
Marital status						
Never married	63.2	5.8	31.0	0.0	100.0	5,783
Married or living together	72.5	12.9	14.5	0.0	100.0	11,626
Divorced/separated/widowed	80.3	10.4	9.3	0.0	100.0	1,345
Number of living children						
0	64.5	7.1	28.4	0.0	100.0	6,810
1-2	71.8	12.6	15.6	0.0	100.0	6,107
3-4	75.4	11.8	12.7	0.1	100.0	3,965
5+	74.6	13.6	11.8	0.0	100.0	1,871
Residence						
Urban	66.2	3.2	30.6	0.0	100.0	3,936
Rural	71.2	12.5	16.2	0.0	100.0	14,818
Province						
Banteay Mean Chey	70.3	9.5	20.1	0.0	100.0	719
Kampong Cham	74.7	12.6	12.7	0.1	100.0	2,111
Kampong Chhnang	70.6	16.0	13.4	0.0	100.0	739
Kampong Speu	66.5	20.3	13.2	0.0	100.0	1,060
Kampong Thom	77.7	13.2	9.1	0.0	100.0	935
Kandal	67.8	7.8	24.5	0.0	100.0	1,920
Kratie	63.5	6.6	29.9	0.0	100.0	438
Phnom Penh	66.6	1.3	32.1	0.0	100.0	2,183
Prey Veng	68.5	19.4	12.2	0.0	100.0	1,341
Pursat	89.6	3.1	7.3	0.0	100.0	534
Siem Reap	64.5	13.5	22.1	0.0	100.0	1,233
Svay Rieng	64.2	24.8	10.9	0.1	100.0	753
Takeo	77.7	5.7	16.6	0.0	100.0	1,175
Otdar Mean Chey	68.2	24.5	7.4	0.0	100.0	252
Battambang/Pailin	64.2	7.0	28.7	0.0	100.0	1,320
Kampot/Kep	73.9	5.2	20.9	0.0	100.0	891
Preah Sihanouk/Koh Kong	60.2	11.0	28.7	0.0	100.0	439
Preah Vihear/Steung Treng	79.8	5.9	14.2	0.0	100.0	430
Mondol Kiri/Rattanak Kiri	78.9	3.8	17.3	0.0	100.0	281
Education						
No schooling	75.2	12.9	11.9	0.0	100.0	2,973
Primary	74.0	12.7	13.3	0.0	100.0	9,265
Secondary and higher	62.5	6.5	31.0	0.0	100.0	6,516
Wealth quintile						
Lowest	71.5	16.3	12.2	0.0	100.0	3,388
Second	72.3	14.5	13.2	0.0	100.0	3,516
Middle	71.1	12.8	16.0	0.1	100.0	3,594
Fourth	68.8	8.8	22.4	0.0	100.0	3,827
Highest	67.9	2.7	29.4	0.0	100.0	4,428
Total	70.2	10.6	19.2	0.0	100.0	18,754

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

Table 4.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Cambodia 2010

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of men
	Currently employed[1]	Not currently employed			
Age					
15-19	50.3	8.1	41.6	100.0	1,863
20-24	78.5	5.4	16.0	100.0	1,402
25-29	91.7	5.4	2.9	100.0	1,377
30-34	95.0	4.8	0.2	100.0	1,014
35-39	94.6	4.5	0.9	100.0	835
40-44	93.9	4.5	1.6	100.0	956
45-49	92.4	6.0	1.6	100.0	792
Marital status					
Never married	60.9	7.1	32.1	100.0	3,181
Married or living together	94.1	4.9	0.9	100.0	4,852
Divorced/separated/widowed	87.9	6.7	5.4	100.0	206
Number of living children					
0	64.8	6.9	28.3	100.0	3,656
1-2	94.7	4.4	0.9	100.0	2,338
3-4	93.7	5.7	0.6	100.0	1,539
5+	93.2	4.9	1.8	100.0	706
Residence					
Urban	75.3	1.8	22.8	100.0	1,697
Rural	82.6	6.8	10.5	100.0	6,542
Province					
Banteay Mean Chey	85.9	4.0	10.0	100.0	275
Kampong Cham	82.1	0.7	17.2	100.0	990
Kampong Chhnang	69.2	20.8	10.0	100.0	341
Kampong Speu	82.9	1.1	16.0	100.0	468
Kampong Thom	87.6	8.8	3.6	100.0	390
Kandal	85.4	1.6	13.0	100.0	796
Kratie	94.7	4.3	1.0	100.0	191
Phnom Penh	73.0	0.0	27.0	100.0	945
Prey Veng	96.5	1.9	1.5	100.0	598
Pursat	93.1	0.6	6.3	100.0	256
Siem Reap	79.6	12.6	7.8	100.0	517
Svay Rieng	66.7	20.4	12.9	100.0	331
Takeo	73.1	19.5	7.4	100.0	525
Otdar Mean Chey	89.2	5.1	5.6	100.0	122
Battambang/Pailin	80.0	1.5	18.5	100.0	603
Kampot/Kep	65.4	15.1	19.5	100.0	362
Preah Sihanouk/Koh Kong	75.0	0.4	24.6	100.0	203
Preah Vihear/Steung Treng	97.4	1.1	1.5	100.0	193
Mondol Kiri/Rattanak Kiri	89.0	6.4	4.6	100.0	132
Education					
No schooling	91.9	6.3	1.8	100.0	641
Primary	89.4	6.3	4.2	100.0	3,394
Secondary and higher	72.8	5.3	21.9	100.0	4,205
Wealth quintile					
Lowest	86.4	7.5	6.0	100.0	1,454
Second	83.3	9.2	7.5	100.0	1,544
Middle	83.8	7.3	8.8	100.0	1,637
Fourth	78.2	4.4	17.4	100.0	1,696
Highest	75.6	1.7	22.7	100.0	1,908
Total	81.1	5.8	13.1	100.0	8,239

[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.

4.4.2 Occupation

Respondents who were currently employed or had worked in the 12 months preceding the survey were further asked to specify their occupation. Tables 4.6.1 and 4.6.2 show data on occupation of employed women and men, respectively. Most employed persons are engaged in the agricultural sector, including 56 percent of women and 59 percent of men. More than one-fifth of women are employed in sales and services, along with 10 percent of men. Fifteen percent of women are employed in skilled manual labor and 2 percent are employed in unskilled manual labor. Men are more likely than women to be employed in skilled manual labor, with 21 percent engaged in this type of occupation. Four percent of women are employed in professional, technical, and managerial fields.

Table 4.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Cambodia 2010

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agri-culture	Missing	Total	Number of women
Age									
15-19	1.9	0.9	15.9	24.5	3.5	53.2	0.1	100.0	2,201
20-24	6.4	1.4	22.3	21.2	2.0	46.6	0.1	100.0	2,535
25-29	6.6	1.4	23.4	16.0	1.7	50.8	0.1	100.0	2,814
30-34	2.9	0.8	24.0	11.9	1.4	59.0	0.0	100.0	1,881
35-39	3.7	0.6	23.0	9.2	1.6	61.8	0.1	100.0	1,808
40-44	4.2	0.5	22.5	8.3	1.4	63.1	0.0	100.0	2,055
45-49	2.7	0.3	23.5	6.6	1.7	65.1	0.0	100.0	1,848
Marital status									
Never married	6.5	1.5	19.2	23.8	3.9	45.0	0.1	100.0	3,989
Married or living together	3.5	0.6	22.9	11.0	1.1	60.8	0.1	100.0	9,933
Divorced/separated/widowed	3.1	1.2	24.4	13.1	2.5	55.6	0.0	100.0	1,220
Number of living children									
0	6.4	1.4	19.8	22.9	3.6	45.9	0.1	100.0	4,879
1-2	4.3	1.1	24.5	13.7	1.2	55.0	0.1	100.0	5,152
3-4	2.7	0.2	24.2	8.1	1.3	63.5	0.1	100.0	3,460
5+	1.3	0.1	16.6	6.3	0.8	75.0	0.0	100.0	1,651
Residence									
Urban	13.4	2.8	45.5	23.6	6.6	8.1	0.1	100.0	2,733
Rural	2.3	0.5	16.9	12.6	0.9	66.8	0.1	100.0	12,409
Province									
Banteay Mean Chey	3.5	0.7	25.3	12.5	2.3	55.7	0.0	100.0	574
Kampong Cham	2.4	0.1	18.1	8.4	0.8	70.3	0.0	100.0	1,842
Kampong Chhnang	1.1	0.3	14.2	12.4	0.5	71.5	0.0	100.0	640
Kampong Speu	1.2	0.4	17.1	25.9	0.6	54.8	0.0	100.0	920
Kampong Thom	2.9	0.6	20.2	6.8	0.8	68.6	0.0	100.0	849
Kandal	3.5	0.6	26.6	38.3	3.0	28.1	0.0	100.0	1,450
Kratie	4.1	0.4	21.0	5.1	0.8	68.5	0.1	100.0	307
Phnom Penh	17.1	3.2	40.1	30.8	6.8	1.8	0.1	100.0	1,483
Prey Veng	1.6	0.3	15.8	5.4	0.5	76.3	0.1	100.0	1,178
Pursat	4.1	0.0	17.5	3.6	0.6	74.3	0.0	100.0	495
Siem Reap	4.1	0.9	22.0	8.8	3.6	60.4	0.2	100.0	961
Svay Rieng	1.7	0.8	11.1	8.6	0.3	77.4	0.0	100.0	670
Takeo	2.9	0.2	22.4	16.9	0.8	56.8	0.0	100.0	981
Otdar Mean Chey	2.1	0.8	18.0	4.8	1.0	73.4	0.0	100.0	233
Battambang/Pailin	5.3	2.7	23.8	8.3	3.3	56.2	0.5	100.0	941
Kampot/Kep	3.2	1.2	17.9	5.4	0.8	71.3	0.1	100.0	705
Preah Sihanouk/Koh Kong	4.0	1.5	47.5	13.0	2.8	31.3	0.0	100.0	313
Preah Vihear/Steung Treng	2.0	0.4	12.1	2.4	0.8	82.1	0.2	100.0	369
Mondol Kiri/Rattanak Kiri	2.9	0.4	14.1	5.2	0.5	77.0	0.0	100.0	233
Education									
No schooling	0.5	0.0	13.5	6.4	1.8	77.7	0.2	100.0	2,620
Primary	1.0	0.2	20.0	13.6	2.0	63.2	0.0	100.0	8,029
Secondary and higher	12.4	2.6	30.7	21.1	1.9	31.1	0.1	100.0	4,493
Wealth quintile									
Lowest	0.1	0.0	5.9	6.9	1.2	85.8	0.1	100.0	2,976
Second	0.6	0.0	7.8	10.5	0.7	80.4	0.0	100.0	3,053
Middle	2.0	0.1	14.2	14.1	0.7	68.8	0.1	100.0	3,017
Fourth	3.1	0.8	30.7	21.9	1.8	41.6	0.1	100.0	2,971
Highest	15.2	3.5	50.7	19.4	5.1	6.0	0.1	100.0	3,125
Total	4.3	0.9	22.1	14.6	1.9	56.2	0.1	100.0	15,142

Table 4.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Cambodia 2010

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agri-culture	Missing	Total	Number of men
Age									
15-19	1.9	0.8	4.8	18.2	1.7	72.6	0.1	100.0	1,088
20-24	5.0	0.7	10.1	28.0	1.1	55.0	0.0	100.0	1,178
25-29	8.9	1.9	9.3	25.9	0.6	53.4	0.0	100.0	1,337
30-34	7.9	1.7	8.9	21.1	0.9	59.4	0.0	100.0	1,013
35-39	9.9	2.7	11.8	18.6	0.3	56.7	0.0	100.0	827
40-44	9.6	2.4	13.9	18.5	1.3	54.2	0.0	100.0	940
45-49	6.6	1.2	13.1	13.9	1.0	64.2	0.0	100.0	779
Marital status									
Never married	6.1	1.8	7.9	24.1	1.4	58.7	0.0	100.0	2,161
Married or living together	7.6	1.5	10.9	19.2	0.8	59.9	0.0	100.0	4,806
Divorced/separated/widowed	3.6	2.0	10.1	40.3	0.1	43.8	0.1	100.0	194
Number of living children									
0	6.6	1.8	8.6	24.1	1.2	57.7	0.0	100.0	2,621
1-2	7.9	1.9	12.2	22.3	0.8	54.9	0.0	100.0	2,318
3-4	6.8	1.5	11.1	19.2	0.6	60.8	0.0	100.0	1,530
5+	6.3	0.3	5.7	11.5	1.4	74.8	0.0	100.0	693
Residence									
Urban	21.2	6.1	21.6	38.2	1.8	11.2	0.0	100.0	1,310
Rural	3.9	0.6	7.4	17.5	0.8	69.8	0.0	100.0	5,852
Province									
Banteay Mean Chey	6.5	0.9	11.5	21.5	1.7	57.9	0.0	100.0	247
Kampong Cham	4.0	0.1	4.6	19.8	0.8	70.6	0.0	100.0	820
Kampong Chhnang	2.3	0.9	6.1	13.7	0.2	76.8	0.0	100.0	307
Kampong Speu	3.1	1.2	8.7	20.8	0.8	65.5	0.0	100.0	393
Kampong Thom	4.4	0.1	10.3	16.6	0.6	68.0	0.0	100.0	376
Kandal	8.6	0.4	11.0	34.0	2.6	43.3	0.0	100.0	693
Kratie	4.1	0.1	11.8	19.7	0.7	63.6	0.0	100.0	190
Phnom Penh	27.5	8.4	21.6	38.2	1.4	2.9	0.0	100.0	690
Prey Veng	2.7	0.8	7.1	9.1	0.8	79.5	0.0	100.0	589
Pursat	6.8	0.1	4.1	16.4	0.2	72.4	0.0	100.0	240
Siem Reap	6.3	1.6	9.9	20.7	1.1	60.2	0.0	100.0	476
Svay Rieng	5.9	0.7	6.4	11.5	0.3	75.3	0.0	100.0	288
Takeo	3.5	0.4	10.7	21.9	0.9	62.5	0.0	100.0	486
Otdar Mean Chey	3.1	2.2	8.7	10.0	0.3	75.7	0.0	100.0	115
Battambang/Pailin	4.7	2.1	12.5	19.3	0.5	60.9	0.0	100.0	492
Kampot/Kep	4.2	1.7	8.1	25.6	1.0	59.3	0.0	100.0	292
Preah Sihanouk/Koh Kong	10.2	2.7	15.4	28.4	1.0	42.2	0.0	100.0	153
Preah Vihear/Steung Treng	2.3	0.6	5.6	7.7	0.7	83.0	0.1	100.0	190
Mondol Kiri/Rattanak Kiri	5.1	1.9	9.5	10.7	0.1	71.6	1.0	100.0	126
Education									
No schooling	0.5	0.0	3.2	12.9	0.4	83.1	0.0	100.0	629
Primary	2.2	0.1	6.6	18.7	1.1	71.3	0.0	100.0	3,250
Secondary and higher	13.0	3.4	14.7	25.4	1.0	42.5	0.0	100.0	3,283
Wealth quintile									
Lowest	0.9	0.0	1.4	11.2	1.2	85.3	0.0	100.0	1,366
Second	2.1	0.1	3.3	13.9	0.5	80.1	0.0	100.0	1,428
Middle	4.0	0.0	6.3	15.8	0.8	73.1	0.0	100.0	1,493
Fourth	7.0	1.1	10.8	31.8	1.4	47.9	0.0	100.0	1,400
Highest	20.6	6.5	27.6	33.2	1.1	10.9	0.0	100.0	1,474
Total	7.0	1.6	10.0	21.3	1.0	59.1	0.0	100.0	7,162

Residence has an effect on type of occupation. Women and men in urban areas are more likely than those in rural areas to hold jobs in the professional, technical, and managerial; clerical; and sales and services sectors. In contrast, rural women and men are more likely than those in urban areas to be engaged in agricultural work. Those with lower levels of education and those in lower wealth quintiles are also more likely to work in agriculture. For example, 78 percent of women with no schooling work in the field of agriculture, whereas only 31 percent of women with a secondary education or higher work in agriculture.

4.4.3 Earnings, Employers, and Continuity of Employment

Table 4.7 shows the percent distribution of employed women by type of earnings and employment characteristics. Because all of the employment variables in the table are strongly influenced by the sector in which a woman is employed, data are grouped according to agricultural or nonagricultural work.

Table 4.7 Type of employment: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Cambodia 2010

Employment characteristic	Agricultural work	Nonagricultural work	Missing	Total
Type of earnings				
Cash only	18.0	92.7	*	50.7
Cash and in-kind	38.8	3.4	*	23.3
In-kind only	36.2	0.5	*	20.6
Not paid	6.9	3.5	*	5.4
Missing	0.0	0.0	*	0.0
Total	100.0	100.0	100.0	100.0
Type of employer				
Employed by family member	16.3	8.1	*	12.7
Employed by non-family member	10.5	40.5	*	23.7
Self-employed	73.2	51.4	*	63.6
Missing	0.0	0.0	*	0.0
Total	100.0	100.0	100.0	100.0
Continuity of employment				
All year	11.5	87.1	*	44.6
Seasonal	86.2	8.7	*	52.2
Occasional	2.3	4.2	*	3.1
Missing	0.0	0.0	*	0.0
Total	100.0	100.0	100.0	100.0
Number of women employed during the past 12 months	8,507	6,623	12	15,142

Note: Total includes women with missing information on type of employment who are not shown separately. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Nearly two in five women engaged in agricultural work are paid in-kind or through a combination of cash and in-kind, 18 percent are paid in cash only, and 7 percent are unpaid. Women employed in the nonagricultural sector are more likely to be paid in cash (93 percent). Nationally, across all occupations, half (51 percent) of employed women are paid in cash and 23 percent are paid in cash and in-kind for their work.

In Cambodia, 64 percent of employed women are self-employed, and 13 percent are employed by a family member. Approximately 24 percent of employed women work for someone outside the family. Among women working in the agricultural sector, almost three-quarters (73 percent) are working for themselves, as compared with 51 percent of those in the nonagricultural sector. In addition, the proportion of women employed by someone outside the family is four times higher among those working in the nonagricultural sector than among those in the agricultural sector (41 percent versus 11 percent).

Forty-five percent of employed women work all year round, and 52 percent work seasonally. Those who work occasionally account for only 3 percent. Among women working in the agricultural sector, 86 percent are seasonal workers, as compared with only 9 percent of those working in the nonagricultural sector. Continuity of employment is more assured for women engaged in nonagricultural work than for those in agricultural work. For example, 87 percent of women working in the nonagricultural sector work all year, as compared with 12 percent of women engaged in agricultural work.

4.5 HEALTH INSURANCE

In the 2010 CDHS, women and men age 15-49 were asked whether they were covered by any health insurance and, if so, which type. The choices were the following: a health equity fund, a maternal health voucher, community-based insurance, employer-based insurance, and privately purchased commercial insurance. Tables 4.8.1 and 4.8.2 show health insurance coverage for women and men in Cambodia.

Table 4.8.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, Cambodia 2010

Background characteristic	Health equity fund	Maternal health voucher	Community-based health insurance	Employer-based insurance	Privately purchased commercial insurance	Other	None	Number
Age								
15-19	8.1	0.4	1.0	0.3	0.0	0.2	90.0	3,734
20-24	7.5	1.1	0.8	0.4	0.2	0.4	89.8	3,155
25-29	8.3	0.8	1.1	0.3	0.1	0.8	88.9	3,262
30-34	9.0	0.4	0.6	0.1	0.2	0.4	89.3	2,167
35-39	8.8	0.1	1.0	0.2	0.0	0.2	89.8	2,044
40-44	9.7	0.2	1.3	0.2	0.0	0.6	87.9	2,300
45-49	9.1	0.2	1.2	0.0	0.0	0.2	89.4	2,093
Residence								
Urban	3.8	0.3	0.4	0.4	0.2	0.2	94.9	3,936
Rural	9.8	0.6	1.2	0.2	0.0	0.5	87.9	14,818
Province								
Banteay Mean Chey	25.6	0.4	1.1	0.0	0.0	0.2	72.7	719
Kampong Cham	7.7	0.0	0.5	0.0	0.0	0.9	91.3	2,111
Kampong Chhnang	27.8	0.2	0.0	0.1	0.0	0.1	71.9	739
Kampong Speu	0.2	0.2	0.0	1.7	0.0	0.0	98.0	1,060
Kampong Thom	18.2	0.0	0.6	0.0	0.0	0.0	81.1	935
Kandal	0.0	0.0	0.0	0.2	0.1	0.0	99.7	1,920
Kratie	18.4	0.2	0.0	0.0	0.0	0.0	81.6	438
Phnom Penh	0.4	0.0	0.1	0.9	0.1	0.1	98.4	2,183
Prey Veng	1.0	0.8	1.0	0.0	0.0	0.1	97.1	1,341
Pursat	25.7	1.8	1.1	0.0	0.0	0.0	71.4	534
Siem Reap	4.1	4.5	5.2	0.0	0.0	2.2	84.4	1,233
Svay Rieng	16.9	0.1	0.1	0.0	0.0	0.0	82.8	753
Takeo	5.7	0.0	0.7	0.0	0.1	0.8	92.7	1,175
Otdar Mean Chey	6.1	0.0	17.8	0.0	0.0	2.9	73.5	252
Battambang/Pailin	8.0	0.9	0.8	0.0	0.3	0.2	89.8	1,320
Kampot/Kep	9.6	0.0	1.3	0.1	0.1	0.0	88.8	891
Preah Sihanouk/Koh Kong	18.1	0.0	0.0	0.2	0.1	0.2	81.3	439
Preah Vihear/Steung Treng	2.7	0.1	0.1	0.0	0.0	0.5	96.7	430
Mondol Kiri/Rattanak Kiri	32.9	0.1	0.1	0.0	0.0	0.0	66.8	281
Education								
No schooling	15.0	0.6	1.7	0.0	0.0	0.5	82.6	2,973
Primary	10.1	0.7	1.1	0.2	0.0	0.5	87.5	9,265
Secondary and higher	3.4	0.2	0.5	0.4	0.1	0.2	95.1	6,516
Wealth quintile								
Lowest	20.7	1.1	2.0	0.1	0.0	0.7	75.7	3,388
Second	12.2	0.6	1.4	0.1	0.0	0.7	85.1	3,516
Middle	6.9	0.5	0.9	0.2	0.1	0.2	91.2	3,594
Fourth	4.3	0.5	0.7	0.3	0.0	0.2	94.1	3,827
Highest	1.2	0.1	0.2	0.5	0.2	0.3	97.6	4,428
Total	8.5	0.5	1.0	0.2	0.1	0.4	89.4	18,754

The majority of Cambodians, 89 percent of women and 92 percent of men, do not have health insurance. Among those who are insured, the gross majority (9 percent of women and 6 percent of men) are insured through a health equity fund. One percent of respondents report having community-based health insurance, and less than 1 percent report being covered through employer-based health insurance, privately purchased commercial health insurance, or, in the case of female respondents, maternal health vouchers. These data imply that the health insurance system in the country is almost nonexistent.

Table 4.8.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, Cambodia 2010

Background characteristic	Health equity fund	Community-based health insurance	Employer-based insurance	Privately purchased commercial insurance	Other	None	Number
Age							
15-19	6.5	0.9	0.1	0.0	0.0	92.5	1,863
20-24	5.1	1.1	0.5	0.3	0.0	93.0	1,402
25-29	6.0	1.3	0.8	0.3	0.0	91.6	1,377
30-34	6.6	1.1	0.5	0.2	0.0	91.5	1,014
35-39	7.6	0.9	0.5	0.2	0.0	90.9	835
40-44	6.9	0.8	0.1	0.2	0.0	92.0	956
45-49	7.5	0.7	0.0	0.0	0.0	91.8	792
Residence							
Urban	3.0	0.4	0.7	0.6	0.0	95.4	1,697
Rural	7.3	1.2	0.3	0.1	0.0	91.2	6,542
Province							
Banteay Mean Chey	21.2	0.0	0.7	0.0	0.0	78.1	275
Kampong Cham	0.0	0.0	0.0	0.0	0.0	100.0	990
Kampong Chhnang	26.8	0.2	0.1	0.0	0.0	72.9	341
Kampong Speu	1.1	0.0	2.7	0.1	0.0	96.1	468
Kampong Thom	13.4	0.7	0.0	0.2	0.0	85.6	390
Kandal	0.3	0.6	0.4	0.1	0.0	98.6	796
Kratie	0.0	0.0	0.0	0.0	0.0	100.0	191
Phnom Penh	0.0	0.0	0.6	0.9	0.0	98.5	945
Prey Veng	2.3	0.7	0.0	0.0	0.0	97.0	598
Pursat	23.5	1.4	0.0	0.0	0.0	75.1	256
Siem Reap	4.6	5.8	0.2	0.0	0.0	89.3	517
Svay Rieng	18.9	0.0	0.3	0.3	0.0	80.6	331
Takeo	6.5	0.6	0.3	0.3	0.0	92.4	525
Otdar Mean Chey	9.7	17.7	0.4	1.0	0.2	71.2	122
Battambang/Pailin	9.4	0.0	0.0	0.0	0.0	90.6	603
Kampot/Kep	3.7	2.8	0.7	0.0	0.0	92.9	362
Preah Sihanouk/Koh Kong	1.5	0.3	0.0	0.0	0.0	98.2	203
Preah Vihear/Steung Treng	8.1	0.0	0.0	0.0	0.0	91.9	193
Mondol Kiri/Rattanak Kiri	20.1	0.0	0.0	0.0	0.0	79.9	132
Education							
No schooling	11.6	1.9	0.0	0.0	0.0	86.5	641
Primary	8.4	1.1	0.2	0.0	0.0	90.2	3,394
Secondary and higher	4.0	0.7	0.6	0.3	0.0	94.3	4,205
Wealth quintile							
Lowest	14.5	1.8	0.0	0.0	0.0	83.6	1,454
Second	10.1	1.6	0.2	0.0	0.0	88.2	1,544
Middle	5.5	0.7	0.4	0.0	0.0	93.4	1,637
Fourth	3.3	0.8	0.3	0.0	0.0	95.6	1,696
Highest	0.9	0.3	0.8	0.7	0.0	97.2	1,908
Total	6.4	1.0	0.4	0.2	0.0	92.0	8,239

Among respondents with health equity funds, there are notable differentials according to background characteristics. Both rural women and rural men are at least twice as likely as their urban counterparts to have a health equity fund. The proportion of those with a health equity fund is higher among women and men with no education and in the lower wealth quintiles. For example, 21 percent of women in the lowest health quintile are covered through a health equity fund, as compared with only 1 percent of women in the highest wealth quintile. Health equity fund coverage among women varies by province, ranging from 0 percent in Kandal to 33 percent in Mondol Kiri/Rattanak Kiri.

4.6 USE OF TOBACCO

Smoking or other use of tobacco affects one's health and may adversely affect the health of one's children, especially in terms of vulnerability to respiratory illness. In addition, tobacco use during pregnancy increases a woman's risk of having a small or low birth weight baby. All interviewed respondents in the 2010 CDHS were asked about their smoking habits. Tables 4.9.1 and 4.9.2 show the percentage of women and men, respectively, who use various types of tobacco and the percent distribution of cigarette smokers by number of cigarettes smoked in the preceding 24 hours, according to background characteristics.

Table 4.9.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Cambodia 2010

Background characteristic	Cigarettes	Pipe	Other tobacco	Does not use tobacco	Number of women	Number of cigarettes in the past 24 hours					Total	Number of cigarette smokers
						1-2	3-5	6-9	10+	Don't know/ missing		
Age												
15-19	0.4	0.0	0.3	99.3	3,734	(20.1)	(28.3)	(10.4)	(30.8)	(10.5)	100.0	15
20-24	0.6	0.0	0.7	98.7	3,155	(11.1)	(50.2)	(4.5)	(34.3)	(0.0)	100.0	19
25-29	1.9	0.0	1.7	96.6	3,262	15.1	30.9	11.6	32.7	9.6	100.0	60
30-34	2.5	0.1	4.5	93.4	2,167	18.3	38.3	3.9	34.3	5.2	100.0	54
35-39	4.0	0.1	7.2	89.4	2,044	12.2	49.4	8.9	29.6	0.0	100.0	83
40-44	4.0	0.1	12.1	85.1	2,300	12.4	32.5	7.7	47.4	0.0	100.0	93
45-49	5.7	0.1	16.9	78.8	2,093	19.2	37.1	9.7	32.6	1.4	100.0	119
Residence												
Urban	0.6	0.0	0.7	98.7	3,936	12.5	38.8	7.6	37.1	4.0	100.0	24
Rural	2.8	0.1	6.3	91.4	14,818	15.7	38.0	8.5	35.2	2.6	100.0	418
Province												
Banteay Mean Chey	1.5	0.0	4.4	94.1	719	*	*	*	*	*	100.0	11
Kampong Cham	7.4	0.0	3.6	90.0	2,111	21.8	35.4	9.7	29.9	3.2	100.0	156
Kampong Chhnang	3.5	0.4	8.7	89.5	739	(19.6)	(47.8)	(9.1)	(23.6)	(0.0)	100.0	26
Kampong Speu	0.1	0.0	2.7	97.0	1,060	*	*	*	*	*	100.0	1
Kampong Thom	0.9	0.0	5.6	93.9	935	*	*	*	*	*	100.0	9
Kandal	0.5	0.0	4.8	94.8	1,920	*	*	*	*	*	100.0	10
Kratie	7.4	0.0	6.0	87.1	438	20.2	42.9	7.0	28.2	1.7	100.0	32
Phnom Penh	0.1	0.0	0.2	99.7	2,183	*	*	*	*	*	100.0	3
Prey Veng	1.1	0.0	12.9	86.8	1,341	*	*	*	*	*	100.0	15
Pursat	3.7	0.1	8.1	88.8	534	(4.1)	(15.9)	(11.2)	(68.7)	(0.0)	100.0	20
Siem Reap	1.3	0.0	4.3	94.5	1,233	*	*	*	*	*	100.0	16
Svay Rieng	0.2	0.0	11.8	88.0	753	*	*	*	*	*	100.0	2
Takeo	0.6	0.0	4.3	95.3	1,175	*	*	*	*	*	100.0	7
Otdar Mean Chey	0.7	0.0	3.8	95.3	252	*	*	*	*	*	100.0	2
Battambang/Pailin	2.5	0.0	2.7	95.1	1,320	*	*	*	*	*	100.0	32
Kampot/Kep	1.8	0.0	2.2	97.0	891	*	*	*	*	*	100.0	16
Preah Sihanouk/Koh Kong	2.7	0.0	2.1	96.8	439	(14.6)	(32.3)	(0.0)	(48.4)	(4.7)	100.0	12
Preah Vihear/Steung Treng	4.0	0.1	18.0	78.4	430	(12.2)	(48.4)	(10.4)	(29.0)	(0.0)	100.0	17
Mondol Kiri/Rattanak Kiri	19.9	2.9	10.5	71.0	281	18.6	39.4	13.5	28.5	0.0	100.0	56
Education												
No schooling	8.4	0.3	12.9	80.4	2,973	16.9	34.4	8.7	36.7	3.3	100.0	249
Primary	2.0	0.0	5.8	92.5	9,265	13.3	43.4	8.3	33.5	1.4	100.0	190
Secondary and higher	0.1	0.0	0.7	99.3	6,516	*	*	*	*	*	100.0	3
Maternity status												
Pregnant	3.4	0.0	3.5	93.3	933	(6.2)	(56.3)	(0.6)	(30.7)	(6.2)	100.0	32
Breastfeeding (not pregnant)	2.5	0.1	3.8	94.0	2,761	12.7	44.6	10.1	27.0	5.6	100.0	68
Neither	2.3	0.1	5.5	92.7	15,061	16.9	35.0	8.9	37.4	1.8	100.0	343
Wealth quintile												
Lowest	5.9	0.2	11.2	84.1	3,388	13.7	40.1	10.9	32.2	3.1	100.0	199
Second	3.6	0.1	7.5	89.9	3,516	13.4	39.3	5.8	41.5	0.0	100.0	126
Middle	2.0	0.1	5.8	92.5	3,594	24.7	31.5	9.6	32.7	1.7	100.0	71
Fourth	1.0	0.0	2.3	96.8	3,827	(11.6)	(37.4)	(5.0)	(36.4)	(9.5)	100.0	38
Highest	0.2	0.0	0.6	99.2	4,428	*	*	*	*	*	100.0	10
Total	2.4	0.1	5.1	92.9	18,754	15.5	38.0	8.5	35.3	2.7	100.0	443

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

Overall, 8 percent of women in Cambodia use some form of tobacco, a decrease from self-reported tobacco use among women in the 2005 CDHS. Two percent smoke cigarettes, and 5 percent use a form of tobacco other than cigarettes or a pipe (some women use more than one form of tobacco). Less than 7 percent of pregnant women or those who are breastfeeding use tobacco. Tobacco use is much higher among men, with 34 percent of Cambodian men reporting that they smoke cigarettes and 4 percent reporting that they use other forms of tobacco. Women are almost one and a half times more likely than men to not use tobacco (93 percent versus 65 percent).

Tobacco use varies greatly by background characteristics. Older women and men are much more likely to use tobacco than are younger women and men. Cigarette smoking increases from less than 1 percent among women age 15-19 to 6 percent among women 45-49. Similarly, reported cigarette smoking in men increases from 8 percent among those age 15-19 to 58 percent among those in the oldest age cohort. Use of tobacco other than cigarettes also increases with age among both women and men.

Table 4.9.2 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 preceding 24 hours, according to background characteristics, Cambodia 2010

Background characteristic	Cigarettes	Pipe	Other tobacco	Does not use tobacco	Number of men	Number of cigarettes in the past 24 hours					Total	Number of cigarette smokers
						1-2	3-5	6-9	10+	Don't know/ missing		
Age												
15-19	7.7	0.2	1.0	92.2	1,863	8.8	29.6	5.0	56.0	0.6	100.0	144
20-24	22.4	0.0	2.2	77.4	1,402	8.4	23.1	11.0	57.2	0.3	100.0	314
25-29	34.6	0.2	3.3	65.0	1,377	3.2	15.6	5.4	75.8	0.0	100.0	477
30-34	47.2	0.4	4.6	52.1	1,014	5.9	12.3	3.8	77.8	0.2	100.0	478
35-39	52.5	0.4	6.5	46.2	835	2.7	9.9	7.3	80.1	0.1	100.0	438
40-44	53.8	0.5	6.8	44.4	956	4.2	13.0	5.2	77.5	0.1	100.0	514
45-49	57.9	0.3	7.3	39.5	792	1.8	10.3	5.5	82.3	0.0	100.0	458
Residence												
Urban	21.9	0.7	1.3	78.1	1,697	5.1	16.7	5.8	72.4	0.0	100.0	372
Rural	37.5	0.2	4.5	61.5	6,542	4.3	14.0	6.1	75.5	0.2	100.0	2,452
Province												
Banteay Mean Chey	38.1	0.0	0.4	61.4	275	5.4	13.3	3.6	77.6	0.0	100.0	105
Kampong Cham	35.1	0.2	0.0	64.9	990	3.1	11.0	1.0	84.9	0.0	100.0	348
Kampong Chhnang	38.0	0.1	37.7	61.7	341	4.8	21.6	12.0	61.6	0.0	100.0	130
Kampong Speu	22.6	0.0	5.7	71.7	468	2.7	14.7	8.0	74.6	0.0	100.0	106
Kampong Thom	43.7	0.0	0.4	56.0	390	4.3	19.4	7.0	67.8	1.6	100.0	170
Kandal	32.3	0.0	0.0	67.7	796	6.7	15.6	1.7	76.0	0.0	100.0	258
Kratie	47.3	0.0	0.3	52.7	191	1.0	12.1	1.5	85.4	0.0	100.0	91
Phnom Penh	17.6	0.0	0.0	82.3	945	5.3	18.6	6.9	69.3	0.0	100.0	167
Prey Veng	33.1	0.0	1.6	65.6	598	1.0	10.3	13.5	75.2	0.0	100.0	198
Pursat	42.3	0.0	0.0	57.7	256	0.9	9.6	5.1	84.4	0.0	100.0	108
Siem Reap	38.6	3.6	3.6	60.8	517	3.5	16.0	7.4	73.1	0.0	100.0	200
Svay Rieng	33.5	0.0	3.7	63.1	331	8.3	25.4	6.0	60.2	0.0	100.0	111
Takeo	34.8	0.0	0.6	65.2	525	9.4	16.9	7.4	66.3	0.0	100.0	183
Otdar Mean Chey	37.6	0.0	0.0	62.4	122	0.1	3.9	2.5	93.4	0.0	100.0	46
Battambang/Pailin	33.1	0.0	0.9	66.9	603	3.4	12.9	7.6	76.2	0.0	100.0	200
Kampot/Kep	47.6	0.0	0.8	51.9	362	7.2	15.4	12.3	65.2	0.0	100.0	172
Preah Sihanouk/Koh Kong	34.0	0.0	3.4	62.8	203	3.1	7.7	1.6	86.1	1.5	100.0	69
Preah Vihear/Steung Treng	54.0	0.2	51.0	44.3	193	2.9	3.1	1.4	92.6	0.0	100.0	104
Mondol Kiri/Rattanak Kiri	45.5	0.1	2.8	52.9	132	5.9	18.3	3.6	72.2	0.0	100.0	60
Education												
No schooling	65.2	0.8	10.4	32.1	641	1.4	13.4	3.9	81.2	0.0	100.0	418
Primary	45.5	0.3	5.8	53.2	3,394	3.1	14.6	6.4	75.7	0.2	100.0	1,545
Secondary and higher	20.5	0.2	1.3	79.4	4,205	8.1	14.5	6.3	71.0	0.1	100.0	860
Wealth quintile												
Lowest	51.2	0.4	8.6	47.1	1,454	4.0	13.2	5.2	77.4	0.1	100.0	744
Second	41.7	0.2	6.1	56.5	1,544	3.6	13.6	8.4	74.3	0.1	100.0	644
Middle	34.7	0.2	3.7	64.6	1,637	4.5	16.2	5.0	74.1	0.2	100.0	567
Fourth	29.3	0.2	1.4	70.7	1,696	5.4	12.4	5.4	76.7	0.2	100.0	496
Highest	19.5	0.3	0.8	80.5	1,908	4.9	17.9	5.8	71.2	0.1	100.0	371
Total	34.3	0.3	3.9	64.9	8,239	4.4	14.4	6.0	75.1	0.1	100.0	2,823

Women and men in rural areas, those with less education, and those in the lower wealth quintiles are more likely to use tobacco. Only 1 percent of women in urban areas use tobacco, as compared with 9 percent of women in rural areas. Likewise, almost one-fourth of urban men report using tobacco, as compared with 38 percent of their rural counterparts. Tobacco use ranges from 1 percent among women with a secondary education or higher and those in the highest wealth quintile to 20 percent among women with no education and 16 percent among those in the lowest wealth quintile. Men show a pattern similar to that of women. Tobacco use rates are highest among women in Mondol Kiri/Rattanak Kiri, where nearly 30 percent of women use tobacco, mostly in the form of cigarettes, and in Preah Vihear/Steung Treng (22 percent), where the proportion of women using other forms of tobacco is high. Among men, tobacco use is highest in Preah Vihear/Steung Treng (56 percent), where high proportions of men report smoking cigarettes and using other forms of tobacco.

Respondents who reported smoking cigarettes were asked to recall the number of cigarettes smoked in the past 24 hours. The differentials in smoking frequency among female smokers are very small due to the small number of women in Cambodia who smoke. However, Table 4.9.1 shows that 38 percent of women report smoking 3-5 cigarettes per day. Proportions among women are much lower than those among men, as can be seen in Table 4.9.2. Seventy-five percent of male smokers reported smoking 10 or more cigarettes in the past 24 hours. This proportion is much higher among men living in Otdar Mean Chey and Preah Vihear/Steung Treng, where more than 90 percent report smoking 10 or more cigarettes in the past 24 hours.

FERTILITY 5

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

Current fertility levels, trends and differentials in fertility, cumulative fertility, birth intervals, age at first birth, and adolescent fertility are examined in this chapter. The fertility indicators presented in this chapter are based on information obtained from women age 15-49. All women who were interviewed in the 2010 CDHS were asked to report the total number of daughters and sons they had given birth to in their lifetime. To encourage complete reporting, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was then obtained, including information on the sex, date of birth,[1] and survival status of each child and the age at death for deceased children.

5.1 CURRENT FERTILITY LEVELS AND DIFFERENTIALS

The current level of fertility refers to live births in the three-year period preceding the survey. This information was obtained from birth history data and is presented in Table 5.1. The summary measures include age-specific fertility rates (ASFRs),[2] total fertility rates (TFRs) for women age 15-49, the general fertility rate (GFR), and the crude birth rate (CBR). The ASFRs represent the number of live births per 1,000 women in the age group. The TFR is a common measure of current fertility and is defined as the total number of births a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The GFR is defined as the annual number of births per 1,000 women age 15-44. The CBR is the total number of births occurring in a given year per 1,000 population.

Table 5.1 Current fertility

Age-specific and total fertility rate, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Cambodia 2010

	Residence		
Age group	Urban	Rural	Total
15-19	26	52	46
20-24	108	195	173
25-29	125	178	167
30-34	124	120	121
35-39	46	76	71
40-44	11	31	28
45-49	4	4	4
TFR (15-49)	2.2	3.3	3.0
GFR	75	113	104
CBR	21.0	25.0	24.2

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

The total fertility rate in Cambodia for the three years preceding the survey indicates that if fertility rates were to remain constant at the level prevailing during the period 2008-2010, a Cambodian woman would bear 3.0 children during her lifetime. The average Cambodian woman will

[1] During data collection, interviewers recorded Gregorian month and year of birth. However, when the respondent knew only the Khmer month and year of birth, the interviewer used a chart specially designed for the CDHS to convert Khmer dates into Gregorian dates.

[2] Numerators of the three-year ASFRs are calculated by summing the number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of the interview and the date of birth of the child) and classifying them by age (in 5-year groups) of the mother at the time of the birth (determined by the mother's birth date). The denominators of the rates are the number of woman-years lived in each of the specified 5-year age groups during the 1-36 months preceding the survey.

give birth to 1.1 children by age 25[3] and 1.9 children by age 30. The TFR in urban areas is 2.2 births per woman, more than one child lower than the rate in rural areas (3.3 births per woman). An examination of age-specific rates by urban-rural residence indicates that the age pattern of fertility is quite different in urban and rural areas. Fertility rates are higher in nearly every age group for rural women than for urban women. Among women age 15-19, fertility rates are quite low in both urban and rural areas (26 and 52 per 1,000 women, respectively). Among rural women, rates quickly increase to reach their maximum at age 20-24 (195 per 1,000) and remain quite high at age 25-29 (178 per 1,000) before declining regularly above the age of 29. Among urban women, fertility rates increase slowly after age 19 to reach a maximum at age 25-29 and 30-34 (125 and 124 per 1,000, respectively) and then decline sharply but regularly.

The CBR, also presented in Table 5.1, is 24.2 per 1,000 population. The GFR is 104 per 1,000 women age 15-44 for the three years prior to the survey. Like the TFR, the GFR and CBR also vary by urban-rural residence. With a GFR of 113, the average annual number of births for rural women is nearly 50 percent higher than that for urban women (75 births per 1,000 women). The CBR in rural areas (25.0 per 1,000) is approximately 20 percent higher than the CBR in urban areas (21.0 per 1,000).

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Cambodia 2010

Background characteristic	Total fertility rate	Percentage women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	2.2	3.8	3.1
Rural	3.3	5.3	4.4
Province			
Banteay Mean Chey	3.2	4.8	4.3
Kampong Cham	3.4	6.8	4.4
Kampong Chhnang	3.6	6.2	4.8
Kampong Speu	3.1	3.6	4.6
Kampong Thom	3.2	4.4	4.8
Kandal	2.9	3.3	4.0
Kratie	3.9	7.1	4.7
Phnom Penh	2.0	3.4	2.7
Prey Veng	3.3	5.3	3.6
Pursat	3.4	5.8	4.8
Siem Reap	3.4	5.7	4.7
Svay Rieng	2.6	4.2	3.8
Takeo	3.1	5.2	4.2
Otdar Mean Chey	3.2	4.9	4.6
Battambang/Pailin	3.2	5.6	4.4
Kampot/Kep	2.8	4.7	4.1
Preah Sihanouk/Koh Kong	2.9	5.0	4.2
Preah Vihear/Steung Treng	3.5	6.7	4.8
Mondol Kiri/Rattanak Kiri	4.5	6.2	5.7
Education			
No schooling	3.7	5.2	4.5
Primary	3.4	5.3	4.2
Secondary and higher	2.4	4.4	3.2
Wealth quintile			
Lowest	4.5	6.3	4.8
Second	3.3	5.4	4.6
Middle	3.0	5.8	4.4
Fourth	2.7	4.5	4.0
Highest	2.1	3.4	3.1
Total	3.0	5.0	4.2

Note: Total fertility rates are for the period 1-36 months prior to interview.

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

Table 5.2 presents differentials in fertility by urban-rural residence, province, education, and wealth quintile. There are large differences in fertility levels across provinces. Fertility is lowest in the capital city of Phnom Penh, at 2.0 children per woman, and highest in Mondol Kiri/Rattanak Kiri, at 4.5 children per woman. Among the remaining provinces, total fertility ranges from 2.6 to 3.9. Fertility is well known to be inversely related to level of education around the world, and Cambodian women are demonstrating this universal pattern. A woman with no education (TFR of 3.7) has 0.3 children more than a woman with a primary school education (TFR of 3.4), who herself has one child more than a woman with a secondary or higher education (TFR of 2.4). Fertility is also very closely associated with wealth. The disparity in fertility between the poorest women, who have the most children (4.5), and the richest women, who have the fewest (2.1), is 2.4 children per woman.

Table 5.2 includes another indicator of current fertility, the percentage of women who reported being pregnant at the time of the survey. This percentage may be underreported because women may not be aware of a pregnancy, especially at the very early stages, and some women who are early in their pregnancy may not want to reveal that they are pregnant. Five percent of women reported that they were pregnant at the time of the survey. The proportion of pregnant women was lower in urban areas (4 percent) than in rural areas (5 percent). Phnom Penh and Kandal had the lowest proportion of pregnant women (3 percent), and Kratie, Kampong Cham, and Preah Vihear/Steung Treng had the highest (7 percent). The proportion of women currently pregnant declined steadily with increasing education and increasing wealth quintile.

5.2 FERTILITY TRENDS

The 2010 CDHS data can be used to assess the trend in fertility in Cambodia in several ways.

5.2.1 Comparison of Current and Cumulative Fertility Levels

Table 5.2 also allows a crude assessment of trends in the various subgroups by comparing current fertility with a measure of completed fertility: the mean number of children ever born to women age 40-49. The mean number of children born to older women who are nearing the end of their reproductive period is an indicator of average completed fertility of women who began childbearing during the three decades preceding the survey. If fertility remained constant over time and the reported data on both children ever born and births during the three years preceding the survey are reasonably accurate, the TFR and the mean number of children ever born to women 40-49 would be equal. When fertility levels have been falling, the TFR will be substantially lower than the mean number of children born among women age 40-49. A comparison of the mean number of children ever born to women age 40-49 (4.2) with the TFR (3.0) suggests a decline of 1.2 children per woman in Cambodia over the past few decades. Fertility has declined in both rural and urban areas, in all provinces, at all educational levels, and for all wealth quintiles. The differences between the level of completed and current fertility are of similar magnitude in urban (0.9) and rural (1.1) areas. The largest observed differences are in Kampong Thom and Kampong Speu (1.6 and 1.5 children, respectively). Although all provinces demonstrate declines in fertility, the smallest decline is seen in Prey Veng (a decrease of 0.3 children per woman).

5.2.2 Retrospective Data

Fertility trends can be investigated using retrospective data from the birth histories collected within the 2010 CDHS. Table 5.3.1 and Figure 5.1 show ASFRs for successive five-year periods preceding the 2010 CDHS. Numerators of the rates are classified by five-year segments of time preceding the survey and the mother's age at the time of birth. 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 were not interviewed.

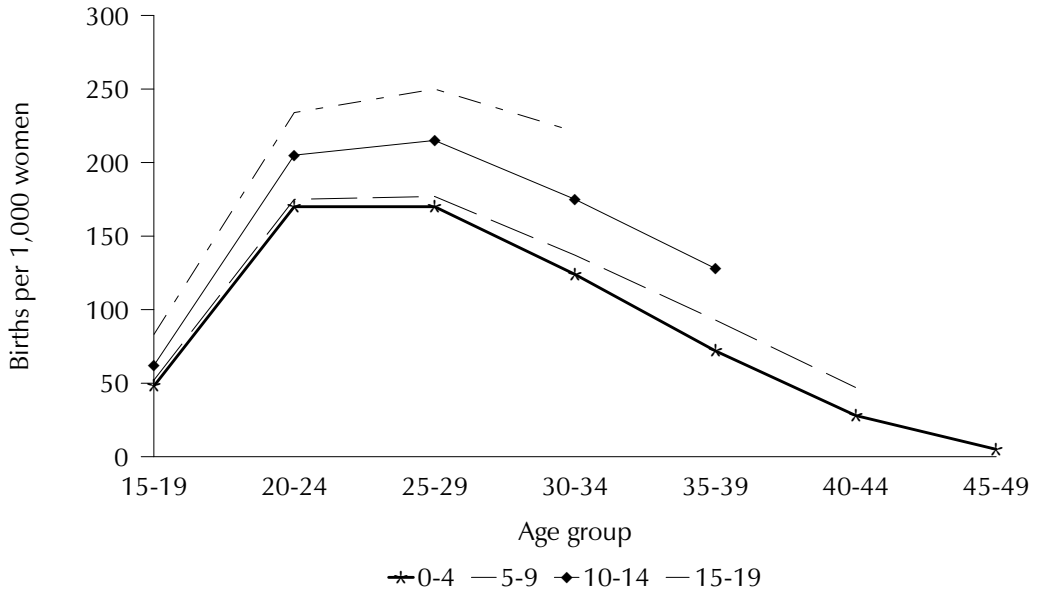
Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Cambodia 2010

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	48	52	62	83
20-24	170	175	205	234
25-29	170	177	215	250
30-34	124	137	175	[221]
35-39	72	93	[128]	
40-44	28	[47]		
45-49	[5]			

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

Figure 5.1 Age-specific Fertility Rates for Five-year Periods Preceding the Survey



CDHS 2010

Age-specific fertility rates calculated over time from the 2010 CDHS provide further evidence of a substantial decline in fertility at all ages. In the 5-9 years preceding the survey, however, fertility declines were proportionately greater for women age 30 and older than for women in the prime childbearing ages of 20-29 years. Women age 30 and above experienced at least a 22 percent decline in fertility. In the five years preceding the survey, the decline in fertility (23 percent) was greater for women age 35 and older. This pattern is common in populations experiencing a fertility decline. It occurs during a fertility transition when older women, who may be more likely to have reached their desired family size, make a greater effort to limit their births than do younger women, who are likely to have not yet achieved their desired family size. The data further show that the decline in fertility rates has slowed slightly in recent years.

5.2.3 Comparison with Previous CDHS

Another way to assess fertility trends is to compare current estimates with earlier surveys. Table 5.3.2 and Figure 5.2 show the ASFRs for the 2000, 2005, and 2010 CDHSs. The current TFR of 3.0 attests to a fairly sharp decline in fertility, from 4.0 children per woman reported in the 2000 CDHS. As mentioned earlier, the decline in fertility has slowed slightly in recent years: the TFR decreased by 0.6 children per woman between 2000 and 2005 and by 0.4 between 2005 and 2010. Although fertility declined in both urban and rural areas, the change in the TFR between the 2005

CDHS and the 2010 CDHS occurred predominantly as a result of declining fertility among urban women. The TFR decreased by 0.6 children among urban women and by 0.2 children among rural women.

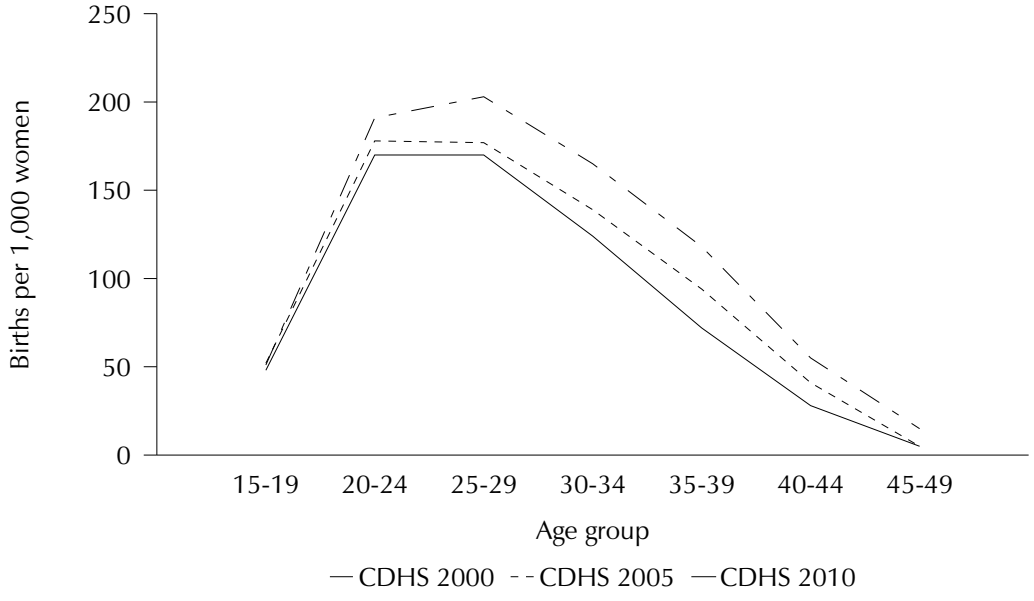
Table 5.3.2 Trends in age-specific and total fertility rates

Age-specific and total fertility rates (TFR), Cambodia 2000, 2005, and 2010

Mother's age at birth	CDHS 2000[1]	CDHS 2005[2]	CDHS 2010
15-19	51	52	48
20-24	191	178	170
25-29	203	177	170
30-34	165	139	124
35-39	118	94	72
40-44	55	41	28
45-49	15	5	5
TFR	4.0	3.4	3.0

Note: Age-specific fertility rates are per 1,000 women. CDHS 2000, 2005, and 2010 rates pertain to the five-year period preceding the survey.
[1] NIS, DGH, and ORC Macro, 2001
[2] NIPH, NIS, and ORC Macro, 2006

Figure 5.2 **Trends in Age-specific Fertility Rates, Various Sources, 2000-2010**



CDHS 2010

Declines in ASFRs between 2000 and 2010 have occurred among all age groups. The age groups in which women have demonstrated the largest decreases in fertility are 25-29, 30-34, and 35-39, with women in the 30-39 age group showing a decrease of more than 40 births per thousand women. Fertility has fallen in all provinces as well, including Mondol Kiri/Rattanak Kiri, the province with the highest fertility, where the TFR has declined by almost two children from 6.3 to 4.5.

5.3 CHILDREN EVER BORN AND LIVING

Data on the number of children ever born reflect the accumulation of births over the past 30 years and therefore have limited relevance to current fertility levels, particularly when a country has experienced a decline in fertility. Nevertheless, information on children ever born (or parity) is useful in looking at how average family size varies across age groups and in assessing the level of primary

infertility, the inability to bear children. A comparison of the differences in the mean number of children ever born and surviving reflects the cumulative effects of mortality levels during the period in which women have been bearing children.

Table 5.4 shows the percent distribution of all women and currently married women by the number of children ever born, the mean number of children ever born, and the mean number of children living. More than 9 in 10 women age 15-19 (95 percent) have never given birth. However, this proportion declines quickly to 22 percent among women age 25-29 and to 9 percent or less among women age 35 and above. On average, Cambodian women have attained a parity of 4.5 children by the end of their reproductive years. This is 1.5 children more than the total fertility rate, a difference brought about by recent dramatic declines in fertility.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Cambodia 2010

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	94.7	4.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,734	0.06	0.05
20-24	53.8	31.0	12.4	2.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,155	0.65	0.61
25-29	22.2	25.0	33.9	13.9	3.7	0.8	0.4	0.1	0.0	0.0	0.0	100.0	3,262	1.56	1.48
30-34	11.6	13.3	27.1	25.5	14.3	5.6	1.9	0.5	0.1	0.2	0.0	100.0	2,167	2.46	2.28
35-39	8.5	5.2	18.2	24.7	20.4	10.9	6.9	3.5	0.8	0.7	0.2	100.0	2,044	3.33	2.99
40-44	7.7	4.7	14.1	17.2	20.1	14.6	9.8	6.3	3.0	1.4	1.1	100.0	2,300	3.89	3.44
45-49	8.3	6.0	9.7	11.8	14.9	16.2	11.5	9.5	5.8	3.2	3.2	100.0	2,093	4.46	3.80
Total	35.9	13.8	16.0	11.9	8.7	5.6	3.5	2.3	1.1	0.6	0.5	100.0	18,754	2.01	1.81
CURRENTLY MARRIED WOMEN															
15-19	52.0	42.3	5.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	382	0.54	0.50
20-24	18.1	53.8	22.8	4.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	100.0	1,679	1.16	1.10
25-29	6.3	28.2	41.8	17.5	4.6	1.1	0.5	0.1	0.0	0.0	0.0	100.0	2,572	1.92	1.82
30-34	2.6	12.8	30.1	29.1	16.2	6.0	2.2	0.5	0.1	0.2	0.0	100.0	1,811	2.75	2.56
35-39	1.9	3.9	18.1	27.4	22.5	12.4	7.8	4.0	0.9	0.9	0.3	100.0	1,747	3.67	3.29
40-44	2.2	2.9	13.8	17.9	21.9	16.3	11.2	7.2	3.5	1.6	1.3	100.0	1,861	4.28	3.78
45-49	1.4	3.8	9.3	11.8	15.9	18.7	13.3	11.4	6.6	3.8	4.1	100.0	1,574	5.05	4.31
Total	7.0	19.0	23.6	17.7	12.6	8.2	5.2	3.4	1.6	0.9	0.8	100.0	11,626	2.96	2.66

The same pattern is observed for currently married women, except that the mean number of children ever born is higher for currently married women (3.0 children) than for all women (2.0 children). The difference between all women and currently married women in mean number of children ever born is due to the substantial proportion of young and unmarried women in the all-women category who exhibit lower fertility. It is evident that there is little extramarital childbearing: only 5 percent of teenage women have given birth to at least one child, whereas 48 percent of currently married teenage women have begun childbearing. If rates of extramarital childbearing were high, one would expect to see higher rates of childbearing among all teenage women.

As would be expected, the mean number of children ever born and the mean number of children surviving rise monotonically with increasing age of women. A comparison of the mean number of children ever born with the mean number of living children reveals the experience of child loss among Cambodian women. By the end of their reproductive years (age 45-49), married women in Cambodia have given birth, on average, to 3.0 children, with 2.7 surviving.

Voluntary childlessness is not common in Cambodia, and currently married women with no children are likely to be those who are unable to bear children (primary infertility). Whereas 52 percent of currently married adolescent women are childless, this proportion decreases to 6 percent among currently married women age 25-29 and continues to decline with increasing age. The percentage of childless women among currently married women at the end of the reproductive period (age 45-49) shows that primary infertility among currently married women is low (1 percent).

5.4 BIRTH INTERVALS

Longer birth intervals contribute to improved health status of both mother and child (Rutstein, 2005). Infants born within two years of the birth of a previous child experience a higher risk of health problems. Table 5.5 shows the distribution of second and higher order births that occurred in the five years preceding the survey by the number of months since the previous birth, according to background characteristics.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Cambodia 2010

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	*	*	*	*	*	*	100.0	22	*
20-29	6.5	15.1	31.8	20.6	13.6	12.4	100.0	2,353	34.8
30-39	4.9	7.4	22.4	19.0	13.5	32.9	100.0	2,324	45.6
40-49	5.2	4.3	19.9	17.1	8.4	45.0	100.0	698	51.9
Sex of preceding birth									
Male	5.9	10.1	25.5	18.6	13.3	26.6	100.0	2,814	41.3
Female	5.5	10.6	27.3	20.3	12.3	24.0	100.0	2,583	38.8
Survival of preceding birth									
Living	4.3	10.1	26.3	19.6	13.5	26.2	100.0	4,973	41.0
Dead	23.0	13.5	26.6	16.7	4.9	15.4	100.0	424	27.6
Birth order									
2-3	5.6	11.6	26.0	18.9	14.0	23.9	100.0	3,493	39.6
4-6	4.5	7.7	26.3	19.9	11.1	30.6	100.0	1,504	42.7
7+	11.7	9.3	29.7	21.6	9.2	18.4	100.0	400	35.7
Residence									
Urban	5.5	10.4	22.9	18.8	13.4	28.9	100.0	767	42.4
Rural	5.8	10.3	26.9	19.5	12.7	24.8	100.0	4,630	39.5
Province									
Banteay Mean Chey	3.7	9.1	21.5	16.2	17.2	32.4	100.0	198	46.9
Kampong Cham	4.3	8.7	27.1	23.0	12.2	24.7	100.0	687	40.1
Kampong Chhnang	6.0	15.1	25.2	21.9	12.5	19.3	100.0	287	37.2
Kampong Speu	6.1	12.4	26.9	18.3	12.3	24.0	100.0	298	38.7
Kampong Thom	6.2	11.1	26.0	19.8	12.3	24.6	100.0	299	39.4
Kandal	6.9	10.3	32.7	15.0	10.0	25.0	100.0	511	36.0
Kratie	8.8	13.7	30.5	16.0	10.2	20.8	100.0	184	33.6
Phnom Penh	6.3	8.6	22.0	20.5	13.8	28.8	100.0	369	44.4
Prey Veng	2.2	6.7	19.3	17.2	16.7	37.8	100.0	402	51.4
Pursat	3.4	13.9	28.6	24.3	14.5	15.3	100.0	184	38.1
Siem Reap	8.6	13.6	29.3	15.2	11.9	21.3	100.0	381	35.4
Svay Rieng	4.4	9.3	20.0	16.1	18.5	31.8	100.0	173	48.1
Takeo	5.5	8.8	24.4	20.0	11.1	30.2	100.0	358	43.2
Otdar Mean Chey	5.4	10.0	17.7	21.9	17.2	27.8	100.0	71	45.2
Battambang/Pailin	6.2	8.9	29.1	22.6	11.3	21.9	100.0	372	37.6
Kampot/Kep	5.9	9.7	26.7	19.3	14.3	24.1	100.0	218	40.0
Preah Sihanouk/Koh Kong	7.9	8.4	24.8	21.9	12.3	24.7	100.0	115	40.5
Preah Vihear/Steung Treng	7.3	12.2	28.3	21.9	11.4	18.8	100.0	161	36.9
Mondol Kiri/Rattanak Kiri	6.5	12.3	31.0	18.7	12.1	19.4	100.0	129	36.1
Education									
No schooling	5.6	12.2	29.3	19.5	13.5	20.0	100.0	1,171	37.0
Primary	5.8	10.1	25.7	19.6	12.8	26.0	100.0	3,167	40.6
Secondary and higher	5.7	9.1	25.1	18.6	12.2	29.3	100.0	1,059	41.7
Wealth quintile									
Lowest	7.4	12.4	31.2	18.8	12.4	17.8	100.0	1,566	35.7
Second	5.6	10.6	25.7	20.8	11.6	25.7	100.0	1,232	40.3
Middle	5.1	9.9	24.0	20.0	12.7	28.3	100.0	948	41.3
Fourth	3.9	7.6	27.1	18.4	12.8	30.2	100.0	869	42.6
Highest	5.5	9.4	19.6	18.6	15.7	31.2	100.0	783	45.5
Total	5.7	10.4	26.3	19.4	12.8	25.4	100.0	5,397	40.0

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

In 2010, 16 percent of non-first births in Cambodia occurred less than 24 months after the preceding birth (as compared with 18 percent in 2005 and 21 percent in 2000), with 6 percent occurring less than 18 months after the preceding birth. Fifty-eight percent of women gave birth at least 36 months after the previous birth, an improvement over the figure from the 2005 CDHS (52 percent). The overall median birth interval was 40.0 months. This means that half of the births in Cambodia occur within 40 months of the previous birth, and half occur after an interval of 40 months or longer. Data also indicate that birth intervals increase with increasing age of women. Twenty-two percent of births to women age 20-29 occurred within two years of the previous birth, as compared with only 10 percent of births among women age 40 and above.

The median birth interval increases from 34.8 months among women age 20-29 to 51.9 months among women age 40 and above. Birth intervals do not vary appreciably by sex of the preceding child or urban-rural residence. However, birth intervals vary markedly by the survival status of the preceding birth: 23 percent of births occur within an 18-month interval when the preceding child has died, as compared with 4 percent when the child is still alive. The median birth interval is 41.0 months if the previous child is living but falls to 27.6 months if the preceding child is dead. Median birth intervals are shortest in Kratie (33.6) and Siem Reap (35.4) and significantly longer in Prey Veng (51.4), Svay Rieng (48.1), and Banteay Mean Chey (46.9). Mothers with more education have longer birth intervals: those with no education have a median birth interval of 37.0 months, whereas those with a secondary or higher education have a median birth interval of 41.7 months. These results are consistent with the level of fertility; birth intervals are shorter when the TFR is high and longer when the TFR is low.

5.5 AGE AT FIRST BIRTH

Early age at childbearing has a detrimental effect on the health of both mother and child. It also frequently leads to a longer reproductive span and a higher level of fertility. Table 5.6 shows the percentage of women age 15-49 who have given birth by exact ages, the percentage who have never given birth, and the median age at first birth, according to current age. The youngest cohort of women for whom median age at first birth can be calculated is 25-29 years. The medians age for women in the 15-19 and 20-24 age groups cannot be determined because fewer than half of these women had a birth before reaching the lowest age of the age group.

Table 5.6 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Cambodia 2010

	Percentage who gave birth by exact age					Percentage who have never given	Number of	Median age
Current age	15	18	20	22	25	birth	women	at first birth
15-19	0.1	na	na	na	na	94.7	3,734	a
20-24	0.3	6.7	22.4	na	na	53.8	3,155	a
25-29	0.2	8.1	23.2	42.1	66.8	22.2	3,262	22.8
30-34	1.0	12.2	31.1	49.8	71.2	11.6	2,167	22.0
35-39	0.4	10.3	31.1	53.5	73.4	8.5	2,044	21.7
40-44	0.7	8.1	25.4	45.8	71.3	7.7	2,300	22.5
45-49	0.2	10.0	29.2	50.0	69.5	8.3	2,093	22.0
25-49	0.5	9.5	27.5	47.6	70.1	12.7	11,865	22.3

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

Whereas less than 1 percent of women in the 25-49 age group had given birth by age 15, 10 percent had given birth by age 18 and 28 percent by age 20. The percentage who had given birth by age 18 did not vary regularly by current age between age 30 and 49, but it was slightly lower among the youngest cohorts (8 percent at 25-29 and 7 percent at 20-24). The median age at first birth was

22.8 years for the youngest cohort (age 25-29) for whom a median could be computed and varied between 21.7 and 22.5 for the older cohorts, with no discernible pattern of variation.

Table 5.7 presents the median age at first birth by background characteristics and age at the time of the survey. The median age at first birth (22.3 for all women age 25-49) is higher in urban areas than in rural areas, with a difference of two years among women age 25-49. Phnom Penh has the highest median age at first birth (24.8), and Mondol Kiri/Rattanak Kiri has the lowest (21.0). Although there is a positive relationship between educational attainment and median age at first birth, the difference is seen only among woman with a secondary or higher education. There is no difference in median age at first birth between women with no schooling and women with a primary school education. Also, there is no clear pattern in median age at first birth by wealth quintile.

Table 5.7 Median age at first birth

Median age at first birth among women age 25-49 years, according to background characteristics, Cambodia 2010

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	a	23.6	22.7	23.4	23.6	23.9
Rural	22.3	21.7	21.5	22.3	21.7	21.9
Province						
Banteay Mean Chey	21.9	21.9	20.8	22.5	22.0	21.8
Kampong Cham	22.2	22.0	22.0	22.0	21.1	21.9
Kampong Chhnang	22.5	21.5	21.9	23.4	22.3	22.4
Kampong Speu	22.4	21.3	20.5	22.0	20.5	21.4
Kampong Thom	23.3	21.9	21.6	22.1	22.0	22.3
Kandal	22.8	22.4	21.9	23.2	22.5	22.6
Kratie	22.6	22.2	22.4	22.0	22.0	22.3
Phnom Penh	-	23.9	23.1	24.2	24.5	24.8
Prey Veng	21.4	21.5	21.3	22.3	21.1	21.5
Pursat	23.0	21.8	22.7	21.7	22.5	22.5
Siem Reap	23.8	22.5	22.4	22.0	21.6	22.6
Svay Rieng	21.4	21.4	20.7	22.2	21.6	21.5
Takeo	23.4	21.5	21.0	22.4	22.0	22.0
Otdar Mean Chey	21.5	21.7	21.5	21.5	22.8	21.7
Battambang/Pailin	23.4	22.6	21.0	22.0	22.7	22.5
Kampot/Kep	22.2	21.6	21.5	22.1	21.9	21.9
Preah Sihanouk/Koh Kong	22.4	23.4	21.8	22.3	22.7	22.4
Preah Vihear/Steung Treng	21.7	21.6	21.9	22.7	22.1	21.9
Mondol Kiri/Rattanak Kiri	21.4	20.1	20.4	21.6	21.0	21.0
Education						
No schooling	21.5	22.2	21.8	21.8	21.6	21.8
Primary	22.4	21.7	21.5	22.3	21.9	22.0
Secondary and higher	24.5	22.7	21.9	23.5	24.2	23.5
Wealth quintile						
Lowest	21.8	22.1	22.1	22.9	22.6	22.2
Second	21.8	21.4	21.9	22.1	22.1	21.8
Middle	22.7	21.7	21.3	22.1	21.1	21.9
Fourth	23.1	21.6	21.2	21.8	21.6	21.9
Highest	a	23.6	21.8	23.3	23.3	23.6
Total	22.8	22.0	21.7	22.5	22.0	22.3

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

5.6 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage fertility is a major health concern because teenage mothers and their children are at high risk of illness and death. Childbearing during the teenage years can have dire social consequences as well, curtailing the educational and employment opportunities of women. Early initiation into childbearing is also often associated with higher lifetime levels of fertility. Table 5.8 presents the proportion of women age 15-19 (teenagers) who are mothers or pregnant with their first child, by background characteristics.

Table 5.8 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, Cambodia 2010

Background characteristic	Percentage who: Have had a live birth	Percentage who: Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	0.1	0.3	0.4	784
16	1.0	0.6	1.6	793
17	3.2	3.6	6.8	803
18	7.3	3.3	10.6	735
19	17.6	7.8	25.5	618
Residence				
Urban	3.3	1.5	4.8	813
Rural	5.8	3.3	9.1	2,921
Province				
Banteay Mean Chey	6.9	5.6	12.5	152
Kampong Cham	6.7	5.9	12.6	349
Kampong Chhnang	3.6	3.2	6.8	151
Kampong Speu	7.3	3.0	10.3	226
Kampong Thom	2.5	2.5	5.0	188
Kandal	4.5	1.9	6.3	416
Kratie	9.0	2.0	11.0	93
Phnom Penh	3.0	0.3	3.3	432
Prey Veng	7.3	1.1	8.4	175
Pursat	4.6	0.6	5.2	108
Siem Reap	5.7	1.9	7.7	261
Svay Rieng	4.3	4.5	8.8	139
Takeo	3.9	4.8	8.7	221
Otdar Mean Chey	3.0	2.7	5.7	68
Battambang/Pailin	5.2	2.1	7.3	297
Kampot/Kep	6.7	3.6	10.3	189
Preah Sihanouk/Koh Kong	5.3	3.2	8.4	98
Preah Vihear/Steung Treng	6.2	5.3	11.4	102
Mondol Kiri/Rattanak Kiri	10.8	6.4	17.2	68
Education				
No schooling	11.3	5.7	17.0	132
Primary	8.3	4.4	12.7	1,248
Secondary and higher	3.3	2.0	5.3	2,354
Wealth quintile				
Lowest	9.0	4.3	13.3	559
Second	7.2	3.7	10.9	653
Middle	5.1	4.0	9.1	728
Fourth	4.0	2.4	6.5	872
Highest	2.9	1.1	4.0	920
Total	5.3	2.9	8.2	3,734

A small percentage of women age 15-19 have become mothers or are currently pregnant with their first child (8 percent). The percentage of women who have begun childbearing increases with age, from almost none among women age 15 to 26 percent among women age 19. Five percent of urban women begin childbearing in their teens, as do 9 percent of rural women. The level of teenage fertility is strongly associated with education. One in six teenagers who have never been to school has begun childbearing, as compared with one in eight teenagers who have a primary school education and one in 20 teenagers with a secondary or higher education. The level of teenage fertility is also strongly associated with wealth: 13 percent of the poorest teenagers have begun childbearing, as compared with only 4 percent of the richest. The percentage of teenagers who have begun childbearing varies greatly among provinces, with the lowest in Phnom Penh (3 percent) and the highest in Mondol Kiri/Rattanak Kiri (17 percent).

PRACTICE OF ABORTION 6

In many countries in the developing world, there are very few data on the practice of abortion. It is illegal in a number of countries, often has negative social connotations, and is often considered against religious principles. The practice of abortion was legalized in Cambodia in 1997. According to the 1997 law, abortions can be conducted only by medical doctors, medical practitioners, or midwives authorized by the Ministry of Health and can be carried out only in a hospital, health center, health clinic, or maternity ward. In addition, abortions can be legally conducted only before the 12th week of pregnancy unless one of a number of specific conditions that permit later abortions is met (The World Law Guide, accessed on May 23, 2011).

In order to better understand the practice of abortion in Cambodia, questions on the practice were integrated into the reproductive section of the Cambodia Demographic and Health Survey (CDHS) Woman's Questionnaire. The results in this chapter present an estimation of the frequency of abortion in the past five years. Information was collected on the person who performed the abortion, the pregnancy duration, the place where the abortion took place, and the persons who assisted with the abortion. Pregnancy outside of marriage is not socially acceptable in Cambodia, and thus it is likely that not all women who have had an abortion will be willing to report having done so. As a result, abortion statistics are likely underestimates of the true level of abortion.

6.1 NUMBER OF INDUCED ABORTIONS IN THE PAST FIVE YEARS

Table 6.1 presents the percent distribution of all women age 15 to 49 by the number of induced abortions they have had over the past five years and by background characteristics. In Cambodia, 5 percent of women age 15 to 49 reported having had one or more abortions in the five years preceding the survey.

Older women are more likely than younger women to have an abortion. Less than 1 percent of women age 15 to 19 reported having had an abortion. Ten percent of women age 30-39 have had at least one abortion. The number of abortions increases as women have more living children. Less than 1 percent of women with no children reported ever having had an abortion. As many as 10 percent of women with three to five children have had at least one abortion. The proportion declines somewhat among women with six or more children.

The practice of abortion varies slightly by urban-rural residence (6 percent in urban areas versus 5 percent in rural areas). The percentage of women who have had an abortion varies across provinces as well. Slightly more than 10 percent of women in Kampot/Kep have had an abortion, and 7 to 9 percent of women in Banteay Mean Chey, Battambang/Pailin, and Kampong Cham have had abortions. By contrast, only 2 percent of women in Mondol Kiri/Rattanak Kiri reported having had an abortion.

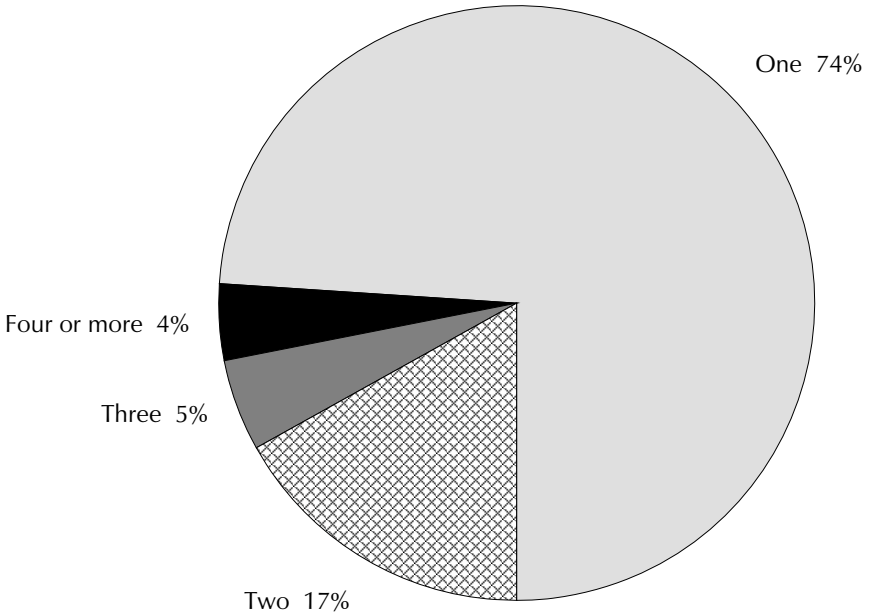
Table 6.1 Number of induced abortions

Percent distribution of women by number of induced abortions in the past five years, according to background characteristics, Cambodia 2010

Background characteristic	Number of abortions						Total	Number of women
	None	1	2	3	4+	Missing		
Age								
15-19	99.7	0.2	0.1	0.0	0.0	0.0	100.0	3,734
20-24	95.6	3.8	0.4	0.2	0.0	0.0	100.0	3,155
25-29	93.1	5.6	1.2	0.1	0.0	0.0	100.0	3,262
30-34	89.7	7.0	2.2	0.6	0.5	0.0	100.0	2,167
35-39	90.0	7.0	1.4	1.0	0.6	0.0	100.0	2,044
40-44	92.8	4.5	1.5	0.6	0.6	0.1	100.0	2,300
45-49	96.9	2.4	0.3	0.3	0.1	0.1	100.0	2,093
Number of living children								
0	99.4	0.5	0.1	0.0	0.0	0.0	100.0	6,445
1	94.7	4.3	0.8	0.2	0.0	0.1	100.0	2,892
2	91.4	6.5	1.6	0.2	0.3	0.1	100.0	3,409
3	90.3	6.9	1.4	1.0	0.4	0.0	100.0	2,488
4	90.9	6.8	1.6	0.5	0.2	0.0	100.0	1,624
5	90.7	6.2	1.7	0.5	0.9	0.0	100.0	923
6+	93.1	4.0	1.1	1.2	0.6	0.0	100.0	972
Residence								
Urban	93.9	4.6	0.9	0.3	0.3	0.0	100.0	3,936
Rural	94.7	3.9	0.9	0.3	0.2	0.0	100.0	14,818
Province								
Banteay Mean Chey	91.2	7.1	0.8	0.4	0.5	0.0	100.0	719
Kampong Cham	92.8	5.4	0.9	0.6	0.3	0.0	100.0	2,111
Kampong Chhnang	96.0	2.5	1.1	0.1	0.3	0.0	100.0	739
Kampong Speu	96.0	3.2	0.3	0.2	0.3	0.0	100.0	1,060
Kampong Thom	93.4	4.5	1.4	0.3	0.4	0.0	100.0	935
Kandal	96.3	2.3	1.2	0.1	0.1	0.0	100.0	1,920
Kratie	93.7	4.9	0.6	0.4	0.4	0.0	100.0	438
Phnom Penh	95.3	4.0	0.6	0.1	0.0	0.0	100.0	2,183
Prey Veng	96.5	2.7	0.4	0.3	0.1	0.0	100.0	1,341
Pursat	94.2	3.7	1.0	0.8	0.3	0.0	100.0	534
Siem Reap	94.1	3.7	1.3	0.7	0.2	0.1	100.0	1,233
Svay Rieng	96.5	3.1	0.3	0.1	0.0	0.0	100.0	753
Takeo	95.5	3.7	0.7	0.1	0.0	0.0	100.0	1,175
Otdar Mean Chey	96.8	2.4	0.4	0.2	0.2	0.0	100.0	252
Battambang/Pailin	92.9	4.9	1.4	0.4	0.4	0.1	100.0	1,320
Kampot/Kep	89.8	7.6	2.3	0.2	0.1	0.0	100.0	891
Preah Sihanouk/Koh Kong	93.6	5.0	0.5	0.3	0.6	0.0	100.0	439
Preah Vihear/Steung Treng	97.3	2.2	0.3	0.2	0.0	0.0	100.0	430
Mondol Kiri/Rattanak Kiri	97.9	2.1	0.0	0.0	0.0	0.0	100.0	281
Education								
No schooling	94.9	3.6	0.5	0.7	0.3	0.0	100.0	2,973
Primary	93.1	5.2	1.2	0.3	0.2	0.0	100.0	9,265
Secondary and higher	96.5	2.6	0.6	0.2	0.1	0.0	100.0	6,516
Total	94.6	4.0	0.9	0.3	0.2	0.0	100.0	18,754

Figure 6.1 presents the distribution of women who report having at least one induced abortion according to the number of abortions they have had. Although most women who have had an abortion have had only one, more than one-quarter of women who have had an abortion have had more than one. One in six women who have had abortions report having had two abortions, and 9 percent of women who have had abortions report having had three or more induced abortions. A comparison of the 2005 CDHS and 2010 CDHS shows that the percentage of women who have had multiple abortions has decreased over the past five years, from 44 percent in 2005 to 26 percent in 2010.

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



CDHS 2010

6.2 Practice of Abortion in the Past Five Years

In order to obtain information on the recent practice of abortion, detailed questions concerning abortion were asked to those women who had had an abortion since 2005. In Table 6.2 and subsequent tables, education of the respondent has been grouped into two categories, no schooling and primary education or higher, due to the relatively small number of cases.

6.2.1 Pregnancy Duration at the Time of Abortion

Table 6.2 shows the percentage of women who reported having an abortion in the past five years by their pregnancy duration at the time of abortion. The majority of these women aborted their pregnancy between the second and fourth month of pregnancy, slightly more than 40 percent had the abortion within the first two months of pregnancy, and 3 percent had the abortion after the fourth month of pregnancy.

Women with three or four living children were more likely than other women to have had an abortion, and more than half of these women had their abortion between the second and fourth month of pregnancy. Seventy-two percent of women with five or more living children had their abortion between the second and fourth month of pregnancy. The percentage of women who recently had an abortion did not vary by urban-rural residence, nor did it vary by education; however, the duration of pregnancy at the time of the abortion differed according to education. Women with a primary education or higher were more likely than women with no schooling to have had their abortion within the first two months of pregnancy (44 percent versus 28 percent). The majority of women with no schooling had their abortion between the second and fourth month of pregnancy (63 percent).

Table 6.2 Pregnancy duration at the time of abortion

Percentage of women who had at least one induced abortion in the past five years and percent distribution of the last abortion during the past five years by pregnancy duration at the time of the abortion, according to background characteristics, Cambodia 2010

Background characteristic	Percentage with at least one abortion in the past 5 years	Number of women	Pregnancy duration at the time of last abortion			Total	Number of women with abortion in the past 5 years
			<2 months	2-4 months	5+ months		
Current age							
15-34	4.7	12,317	41.2	56.5	2.3	100.0	516
35-49	6.2	6,437	42.3	53.8	3.9	100.0	337
Number of living children (including current pregnancy)							
0-2	3.7	12,746	44.0	53.0	2.9	100.0	410
3-4	9.0	4,113	45.8	52.6	1.6	100.0	327
5+	7.3	1,895	21.8	71.6	6.6	100.0	117
Residence							
Urban	5.7	3,936	42.4	54.5	3.1	100.0	195
Rural	5.1	14,818	41.4	55.7	2.9	100.0	658
Education							
No schooling	4.8	2,973	28.1	62.6	9.3	100.0	122
Primary and higher	5.3	15,781	43.9	54.2	1.9	100.0	731
Total	5.2	18,754	41.7	55.4	2.9	100.0	853

6.2.2 Place of Abortion

Women who had had an abortion in the past five years were asked where the most recent abortion took place (Table 6.3). More women had their abortion in a health facility in 2010 than in 2005. In 2010, 57 percent of women had their abortion in a health facility (as compared with 48 percent in 2005), including 14 percent who did so in a public facility and 43 percent who did so in a private facility. Twenty-five percent of abortions took place in the respondent's home, and 12 percent took place in someone else's home. These figures show that abortions are more likely to have taken place in a health facility than at home. The percentage of women who had an abortion in a health facility did not vary markedly by area of residence (54 percent in urban areas versus 58 percent in rural areas).

Table 6.3 Place of abortion

Percent distribution of the last abortion during the past five years by place of abortion, according to background characteristics, Cambodia 2010

Background characteristic	Place of abortion					Total	Number of women with abortion in the past 5 years
	Public health facility	Private health facility	Respondent home	Other home	Other/ missing		
Current age							
15-34	15.8	42.2	24.4	12.9	4.7	100.0	516
35-49	11.4	43.4	26.7	11.5	7.0	100.0	337
Pregnancy duration at the time of last abortion							
<2 months	12.0	37.9	31.9	13.4	4.9	100.0	355
2-4 months	15.1	47.4	19.4	12.1	6.1	100.0	473
5+ months	*	*	*	*	*	100.0	25
Residence							
Urban	18.7	34.8	22.4	20.5	3.6	100.0	195
Rural	12.7	45.0	26.1	10.0	6.2	100.0	658
Education							
No schooling	14.5	33.0	31.3	11.8	9.5	100.0	122
Primary and higher	14.0	44.3	24.3	12.4	5.0	100.0	731
Total	14.1	42.7	25.3	12.4	5.6	100.0	853

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

6.2.3 Persons Who Helped with the Abortion

Women who had had an abortion in the past five years were asked to identify the type of person or persons who assisted with their last abortion. If more than one person assisted with the abortion, only the most qualified person is reported in Table 6.4. The proportion of women who received help from a doctor, nurse, midwife, or other health worker decreased from the 2005 CHDS (79 percent) to the 2010 CDHS (67 percent), and more women reported having no help from anyone (8 percent in 2005 versus 22 percent in 2010). Approximately 9 percent of women received help from a relative or friend, and 2 percent received help from a traditional birth attendant or Kru Khmer. There were no substantial differences in assistance at abortion by the woman's age. However, there were variations by duration of pregnancy. Women who had their abortion at the early stage of pregnancy (before 2 months) were more likely to have no help than were those who were 2-4 months pregnant at the time of their abortion (29 percent versus 17 percent). More late-stage abortions (2-4 months) involved help from a health professional (73 percent) than early-stage abortions (before 2 months). Urban women were more likely to have help from a relative or friend (13 percent) than rural women (7 percent). The percentage of women who received help from a traditional birth attendant or Kru Khmer during their last abortion differed by education (7 percent among women with no schooling versus 1 percent among women with a primary school education or higher).

Table 6.4 Persons who helped with abortion

Percent distribution of the last abortion during the past five years by the most qualified person who helped with the abortion, according to background characteristics, Cambodia 2010

Background characteristic	Person who helped with last abortion					Total	Number of women with abortion in the past 5 years
	Doctor/ nurse/ midwife/ other health worker	Traditional birth attendant/ Kru Khmer/ pharmacist	Relative/ friend/other	No one	Missing		
Current age							
15-34	67.5	2.1	9.9	20.5	0.0	100.0	516
35-49	66.1	2.0	7.0	24.3	0.6	100.0	337
Pregnancy duration at the time of last abortion							
<2 months	60.3	1.3	9.1	29.4	0.0	100.0	355
2-4 months	72.8	1.7	8.1	17.0	0.4	100.0	473
5+ months	*	*	*	*	*	100.0	25
Residence							
Urban	65.4	1.1	13.3	20.2	0.0	100.0	195
Rural	67.4	2.4	7.4	22.5	0.3	100.0	658
Education							
No schooling	66.5	6.5	4.0	23.0	0.0	100.0	122
Primary and higher	67.0	1.4	9.5	21.8	0.3	100.0	731
Total	66.9	2.1	8.7	22.0	0.2	100.0	853

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

6.2.4 Method Used for the Abortion

Women who had had an abortion in the past five years were asked about the methods they used to induce the last abortion. The percentages shown in Table 6.5 could sum to more than 100 percent because women could list more than one method. Two-thirds (68 percent) of women who had had an abortion in the past five years used a surgical method to induce abortion, whereas 31 percent used a medical method. The majority of women (61 percent) used vacuum aspiration, a surgical method. Oral pill/tablet was the second most popular method, used by 28 percent of women. Only 9 percent of women used the curettage method, and only 3 percent used the dilatation and evacuation method. There were no substantial differences in the method of abortion according to women's age, residence, or level of education. However, there were variations by duration of pregnancy. Women who had their abortions at the late stage of pregnancy (2-4 months) were more likely than those who had their abortions at the early stage of pregnancy (before 2 months) to use a surgical method (75 percent versus 62 percent). In contrast, medical methods were used more often during the early stage of pregnancy (37 percent) than during the late stage of pregnancy (25 percent).

Table 6.5 Method used for the abortion

Percent distribution of the last abortion during the past five years by the method used to induce the abortion, according to background characteristics, Cambodia 2010

Background characteristic	Any surgical methods	Surgical methods			Any medical methods	Medical methods				Traditional methods	Other methods	Number of women with abortion in the past 5 years
		Vacuum aspiration	Curettage	Dilatation and evacuation		Oral pill/ tablet	Vaginal pill/tablet	Injectable	Intra-uterine			
Current age												
15-34	71.3	62.8	10.2	3.0	29.8	28.0	0.1	1.6	0.2	1.8	0.6	516
35-49	63.8	57.0	6.4	2.6	32.4	28.8	0.3	3.6	0.5	4.2	2.0	337
Pregnancy duration at the time of last abortion												
<2 months	62.2	59.3	2.6	1.6	36.7	35.1	0.1	1.6	0.0	2.6	0.5	355
2-4 months	75.1	63.7	13.4	3.9	25.1	23.0	0.0	2.1	0.0	2.1	1.7	473
5+ months	*	*	*	*	*	*	*	*	*	*	*	25
Residence												
Urban	72.5	65.0	7.6	5.9	28.8	26.7	0.2	1.1	0.9	1.4	1.7	195
Rural	67.1	59.2	9.0	2.0	31.4	28.7	0.1	2.8	0.1	3.2	1.0	658
Education												
No schooling	62.9	52.8	11.0	4.4	32.1	27.6	0.7	3.1	1.5	6.5	2.2	122
Primary and higher	69.2	61.8	8.3	2.6	30.6	28.4	0.1	2.3	0.1	2.1	1.0	731
Total	68.3	60.5	8.7	2.9	30.8	28.3	0.2	2.4	0.3	2.8	1.2	853

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

FAMILY PLANNING 7

This chapter presents information from the 2010 Cambodia Demographic and Health Survey (CDHS) on contraceptive knowledge, attitudes, and behavior. Comparisons are also made, where appropriate, with findings from the 2005 CDHS to evaluate trends over the past five years.

7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge about family planning is an important step toward gaining access to and using a suitable contraceptive method in a timely and effective manner. Individuals who have adequate information about the available methods of contraception are better able to make choices about planning their families. Thus, one of the main objectives of the 2010 CDHS was to assess the level of knowledge of family planning methods among women of reproductive age. To collect data on knowledge of contraception, the interviewer described each method and probed for whether the respondent recognized it.

Information was collected on 11 modern contraceptive methods: female and male sterilization, daily pills, monthly pills, intrauterine devices (IUDs), injectables, implants, male condoms, female condoms, the lactational amenorrhea method (LAM), and emergency contraception. Information was also collected on two traditional methods (rhythm or periodic abstinence and withdrawal). In addition, provision was made in the questionnaire to record any other methods named spontaneously by the respondents, referred to here as folk methods.

Table 7.1 Knowledge of contraceptive methods

Percentage of all women and currently married women who know any contraceptive method, by specific method, Cambodia 2010

Method	All women	Currently married women
Any method	99.5	99.7
Any modern method	99.5	99.7
Female sterilization	88.0	91.5
Male sterilization	59.2	64.7
Daily pill	98.3	99.1
Monthly pill	58.9	64.9
IUD	95.7	97.1
Injectables	97.7	99.0
Implants	87.5	90.8
Male condom	95.5	97.1
Female condom	23.5	25.1
Lactational amenorrhea (LAM)	29.0	33.4
Emergency contraception	9.7	11.3
Any traditional method	60.4	75.2
Rhythm	45.2	54.1
Withdrawal	50.1	66.8
Folk method	0.3	0.3
Mean number of methods known by respondents 15-49	8.4	9.0
Number of respondents	18,754	11,626

Table 7.1 shows knowledge of contraceptive methods among all women and currently married women age 15-49. Knowledge of any contraceptive method and any modern method is nearly universal among both all women and all currently married women in Cambodia. Knowledge of traditional methods is lower; three of five women and three of four currently married women know at least one traditional method. Daily pills and injectables are the most widely known methods (98 percent of all women and 99 percent of currently married women for each method), followed closely by male condoms and IUDs (96 percent of all women and 97 percent of currently married women for each method).

The mean number of methods known, a rough indicator of the breadth of knowledge of family planning methods, is high in Cambodia. Breadth of contraceptive knowledge is slightly higher among currently married women (nine methods) than all women (eight methods).

Knowledge of contraceptive methods among all women increased from 92 percent in 2000 to 99 percent in 2005 and has remained unchanged in the past five years. Some of the greatest increases in knowledge in the past five years were in knowledge of IUDs, implants, female condoms, and emergency contraception. Knowledge of IUDs increased from 84 percent to 96 percent among all women and from 91 percent to 97 percent among married women. Knowledge of implants increased from 69 percent to 88 percent among all women and from 76 percent to 91 percent among married women. Knowledge of female condoms increased from 19 percent among both all women and currently married women to 24 percent among all women and 25 percent among currently married women. Finally, knowledge of emergency contraception increased from 5 percent among all women and currently married women to 10 percent among all women and 11 percent among currently married women. Knowledge of any traditional method increased as well.

With practically all currently married women knowing at least one method of contraception, there is very little variation in knowledge by background characteristics (Table 7.2). Knowledge of any method of contraception is slightly lower in Preah Vihear/Steung Treng and Mondol Kiri/Rattanak Kiri, where 97 percent of women are aware of any method or any modern method of contraception.

Table 7.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women 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, Cambodia 2010

Background characteristic	Heard of any method	Heard of any modern method[1]	Number
Age			
15-19	99.6	99.6	382
20-24	99.6	99.6	1,679
25-29	99.8	99.8	2,572
30-34	99.9	99.9	1,811
35-39	99.9	99.9	1,747
40-44	99.6	99.6	1,861
45-49	99.2	99.2	1,574
Residence			
Urban	99.9	99.9	2,069
Rural	99.7	99.6	9,557
Province			
Banteay Mean Chey	100.0	100.0	454
Kampong Cham	98.8	98.8	1,411
Kampong Chhnang	100.0	100.0	450
Kampong Speu	100.0	100.0	698
Kampong Thom	100.0	100.0	569
Kandal	100.0	100.0	1,109
Kratie	99.8	99.6	287
Phnom Penh	100.0	100.0	1,099
Prey Veng	100.0	100.0	961
Pursat	100.0	100.0	328
Siem Reap	100.0	100.0	754
Svay Rieng	100.0	100.0	505
Takeo	100.0	100.0	778
Otdar Mean Chey	100.0	100.0	154
Battambang/Pailin	100.0	100.0	776
Kampot/Kep	100.0	100.0	568
Preah Sihanouk/Koh Kong	99.6	99.6	265
Preah Vihear/Steung Treng	97.0	96.7	261
Mondol Kiri/Rattanak Kiri	96.7	96.3	197
Education			
No schooling	99.0	98.9	2,221
Primary	99.9	99.9	6,489
Secondary and higher	99.9	99.9	2,917
Wealth quintile			
Lowest	99.4	99.3	2,299
Second	99.5	99.5	2,347
Middle	99.8	99.8	2,296
Fourth	99.8	99.8	2,319
Highest	100.0	100.0	2,364
Total	99.7	99.7	11,626

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

7.2 CURRENT USE OF CONTRACEPTIVE METHODS

The level of current use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning program activities. It is also widely used as a measure in analyzing the determinants of fertility. This section focuses on the levels of and differentials in current use of family planning in Cambodia.

Current contraceptive use among all women and currently married women is presented in Table 7.3 by age group. Fifty-one percent of married women are currently using a method of family planning. This includes 35 percent who are using a modern method and 16 percent who are using a traditional method. The most widely used method is the daily pill (15 percent), followed by withdrawal (12 percent) and injectables (10 percent).

Table 7.3 Current use of contraception by age

Percent distribution of all women, and currently married women age 15-49 by contraceptive method currently used, according to age, Cambodia 2010

			Modern method											Any traditional method	Traditional method			Not currently using	Total	Number of women
Age	Any method	Any modern method	Female sterilization	Male sterilization	Daily pill	Monthly pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Other modern method		Rhythm	Withdrawal	Folk method			
ALL WOMEN																				
15-19	2.8	1.9	0.0	0.0	1.1	0.0	0.0	0.6	0.0	0.2	0.0	0.0	0.0	0.8	0.0	0.8	0.0	97.2	100.0	3,734
20-24	23.0	16.7	0.1	0.0	8.2	0.1	1.7	5.2	0.2	1.3	0.0	0.0	0.0	6.3	0.8	5.5	0.0	77.0	100.0	3,155
25-29	42.4	30.9	0.6	0.0	14.5	0.2	3.0	9.2	0.5	2.9	0.0	0.0	0.0	11.5	2.1	9.4	0.0	57.6	100.0	3,262
30-34	51.9	36.0	2.5	0.0	16.5	0.3	3.1	10.7	0.7	2.1	0.0	0.0	0.0	15.9	3.6	12.2	0.0	48.1	100.0	2,167
35-39	55.4	38.7	4.5	0.1	16.0	0.3	3.4	11.0	0.5	2.9	0.0	0.0	0.0	16.6	5.2	11.3	0.1	44.6	100.0	2,044
40-44	42.6	27.6	3.0	0.1	10.6	0.5	2.0	9.0	0.2	1.9	0.1	0.0	0.0	15.0	4.1	10.7	0.1	57.4	100.0	2,300
45-49	21.5	12.4	2.2	0.0	4.0	0.2	1.2	3.3	0.0	1.4	0.0	0.0	0.0	9.1	3.7	5.3	0.1	78.5	100.0	2,093
Total	31.4	21.7	1.5	0.0	9.5	0.2	1.9	6.5	0.3	1.7	0.0	0.0	0.0	9.7	2.4	7.3	0.0	68.6	100.0	18,754
CURRENTLY MARRIED WOMEN																				
15-19	27.1	18.8	0.0	0.0	10.8	0.1	0.4	5.6	0.1	1.9	0.0	0.0	0.0	8.2	0.5	7.8	0.0	72.9	100.0	382
20-24	43.2	31.4	0.2	0.0	15.4	0.2	3.1	9.7	0.3	2.4	0.0	0.0	0.0	11.8	1.5	10.4	0.0	56.8	100.0	1,679
25-29	53.6	39.1	0.8	0.0	18.4	0.3	3.7	11.7	0.6	3.6	0.0	0.0	0.0	14.5	2.7	11.8	0.0	46.4	100.0	2,572
30-34	61.9	43.0	3.0	0.0	19.8	0.4	3.8	12.8	0.9	2.3	0.0	0.0	0.0	19.0	4.4	14.6	0.0	38.1	100.0	1,811
35-39	64.5	45.1	5.1	0.1	18.8	0.4	3.9	12.9	0.6	3.4	0.0	0.0	0.0	19.5	6.1	13.2	0.1	35.5	100.0	1,747
40-44	52.2	33.7	3.6	0.2	13.1	0.7	2.5	10.9	0.3	2.3	0.1	0.0	0.0	18.5	5.1	13.3	0.1	47.8	100.0	1,861
45-49	28.4	16.4	2.9	0.0	5.4	0.3	1.6	4.3	0.0	1.9	0.0	0.0	0.0	12.1	4.9	7.0	0.2	71.6	100.0	1,574
Total	50.5	34.9	2.4	0.0	15.4	0.4	3.1	10.4	0.4	2.7	0.0	0.0	0.0	15.7	3.9	11.7	0.1	49.5	100.0	11,626

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

As shown in Table 7.4.1, there are marked differences in use of contraceptives by women's background characteristics. Among those currently married, urban women are more likely than rural women to be using any method of contraception (55 percent versus 50 percent) and any traditional method (24 percent versus 14 percent). Meanwhile, rural women are more likely to use modern methods than urban women (36 percent versus 31 percent), particularly injectables (12 percent of rural women versus 4 percent of urban women). However, urban women are twice as likely to use IUDs as rural women (5 percent versus 3 percent). There is also substantial variation in current use by province. Current use of any method among married women is highest in Kandal and Phnom Penh (62 and 56 percent, respectively) and lowest in Preah Vihear/Steung Treng (37 percent).

Contraceptive use is associated with the number of living children a woman has; use of any method is highest among women with three to four children (59 percent) and lowest among women with no children (9 percent). Current contraceptive use increases with educational attainment and wealth quintile. Forty-three percent of married women with no schooling are currently using any method of contraception, as compared with 57 percent of married women with a secondary or higher education. Use of contraception rises gradually with rising wealth quintile; the percentage of currently married women using contraception ranges from 45 percent in the lowest wealth quintile to 56 percent in the highest quintile.

Table 7.4.1 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Cambodia 2010

Background characteristic	Any method	Any modern method	Modern method										Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	Male sterilization	Daily pill	Monthly pill	IUD	Injectables	Implants	Male condom	Female condom	LAM		Rhythm	Withdrawal	Folk method			
Number of living children																			
0	8.8	3.6	0.2	0.0	1.6	0.1	0.3	0.7	0.0	0.7	0.0	0.0	5.1	1.5	3.6	0.0	91.2	100.0	860
1-2	53.9	37.3	1.1	0.0	18.3	0.2	3.2	10.4	0.5	3.5	0.1	0.0	16.6	3.7	13.0	0.0	46.1	100.0	5,404
3-4	58.5	41.6	4.5	0.1	16.1	0.6	3.8	13.1	0.6	2.9	0.0	0.0	16.9	4.7	12.2	0.0	41.5	100.0	3,632
5+	44.0	28.6	3.1	0.1	11.6	0.4	2.4	10.0	0.2	0.8	0.0	0.0	15.4	4.2	10.8	0.4	56.0	100.0	1,731
Residence																			
Urban	54.8	30.7	2.9	0.0	12.4	0.4	5.3	3.9	0.5	5.1	0.0	0.0	24.1	9.2	14.8	0.1	45.2	100.0	2,069
Rural	49.6	35.8	2.3	0.0	16.0	0.3	2.6	11.8	0.4	2.2	0.0	0.0	13.8	2.7	11.0	0.1	50.4	100.0	9,557
Province																			
Banteay Mean Chey	51.4	43.3	2.5	0.0	26.4	0.1	1.7	9.8	0.2	2.4	0.0	0.0	8.2	1.2	7.0	0.0	48.6	100.0	454
Kampong Cham	51.8	28.3	1.8	0.0	11.2	0.4	1.6	10.2	0.2	2.8	0.0	0.0	23.6	6.1	17.2	0.2	48.2	100.0	1,411
Kampong Chhnang	39.7	26.5	2.6	0.0	11.9	0.3	1.0	9.4	0.2	1.1	0.0	0.0	13.2	2.5	10.5	0.2	60.3	100.0	450
Kampong Speu	53.3	41.5	3.6	0.3	19.3	0.2	4.4	10.8	0.8	2.1	0.0	0.0	11.9	1.5	10.4	0.0	46.7	100.0	698
Kampong Thom	52.0	39.6	1.3	0.0	15.5	0.8	3.2	13.5	2.9	2.3	0.0	0.0	12.5	2.6	9.8	0.0	48.0	100.0	569
Kandal	61.8	38.0	3.7	0.0	13.5	0.3	5.1	12.0	0.0	3.0	0.2	0.0	23.8	4.2	19.6	0.0	38.2	100.0	1,109
Kratie	39.6	23.9	2.0	0.0	10.6	0.4	0.9	7.7	0.0	2.2	0.2	0.0	15.7	4.3	11.4	0.0	60.4	100.0	287
Phnom Penh	56.4	29.3	2.1	0.0	11.9	0.4	5.1	3.2	0.3	6.4	0.0	0.0	27.1	11.1	15.8	0.2	43.6	100.0	1,099
Prey Veng	48.5	41.3	3.9	0.0	18.1	0.4	2.6	13.5	0.0	2.9	0.0	0.0	7.2	0.9	6.4	0.0	51.5	100.0	961
Pursat	40.6	34.3	1.3	0.1	13.7	1.2	1.1	15.3	0.1	1.5	0.0	0.0	6.3	1.1	5.3	0.0	59.4	100.0	328
Siem Reap	44.7	33.0	1.6	0.0	16.9	0.1	3.1	8.0	0.1	3.2	0.0	0.0	11.7	1.3	10.4	0.0	55.3	100.0	754
Svay Rieng	50.5	35.5	2.4	0.2	14.8	0.2	4.0	12.9	0.4	0.6	0.0	0.0	14.9	6.6	8.3	0.0	49.5	100.0	505
Takeo	47.2	37.9	2.7	0.0	19.3	0.0	3.8	9.6	0.2	2.3	0.0	0.0	9.3	0.6	8.7	0.0	52.8	100.0	778
Otdar Mean Chey	47.2	43.9	1.7	0.0	25.7	0.1	2.1	11.9	0.2	2.0	0.0	0.1	3.3	1.1	2.0	0.2	52.8	100.0	154
Battambang/Pailin	50.9	36.5	2.1	0.3	17.6	0.6	2.7	10.6	0.0	2.4	0.0	0.0	14.3	4.6	9.8	0.0	49.1	100.0	776
Kampot/Kep	52.8	33.3	2.0	0.0	12.5	0.1	3.7	12.4	1.7	1.0	0.0	0.0	19.4	4.5	14.7	0.2	47.2	100.0	568
Preah Sihanouk/Koh Kong	51.2	34.3	2.2	0.1	14.4	0.6	2.4	8.1	2.6	3.9	0.0	0.0	16.9	6.1	10.8	0.0	48.8	100.0	265
Preah Vihear/Steung Treng	37.3	32.3	0.9	0.0	13.2	0.6	0.8	14.8	0.1	1.7	0.1	0.0	5.1	1.5	3.6	0.0	62.7	100.0	261
Mondol Kiri/Rattanak Kiri	43.1	32.7	0.8	0.0	16.1	0.3	1.1	13.8	0.1	0.6	0.0	0.0	10.4	0.3	10.0	0.1	56.9	100.0	197
Education																			
No schooling	42.5	33.8	2.7	0.1	16.0	0.4	1.8	11.1	0.2	1.4	0.0	0.0	8.7	1.3	7.4	0.0	57.5	100.0	2,221
Primary	50.2	35.6	2.2	0.0	15.5	0.4	2.9	11.9	0.5	2.2	0.0	0.0	14.7	2.6	11.9	0.1	49.8	100.0	6,489
Secondary and higher	57.3	34.2	2.6	0.1	14.7	0.3	4.5	6.6	0.5	4.9	0.0	0.0	23.2	8.7	14.5	0.0	42.7	100.0	2,917
Wealth quintile																			
Lowest	45.2	35.2	2.2	0.0	16.4	0.3	2.3	12.7	0.3	1.0	0.0	0.0	10.0	1.3	8.7	0.0	54.8	100.0	2,299
Second	47.5	37.0	2.2	0.1	17.4	0.2	2.6	12.5	0.4	1.5	0.1	0.0	10.4	1.5	8.8	0.1	52.5	100.0	2,347
Middle	51.3	37.0	1.8	0.1	17.0	0.3	2.2	13.1	0.4	2.0	0.0	0.0	14.4	2.8	11.5	0.1	48.7	100.0	2,296
Fourth	52.6	33.9	2.6	0.0	14.7	0.2	2.7	9.6	0.2	3.7	0.0	0.0	18.7	4.2	14.5	0.0	47.4	100.0	2,319
Highest	56.0	31.4	3.3	0.1	11.4	0.7	5.4	4.3	0.8	5.4	0.0	0.0	24.6	9.6	14.9	0.1	44.0	100.0	2,364
Total	50.5	34.9	2.4	0.0	15.4	0.4	3.1	10.4	0.4	2.7	0.0	0.0	15.7	3.9	11.7	0.1	49.5	100.0	11,626

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

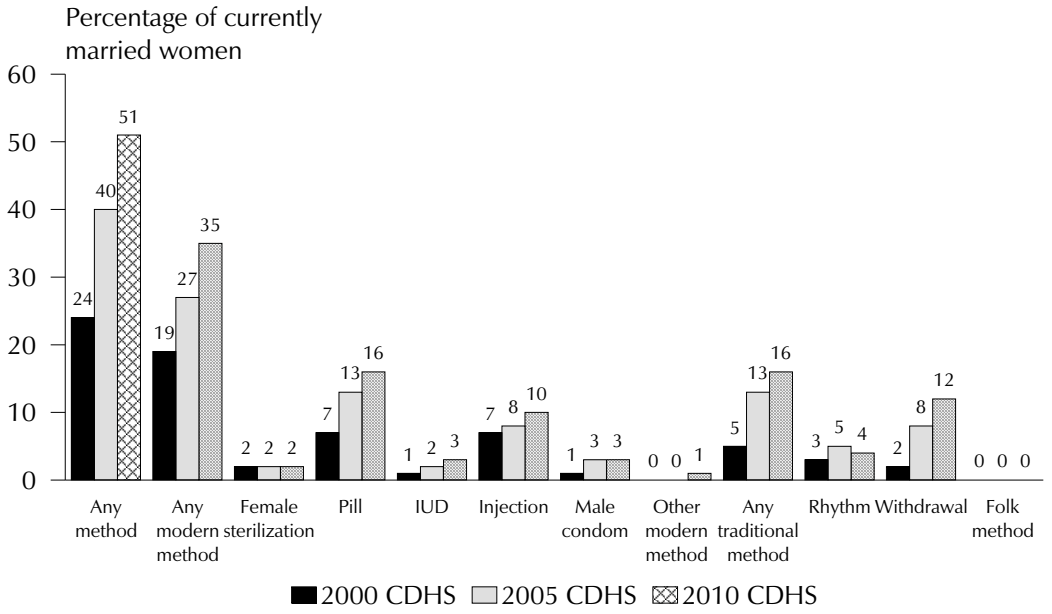
Since the 2005 CDHS, the proportion of currently married women who are using any method of contraception has increased significantly, from 40 percent to 51 percent (Table 7.4.2 and Figure 7.1). The proportion of currently married women using any modern method has increased from 27 percent to 35 percent, and the proportion using any traditional method has increased from 13 percent to 16 percent. In the case of individual methods, the largest increases have been achieved among currently married women using pills (13 percent in 2005 to 16 percent in 2010) and withdrawal (8 percent to 12 percent).

Table 7.4.2 Trends in current use of contraception

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to CDHS 2000, CDHS 2005, and CDHS 2010

Method	CDHS 2000	CDHS 2005	CDHS 2010
Any method	**23.8**	**40.0**	**50.5**
Any modern method	**18.5**	**27.2**	**34.9**
Female sterilization	1.5	1.7	2.4
Pill	7.2	12.6	15.7
IUD	1.3	1.8	3.1
Injection	7.4	7.9	10.4
Male condom	0.9	2.9	2.7
Other modern	0.2	0.3	0.5
Any traditional method	**5.3**	**12.8**	**15.7**
Rhythm	2.7	4.5	3.9
Withdrawal	2.3	8.3	11.7
Folk method	0.1	0.1	0.1
Not currently using	76.2	60.0	49.5
Total	100.0	100.0	100.0
Number of women	9,071	10,087	11,626

Figure 7.1 Trends in Contraceptive Use among Currently Married Women



CDHS 2010

7.3 USE OF SOCIAL MARKETING BRANDS

Current users of daily pills and condoms were asked for the brand name of the pills and condoms they last used. This information is useful in monitoring the success of social marketing programs that promote a specific brand.

Socially marketed contraceptive brands are prevalent in Cambodia. Just under half of daily pill users (49 percent) use "OK" brand pills, and another 48 percent use "Srey Pich" brand pills. Three of five condom users (60 percent) use OK brand condoms and 40 percent use "#1" brand condoms (Table 7.5). Srey Pich pills and #1 condoms are more popular among rural women than among urban women (51 percent versus 28 percent for pill users and 42 percent versus 35 percent for condom users). In contrast, OK pills and OK condoms are more popular among urban women than among rural women (62 percent versus 47 percent for pill users and 63 percent versus 58 percent for condom users).

Table 7.5 Use of social marketing brand pills and condoms

Percentage of pill and condom users age 15-49 using a social marketing brand, by background characteristics, Cambodia 2010

Background characteristic	Among pill users: Percentage using Srey Pich pill	Among pill users: Percentage using OK pill	Among pill users: Number of women using the pill	Among condom users: Percentage using #1	Among condom users: Percentage using OK condom	Among condom users: Number of women using condoms
Residence						
Urban	28.2	61.5	260	35.4	63.3	100
Rural	51.1	47.1	1,549	42.1	57.7	198
Province						
Banteay Mean Chey	47.7	49.7	120	*	*	11
Kampong Cham	32.7	62.2	162	*	*	39
Kampong Chhnang	36.5	61.0	55	*	*	5
Kampong Speu	83.2	14.9	137	*	*	13
Kampong Thom	41.2	54.7	92	*	*	13
Kandal	45.7	52.9	151	*	*	27
Kratie	51.2	45.4	31	*	*	6
Phnom Penh	28.4	60.4	132	(36.5)	(63.5)	69
Prey Veng	52.8	45.1	178	(43.2)	(56.8)	30
Pursat	42.5	56.0	49	*	*	5
Siem Reap	72.8	24.2	128	*	*	17
Svay Rieng	19.1	80.9	76	*	*	3
Takeo	55.8	44.2	150	*	*	18
Otdar Mean Chey	64.1	35.0	40	*	*	3
Battambang/Pailin	42.6	54.8	135	*	*	17
Kampot/Kep	28.2	70.9	71	*	*	6
Preah Sihanouk/Koh Kong	46.4	47.0	38	(32.2)	(64.4)	10
Preah Vihear/Steung Treng	67.0	28.5	33	*	*	4
Mondol Kiri/Rattanak Kiri	39.6	58.2	32	*	*	1
Education						
No schooling	43.4	54.6	361	65.4	34.6	26
Primary	52.4	45.7	1,018	39.4	60.4	137
Secondary and higher	40.8	52.8	429	35.6	63.5	136
Wealth quintile						
Lowest	55.5	43.2	378	*	*	22
Second	45.9	53.0	414	*	*	30
Middle	52.4	46.3	397	(50.4)	(48.8)	45
Fourth	50.9	46.5	345	33.3	66.7	81
Highest	29.8	59.0	275	35.9	63.0	120
Total	47.8	49.1	1,809	39.9	59.6	298

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

7.4 KNOWLEDGE OF FERTILE PERIOD

The successful use of natural family planning methods depends largely on an understanding of when during the menstrual cycle a woman is most likely to conceive. All women in the survey were asked about their knowledge of the fertile period. Specifically, they were asked whether there are certain days between two menstrual periods when a woman is more likely to become pregnant if she has sexual intercourse. Those who said yes were further asked whether this time is just before the period begins, during the period, right after the period ends, or halfway between the two periods.

Table 7.6 shows that 70 percent of women do not know when a woman's fertile period is, and only 16 percent correctly state that the fertile time in a woman's menstrual cycle is halfway between two periods. Knowledge of the fertile period is much higher among women who are users of the rhythm method, with 67 percent possessing accurate knowledge of the timing of the fertile period. However, 13 percent of rhythm method users report that they don't know when the fertile period is, and an additional 18 percent believe it is right after a woman's period has ended. Thus, one-third of users of the rhythm method are at risk of unwanted pregnancy.

Table 7.6 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, Cambodia 2010

Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual period begins	0.3	0.6	0.6
During her menstrual period	0.8	0.6	0.6
Right after her menstrual period has ended	17.8	7.7	7.9
Halfway between two menstrual periods	66.7	15.1	16.4
Other	0.2	0.1	0.1
No specific time	1.4	5.0	4.9
Don't know	12.7	70.9	69.5
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	453	18,301	18,754

7.5 TIMING OF STERILIZATION

In Cambodia, 2.4 percent of married women of reproductive age rely on sterilization as their method of contraception. Table 7.7 shows the distribution of sterilized women by age at the time of their sterilization. Approximately three in five women who have been sterilized had the operation before the age of 35. The most common age range was 30 to 34 (31 percent of women). Twenty-one percent of women who have been sterilized had the operation between the ages of 25 and 29 and 26 percent between the ages of 35 and 39. The median age at sterilization was 31.7, a figure that has not varied substantially over time.

Table 7.7 Timing of sterilization

Percent distribution of sterilized women age 15-49 by age at the time of sterilization and median age at sterilization, according to the number of years since the operation, Cambodia 2010

Years since operation	Age at time of sterilization						Total	Number of women	Median age[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	3.8	19.9	28.8	31.5	15.3	0.6	100.0	118	32.0
2-3	(3.7)	(12.5)	(31.4)	(28.3)	(23.1)	(0.9)	100.0	47	33.5
4-5	(14.0)	(6.6)	(28.3)	(32.3)	(18.9)	(0.0)	100.0	29	33.7
6-7	*	*	*	*	*	*	*	17	30.1
8-9	*	*	*	*	*	*	*	16	34.8
10+	17.9	37.3	37.3	7.5	0.0	0.0	100.0	59	a
Total	8.8	21.2	31.1	25.7	12.8	0.4	100.0	286	31.7

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Median age is calculated only for women sterilized at less than 40 years of age to avoid problems due to censoring.
a = Not calculated due to censoring

7.6 SOURCE OF FAMILY PLANNING METHODS

Data on sources of modern contraceptives are important for family planning program managers and service providers. Women who reported using a modern method of contraception at the time of the survey were asked where they last obtained the method, and interviewers recorded the name and location of the source. To ensure accuracy in reporting, supervisors and editors verified the type of source from the written response.

Table 7.8 shows that users of modern contraceptives obtain their methods from the public sector more than from the private medical sector (52 percent compared with 30 percent). Forty-one percent of all contraceptive users obtain their methods from public health centers, and 14 percent obtain their methods from a private pharmacy. Approximately 8 percent of women who use contraception obtain their methods from a community distributor and 5 percent from a shop.

Table 7.8 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Cambodia 2010

Source	Female sterilization	Male sterilization	Daily pill	Monthly pill	IUD	Injectables	Implants	Male condom	Other modern method[1]	Total[2]
Public sector	82.1	*	43.1	(4.2)	56.5	63.0	46.7	30.8	*	51.6
National hospital (PP)	20.4	*	0.4	(0.0)	4.2	0.2	2.3	1.4	*	2.2
Provincial hospital (RH)	32.8	*	0.1	(0.0)	1.9	0.3	2.0	0.3	*	2.6
District hospital (RH)	22.5	*	0.5	(0.0)	4.3	2.2	6.3	0.6	*	3.0
Health center	3.4	*	39.9	(4.2)	42.8	57.1	28.5	26.7	*	41.1
Health post	0.0	*	1.1	(0.0)	0.0	1.4	0.0	0.0	*	0.9
Military hospital	1.1	*	0.0	(0.0)	0.0	0.0	0.0	1.3	*	0.2
Other public sector	1.8	*	1.2	(0.0)	3.3	1.9	7.7	0.6	*	1.7
Private medical sector	11.4	*	30.7	(68.7)	23.0	29.0	32.9	52.8	*	30.3
Private hospital	1.6	*	1.1	(0.0)	1.5	3.0	3.0	1.0	*	1.8
Private clinic	6.3	*	4.6	(3.2)	13.3	12.9	14.0	5.9	*	8.2
Pharmacy	0.0	*	21.4	(65.6)	0.0	1.9	0.0	45.5	*	14.2
Other private medical	3.6	*	3.6	(0.0)	8.3	11.2	15.9	0.4	*	6.1
Other sources	0.0	*	24.1	(27.1)	0.0	5.0	0.0	12.2	*	13.3
Shop	0.0	*	10.1	(22.8)	0.0	0.0	0.0	5.5	*	5.1
Community distributor	0.0	*	13.2	(0.0)	0.0	4.9	0.0	5.6	*	7.7
Friend/relative	0.0	*	0.8	(4.3)	0.0	0.1	0.0	1.1	*	0.5
Other	6.2	*	2.0	(0.0)	6.9	2.9	11.4	3.6	*	3.2
Don't know/missing	0.3	*	0.0	(0.0)	13.6	0.1	9.0	0.6	*	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	286	6	1,788	41	359	1,218	52	319	4	4,072

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes 3 female condom users and 1 user of other modern method
[2] Includes other modern methods but excludes lactational amenorrhea method (LAM)
PP = Phnom Penh
RH = Referral hospital

There is notable variation in source of method by type of contraceptive. Users of daily pills most often obtain them from a public health center (40 percent) or a pharmacy (21 percent). The public sector is the largest source of IUDs. More than half of women (57 percent) who use an IUD obtained it from the public sector, primarily a health center (43 percent). An additional 23 percent obtained their IUD from a private medical sector source. The public sector is also the most common source of contraception among women who use injectables (63 percent) and implants (47 percent). Finally, provincial hospitals and district hospitals are the most commonly cited sources of female sterilization.

Since the 2005 CDHS, there have been changes in the most commonly cited sources of contraceptive methods. In 2010, users of IUDs were less likely to obtain them from the private medical sector and more likely to obtain them from the public sector, and pharmacies replaced shops as the predominant source of the monthly pill and the male condom.

7.7 INFORMED CHOICE

Current users of modern methods who are well informed about the side effects and problems associated with different methods and who know of a range of method options are in a better position to make an informed choice about the method they would like to use. Current users of various modern contraceptive methods were asked whether, at the time they were initiating their use of a particular method, they were informed about the possible side effects or problems they might have with the method and what to do if they experienced side effects. Table 7.9 shows the percentage of current users of modern methods who were informed about side effects or problems with the method used, informed about what to do if they experienced side effects, and informed of other methods they could use, according to the type of method they are currently using and initial source of the method.

Table 7.9 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source of method, Cambodia 2010

	Among women who started last episode of modern contraceptive method within five years preceding the survey:			
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if experienced side effects	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method				
Female sterilization	80.8	77.9	74.7	184
Pill[1]	70.2	68.0	68.3	1,481
IUD	93.4	92.9	83.3	300
Injectables	76.9	76.2	72.9	974
Implants	89.8	90.7	74.0	47
Initial source of method[2]				
Public sector	85.6	84.8	81.8	1,712
National hospital (PP)	(81.8)	(84.3)	(81.3)	52
Provincial hospital (RH)	78.9	74.7	69.9	69
District hospital (RH)	86.1	85.7	79.9	114
Health center	86.4	85.2	82.8	1,406
Health post	78.8	76.3	73.6	23
Military hospital	*	*	*	3
Other public sector	(83.0)	(89.4)	(77.3)	45
Private sector	64.1	60.9	60.1	819
Private hospital	(77.0)	(66.4)	(62.8)	51
Private clinic	73.7	71.9	71.1	267
Pharmacy	45.9	40.9	45.5	292
Other private medical sector	74.0	73.6	65.8	209
Other source	55.0	52.9	54.0	351
Shop	34.9	31.0	34.4	126
Community distributor	68.2	67.1	66.2	205
Friend/relative	*	*	*	20
Other	77.6	79.5	64.2	96
Total	75.7	74.2	71.8	2,986

Note: Table excludes users who obtained their method from friends/relatives. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes daily pill and monthly pill
[2] Source at start of current episode of use
PP = Phnom Penh
RH = Referral hospital

Overall, three-quarters (76 percent) of contraceptive users were informed about side effects of their method when they initiated their current use of that method. Seventy-four percent of women were informed about what to do if they experienced side effects, and 72 percent were informed by a health or family planning worker about other methods they could use.

Findings on informed choice varied by method. Users of IUDs and implants were most likely to have received all three types of information relating to informed choice. Only 70 percent of users of the monthly pill were informed of side effects, and 68 percent were told about what to do in the event of side effects. Users of pills (68 percent) were least likely to be informed of other methods.

7.8 FUTURE USE OF CONTRACEPTION

Intention to use a method of contraception is an important indicator of the potential demand for family planning services. Currently married women who were not using contraception at the time of the survey were asked about their intention to use family planning methods in the future. The results are presented in Table 7.10.

Table 7.10 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, Cambodia 2010

Intention to use in the future	Number of living children[1]					Total
	0	1	2	3	4+	
Intends to use	50.7	70.0	63.4	50.1	32.6	52.9
Unsure	9.7	5.6	5.2	5.9	5.7	5.9
Does not intend to use	39.6	23.9	31.2	43.6	61.4	40.9
Missing	0.0	0.5	0.3	0.4	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	432	1,371	1,300	984	1,663	5,750

[1] Includes current pregnancy

Fifty-three percent of currently married women who were not using any contraception at the time of the survey reported that they intend to use a family planning method sometime in the future, approximately the same percentage as in 2005 (52 percent). Forty-one percent do not intend to use any method, and 6 percent are unsure of their intention. The proportion of women who intend to use contraception in the future varied by number of living children, increasing from 51 percent among those with no living children to a peak of 70 percent among those with one child. These women are most likely interested in spacing subsequent births.

7.9 EXPOSURE TO FAMILY PLANNING MESSAGES

The media can be a major source of family planning messages. Information about public exposure to messages on a particular type of media allows policymakers to ensure the use of the most effective means of communication for various target groups in the population. To assess the effectiveness of electronic and print sources in disseminating family planning information, respondents in the 2010 CDHS were asked whether they had heard or seen family planning messages on the radio or television or read a family planning message in a newspaper or magazine in the months leading up to the survey. The results are shown in Table 7.11.

Media messages about family planning were largely accessed through television and radio, with lesser access through the print media. For example, 66 percent of women had recently heard about family planning on television and 55 percent had recently heard about it on the radio. By contrast, only 21 percent of women obtained such information from newspapers or magazines. Nearly 25 percent of women were not exposed to a family planning message through any of these three media sources in the months preceding the survey.

Significant variation was observed in exposure to family planning messages by background characteristics. Younger women were more likely to be exposed to family planning messages than older women, and women in rural areas had less exposure to essential information on health and family planning through the media than women in urban areas. For example, 29 percent of rural women had not seen or heard family planning messages in any of the three types of media, as compared with only 10 percent of urban women. Educational attainment and wealth quintile were both associated with access to family planning messages in the media. For example, only 7 percent of women with no schooling were exposed to a family planning message in a newspaper or magazine, as compared with 34 percent of women with a secondary or higher education. In addition, the proportion of women who had not seen or heard family planning messages in any of the three types of media decreased steadily from 43 percent among those in the lowest wealth quintile to 10 percent among those in the highest wealth quintile.

Table 7.11 Exposure to family planning messages

Percentage of women age 15-49 who heard or saw a family planning message on the radio or television or in a newspaper in the past few months, according to background characteristics, Cambodia 2010

Background characteristic	Radio	Television	Newspaper/ magazine	None of these three media sources	Number
Age					
15-19	57.8	71.4	24.7	18.9	3,734
20-24	59.7	70.5	26.6	19.7	3,155
25-29	56.5	67.6	21.8	22.9	3,262
30-34	52.2	63.1	19.2	27.3	2,167
35-39	48.2	60.2	16.3	32.0	2,044
40-44	51.6	59.2	15.0	31.4	2,300
45-49	53.3	61.2	14.5	28.9	2,093
Residence					
Urban	57.3	87.7	33.0	9.7	3,936
Rural	54.3	60.0	17.4	28.8	14,818
Province					
Banteay Mean Chey	47.1	68.7	31.2	25.4	719
Kampong Cham	33.6	38.0	8.4	51.0	2,111
Kampong Chhnang	84.6	77.9	19.6	8.3	739
Kampong Speu	65.9	81.9	14.9	14.1	1,060
Kampong Thom	56.7	58.0	24.4	29.8	935
Kandal	49.0	73.1	18.0	22.2	1,920
Kratie	47.8	40.2	11.6	43.6	438
Phnom Penh	55.2	91.0	32.5	7.0	2,183
Prey Veng	73.4	87.0	38.8	12.2	1,341
Pursat	79.9	86.8	59.2	8.3	534
Siem Reap	66.7	60.1	16.4	24.0	1,233
Svay Rieng	60.3	82.8	23.6	11.3	753
Takeo	46.2	52.4	11.6	39.0	1,175
Otdar Mean Chey	47.4	42.7	19.5	36.7	252
Battambang/Pailin	49.9	64.5	11.4	24.2	1,320
Kampot/Kep	47.5	50.5	12.8	34.2	891
Preah Sihanouk/Koh Kong	44.6	57.9	20.6	27.7	439
Preah Vihear/Steung Treng	67.1	30.9	11.7	28.9	430
Mondol Kiri/Rattanak Kiri	45.9	29.2	9.2	40.8	281
Education					
No schooling	43.7	44.5	7.2	41.4	2,973
Primary	53.8	61.4	15.5	28.0	9,265
Secondary and higher	61.6	81.8	34.1	12.7	6,516
Wealth quintile					
Lowest	47.4	39.2	10.2	43.3	3,388
Second	52.6	54.4	13.0	31.9	3,516
Middle	58.6	64.0	17.1	25.6	3,594
Fourth	57.0	76.4	23.1	18.1	3,827
Highest	57.9	87.4	35.5	10.0	4,428
Total	54.9	65.8	20.7	24.8	18,754

Exposure to family planning messages through the media was highest in Phnom Penh, Kampong Chhnang, and Pursat and lowest in Kampong Cham, Kratie, and Mondol Kiri/Rattanak Kiri.

7.10 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

Family planning services are important for the improvement of mother and child health. Thus, it is crucial that every opportunity to meet a woman's family planning needs be fully exploited. In reality, however, health care providers miss these opportunities. Information on missed opportunities was gathered by asking women who were not currently using a contraceptive method whether they had visited a health facility in the 12 months preceding the survey. Those who visited a health facility were asked whether anyone at the facility had discussed family planning with them during any of their visits. Women were also asked whether they had been visited by a fieldworker who talked with them about family planning in the 12 months preceding the survey.

Results showed that three-quarters of nonusers visited a health facility and did not have any contact with health care providers or fieldworkers with whom family planning was discussed (Table 7.12). Only 19 percent of nonusers reported being visited by fieldworkers who discussed family planning issues. Twenty-eight percent of nonusers visited a health facility during the 12 months preceding the survey, but the majority of these women did not discuss family planning with any health care provider (16 percent).

There have not been any improvements in maximizing opportunities to meet a woman's family planning needs in the past five years. Levels of missed opportunities among nonusers were practically the same in the 2010 CDHS as in the 2005 CDHS.

Table 7.12 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who neither discussed family planning with a fieldworker nor at a health facility, by background characteristics, Cambodia 2010

Background characteristic	Percentage of women who were visited by 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 fieldworker nor at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	12.7	3.4	11.6	85.5	3,630
20-24	17.8	13.6	16.7	74.4	2,428
25-29	21.8	20.5	19.7	66.7	1,880
30-34	21.0	19.3	19.6	69.0	1,043
35-39	22.1	15.5	19.2	70.5	912
40-44	24.2	12.9	15.7	70.1	1,321
45-49	21.6	9.3	16.7	74.3	1,643
Residence					
Urban	9.1	8.1	14.3	85.4	2,798
Rural	21.3	12.7	16.5	72.4	10,060

Continued…

Table 7.12—*Continued*

Background characteristic	Percentage of women who were visited by 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 fieldworker nor at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Province					
Banteay Mean Chey	23.0	13.4	21.0	70.4	485
Kampong Cham	26.2	9.6	20.5	67.6	1,378
Kampong Chhnang	32.5	24.7	18.3	56.9	558
Kampong Speu	17.6	14.5	16.5	73.5	688
Kampong Thom	15.8	11.6	19.8	76.6	636
Kandal	6.3	7.9	20.0	87.8	1,234
Kratie	6.3	4.5	16.7	90.0	324
Phnom Penh	6.1	5.7	11.5	89.1	1,562
Prey Veng	16.0	8.1	7.3	78.8	872
Pursat	48.0	30.4	12.8	44.5	400
Siem Reap	30.2	18.0	9.2	63.9	892
Svay Rieng	20.9	7.8	11.3	73.5	497
Takeo	15.0	11.0	20.6	79.4	807
Otdar Mean Chey	11.7	11.0	10.4	81.3	180
Battambang/Pailin	21.3	16.9	14.7	71.9	926
Kampot/Kep	22.6	9.5	18.2	74.6	590
Preah Sihanouk/Koh Kong	23.0	12.8	15.9	70.1	303
Preah Vihear/Steung Treng	17.2	9.5	17.6	76.5	332
Mondol Kiri/Rattanak Kiri	13.6	7.6	32.9	84.2	196
Education					
No education	20.8	11.2	17.3	73.9	2,022
Primary	21.3	14.1	16.8	71.7	5,996
Secondary and higher	14.5	9.0	14.5	80.2	4,840
Wealth quintile					
Lowest	22.7	14.8	17.2	69.5	2,345
Second	21.7	13.3	16.8	72.0	2,402
Middle	23.3	11.8	15.3	71.6	2,411
Fourth	18.1	11.6	17.1	75.7	2,600
Highest	10.0	8.2	14.1	84.6	3,101
Total	18.6	11.7	16.0	75.2	12,858

OTHER PROXIMATE DETERMINANTS OF FERTILITY 8

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

8.1 MARITAL STATUS

Table 8.1 shows the distribution of all women and men age 15-49 by current marital status. The data broadly indicate that 31 percent of Cambodian women of reproductive age have never been married, and 62 percent are currently married or cohabiting as if married. Four percent of women of reproductive age are divorced or separated, and 3 percent are widows. A higher proportion of men age 15-49 have never been married (39 percent). However, this is partly a function of age distribution. Fewer men than women in the youngest age groups have ever been married. Almost no men in the two oldest age groups have never been married.

Table 8.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Cambodia 2010

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
					WOMEN				
15-19	89.1	10.0	0.2	0.5	0.1	0.1	100.0	10.2	3,734
20-24	43.1	52.8	0.5	3.1	0.2	0.3	100.0	53.2	3,155
25-29	16.4	78.1	0.7	3.5	0.4	0.9	100.0	78.9	3,262
30-34	8.6	83.0	0.6	5.3	0.4	2.1	100.0	83.6	2,167
35-39	6.4	84.8	0.7	4.5	0.3	3.3	100.0	85.5	2,044
40-44	5.1	80.0	0.9	6.2	0.2	7.6	100.0	80.9	2,300
45-49	6.1	74.4	0.8	6.9	0.5	11.3	100.0	75.2	2,093
Total	30.8	61.4	0.6	3.9	0.3	3.0	100.0	62.0	18,754
					MEN				
15-19	97.9	1.4	0.2	0.1	0.3	0.0	100.0	1.6	1,863
20-24	66.8	29.5	0.7	1.2	1.6	0.2	100.0	30.2	1,402
25-29	23.2	72.4	0.6	1.8	1.7	0.3	100.0	72.9	1,377
30-34	6.5	90.5	0.4	1.4	0.2	0.9	100.0	90.9	1,014
35-39	1.9	93.9	0.6	0.6	1.9	1.0	100.0	94.6	835
40-44	1.8	95.8	0.2	0.7	0.4	1.2	100.0	96.0	956
45-49	0.2	96.0	0.5	1.1	0.0	2.2	100.0	96.5	792
Total	38.6	58.4	0.4	0.9	0.9	0.7	100.0	58.9	8,239

Table 8.1 also shows that the proportion of women who have never married decreases with age to a low of 5 percent among those age 40-44. This reflects the near universality of marriage in Cambodian society. Consequently, the proportion of women currently married or cohabiting as if married increases with age up to age 35-39 (86 percent) and declines thereafter due to increasing levels of widowhood. Widowhood also increases with age among men, but not to the same extent as among women. Only 2 percent of men age 45-49 are widowed, as compared with 11 percent of women. This is likely due to men's greater propensity to remarry after having been widowed.

8.2 AGE AT FIRST MARRIAGE

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

Table 8.2 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Cambodia 2010

	Percentage first married by exact age					Percentage never		Median age at first
Current age	15	18	20	22	25	married	Number	marriage
				WOMEN				
15-19	0.9	na	na	na	na	89.1	3,734	a
20-24	2.1	18.4	37.3	na	na	43.1	3,155	a
25-29	1.8	21.2	41.4	58.2	76.8	16.4	3,262	21.0
30-34	4.8	27.1	48.1	66.5	79.8	8.6	2,167	20.2
35-39	3.6	29.1	52.7	69.1	81.9	6.4	2,044	19.8
40-44	3.8	22.4	44.5	63.4	80.7	5.1	2,300	20.5
45-49	2.2	28.3	51.1	65.6	78.4	6.1	2,093	19.9
20-49	2.9	23.7	44.9	na	na	16.3	15,020	a
25-49	3.1	25.1	46.9	63.9	79.3	9.2	11,865	20.3
				MEN				
15-19	0.0	na	na	na	na	97.9	1,863	a
20-24	0.0	3.4	12.2	na	na	66.8	1,402	a
25-29	0.0	5.4	16.6	36.6	61.2	23.2	1,377	23.4
30-34	0.0	7.3	21.2	44.4	70.7	6.5	1,014	22.6
35-39	0.0	10.6	27.4	43.6	69.1	1.9	835	22.6
40-44	0.0	10.5	28.0	49.0	71.7	1.8	956	22.1
45-49	0.0	10.7	33.0	52.2	74.5	0.2	792	21.7
20-49	0.0	7.4	21.5	na	na	21.3	6,376	a
25-49	0.0	8.5	24.2	44.2	68.6	8.4	4,974	22.6

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

The median age at first marriage among women in Cambodia has remained stable over the past two decades, at approximately 20 years of age. Men have a slightly older median age at first marriage of about 23 years. The proportion of women married by the age of 15 years has declined in recent years, dropping from 5 percent among women age 30-34 to 1 percent among women age 15-19. Slightly fewer than half of Cambodian women age 25-49 are married by age 20 (47 percent), and 79 percent are married by age 25. Less than 1 percent of all Cambodian men age 25-49 are married by the age of 15, and only 9 percent are married by age 18. This finding contrasts fairly sharply with the proportion of women married by age 18 (25 percent).

Table 8.3.1 shows the median age at first marriage among women age 25-49 by current age and selected background characteristics. Table 8.3.2 shows the median age at first marriage among men age 25-49. The median age at first marriage among urban women (21.9) is older than that among rural women (20.0). Men demonstrate greater urban-rural differences in median age at marriage than do women. Less than half of urban men are married by age 25, whereas half of rural men are married by age 22. Median age at first marriage for women varies by almost four years across provinces, ranging from 19.3 in Mondol Kiri/Rattanak Kiri to 23.0 in Phnom Penh. One consistent pattern of difference in age at first marriage among Cambodian women of all ages is with regard to education. Women who have attained a high school education or higher marry on average nearly two years later than their less educated countrywomen. Men with a high school education or higher marry on average 2.4 years later than their less educated counterparts. Among women, there is little difference in median age at marriage in the lowest four wealth quintiles; however, women in the highest wealth quintile marry on average 1.5 or more years later than their less wealthy counterparts. Among men, the median age at first marriage increases incrementally with each wealth quintile.

Table 8.3.1 Median age at first marriage: Women

Median age at first marriage among women by five-year age groups, age 25-49, according to background characteristics, Cambodia 2010

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	23.5	21.5	20.7	21.7	21.6	21.9
Rural	20.4	19.9	19.6	20.3	19.6	20.0
Province						
Banteay Mean Chey	20.0	19.6	18.9	20.7	19.5	19.7
Kampong Cham	20.1	20.3	19.8	19.9	19.1	19.8
Kampong Chhnang	20.7	19.9	20.0	21.5	19.9	20.5
Kampong Speu	20.7	19.4	18.6	19.8	18.9	19.5
Kampong Thom	21.2	20.1	19.1	20.3	20.2	20.3
Kandal	20.9	20.5	20.1	21.2	20.4	20.6
Kratie	20.8	20.3	20.5	20.2	19.2	20.3
Phnom Penh	24.1	21.6	21.1	23.2	22.5	23.0
Prey Veng	19.6	19.7	19.6	20.0	19.0	19.5
Pursat	21.1	20.3	21.3	19.7	20.7	20.6
Siem Reap	22.1	20.6	21.4	20.7	19.8	20.9
Svay Rieng	19.5	20.1	18.8	19.8	19.5	19.5
Takeo	21.4	19.4	19.3	19.9	19.3	19.8
Otdar Mean Chey	20.4	19.6	20.1	19.9	20.8	20.2
Battambang/Pailin	21.8	20.7	19.4	20.5	21.0	20.7
Kampot/Kep	20.3	19.6	19.4	20.3	19.7	19.9
Preah Sihanouk/Koh Kong	20.9	21.0	19.9	20.3	21.3	20.6
Preah Vihear/Steung Treng	20.0	20.2	19.7	21.0	19.5	20.1
Mondol Kiri/Rattanak Kiri	19.7	18.8	19.1	19.8	18.9	19.3
Education						
No schooling	19.6	20.2	19.9	19.6	19.5	19.7
Primary	20.5	20.0	19.6	20.4	19.8	20.1
Secondary and higher	23.0	20.9	20.1	21.8	22.6	21.7
Wealth quintile						
Lowest	19.9	20.3	20.1	20.6	19.9	20.2
Second	20.0	19.6	20.0	19.9	20.0	19.9
Middle	20.7	19.7	19.4	20.3	18.9	19.9
Fourth	21.0	20.1	19.3	19.9	19.6	20.0
Highest	23.3	21.5	20.2	21.7	21.4	21.7
Total	21.0	20.2	19.8	20.5	19.9	20.3

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

Table 8.3.2 Median age at first marriage: Men

Median age at first marriage among men by five-year age groups, age 25-49, according to background characteristics, Cambodia 2010

Background characteristic	Age					Men age
	25-29	30-34	35-39	40-44	45-49	25-49
Residence						
Urban	a	25.6	26.8	24.7	24.8	a
Rural	22.8	22.1	22.2	21.6	21.1	22.1
Province						
Banteay Mean Chey	22.6	22.0	(22.8)	(23.3)	(21.4)	22.5
Kampong Cham	22.8	(21.9)	(22.6)	(20.9)	(21.5)	22.2
Kampong Chhnang	22.9	22.6	21.6	21.5	(20.6)	21.8
Kampong Speu	22.6	22.1	(20.2)	(22.5)	(21.2)	22.0
Kampong Thom	22.6	22.0	(21.6)	(22.0)	(20.3)	22.0
Kandal	23.7	(22.7)	(22.6)	21.3	(22.4)	22.7
Kratie	23.6	23.6	(21.9)	22.0	(22.4)	22.7
Phnom Penh	a	26.4	27.5	25.4	(26.5)	a
Prey Veng	22.9	21.1	(21.0)	(19.7)	20.2	21.1
Pursat	23.4	23.0	(24.7)	(22.9)	(24.4)	23.6
Siem Reap	24.5	22.5	(24.9)	(23.6)	(21.3)	23.4
Svay Rieng	22.3	(20.6)	(20.1)	20.5	(21.5)	21.2
Takeo	22.9	(21.3)	(21.7)	(21.6)	(19.7)	21.7
Otdar Mean Chey	21.8	(22.4)	(24.1)	23.2	(22.3)	22.4
Battambang/Pailin	(22.9)	(23.9)	(23.6)	(22.2)	(23.6)	23.1
Kampot/Kep	22.0	(22.5)	(21.7)	(22.1)	(20.9)	22.0
Preah Sihanouk/Koh Kong	a	23.9	25.1	(22.0)	23.0	23.7
Preah Vihear/Steung Treng	23.8	21.9	22.7	22.7	(23.8)	23.0
Mondol Kiri/Rattanak Kiri	23.2	24.0	(22.2)	21.7	20.6	22.3
Education						
No schooling	22.3	20.9	22.5	21.3	20.7	21.6
Primary	22.2	21.9	21.9	20.8	20.7	21.6
Secondary and higher	a	23.8	23.5	23.4	24.1	24.0
Wealth quintile						
Lowest	21.5	21.2	22.4	21.4	21.4	21.5
Second	22.3	21.6	21.1	21.6	21.2	21.7
Middle	23.2	22.3	22.1	21.6	20.5	22.2
Fourth	23.6	22.9	22.9	21.6	20.7	22.4
Highest	a	25.4	26.3	24.2	24.8	a
Total	23.4	22.6	22.6	22.1	21.7	22.6

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner. Figures in parentheses are based on 25-49 unweighted cases.
a = Omitted because less than 50 percent of the men married for the first time before reaching the beginning of the age group

8.3 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is commonly used as a proxy for the onset of women's exposure to sexual intercourse and risk of pregnancy and sexually transmitted infections. However, because some men and women are sexually active before marriage, it is also important to measure the impact of age at first sexual intercourse on fertility. The 2010 Cambodia Demographic and Health Survey (CDHS) asked women and men how old they were when they first engaged in sexual intercourse. The results are presented in Tables 8.4, 8.5.1, and 8.5.2.

A comparison of the percentage of women who had first sexual intercourse by exact ages 15-25 (Table 8.4) with the percentage of women first married by exact ages 15-25 (Table 8.2) shows very little variation, indicating that women rarely engage in sexual activity prior to marriage. The median age at first intercourse is slightly older than the median age at first marriage among women age 25-49 (20.8 years versus 20.3 years). Only 21 percent of women have had sex by the age of 18, with 25 percent being married by age 18. Nine percent of women age 25-49 have never had intercourse.

Table 8.4 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, Cambodia 2010

Current age	Percentage who had first sexual intercourse by exact age					Percentage who never had intercourse	Number	Median age at first intercourse
	15	18	20	22	25			
				WOMEN				
15-19	0.4	na	na	na	na	89.0	3,734	a
20-24	0.8	14.5	32.8	na	na	43.1	3,155	a
25-29	0.8	16.7	36.5	54.2	73.2	16.4	3,262	21.5
30-34	2.3	23.5	44.3	62.6	76.0	8.6	2,167	20.5
35-39	2.0	23.3	48.9	64.9	77.3	6.3	2,044	20.1
40-44	1.7	17.8	41.0	59.6	75.7	5.0	2,300	20.8
45-49	0.8	23.7	46.5	62.4	75.6	6.1	2,093	20.4
15-24	0.6	na	na	na	na	68.0	6,889	a
20-49	1.3	19.2	40.6	na	na	16.3	15,020	a
25-49	1.5	20.5	42.7	60.1	75.3	9.2	11,865	20.8
				MEN				
15-19	0.1	na	na	na	na	95.1	1,863	a
20-24	0.1	3.8	19.4	na	na	54.0	1,402	a
25-29	0.0	6.4	20.9	44.7	72.6	12.5	1,377	22.5
30-34	0.2	8.6	26.5	50.8	74.2	3.2	1,014	21.9
35-39	0.1	11.2	27.9	48.4	72.0	0.6	835	22.2
40-44	0.0	9.6	29.1	51.9	73.1	0.8	956	21.8
45-49	0.0	10.0	31.9	52.8	74.1	0.2	792	21.7
15-24	0.1	na	na	na	na	77.5	3,265	a
20-49	0.1	7.7	25.0	na	na	15.3	6,376	a
25-49	0.1	8.8	26.5	49.2	73.2	4.4	4,974	22.1

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

A comparison of the percentage of men who had first sexual intercourse by exact ages 15-25 (Table 8.4) with the percentage of men first married by exact ages 15-25 (Table 8.2) again shows only small variations, indicating that men also do not typically engage in sexual activity prior to marriage. The percentage of men age 25-49 never having had intercourse is 4 percent, about half the proportion of men never having married (8 percent). Among men, the median age at first intercourse is slightly younger than the median age at first marriage (22.1 years versus 22.6 years).

Table 8.5.1 shows differentials in the median age at first sexual intercourse by background characteristics for women, and Table 8.5.2 shows these differentials for men. Among women (Table 8.5.1), there is a two-year difference in age at first sexual intercourse between urban and rural residents (22.5 and 20.4, respectively). There is little variation by region with the exception of a notably older median age at first intercourse among women in Phnom Penh (23.3 years). There is also a two-year difference between those who have a secondary education or higher (22.4 years) and those who have less education (20.1 to 20.5 years) and between those in the highest wealth quintile (22.3) and those in the lower four wealth quintiles (20.3 to 20.6 years). For men (Table 8.5.2), the same two-year difference in median age at first sexual intercourse exists between urban and rural residents (23.6 and 21.7 years, respectively). There is a difference of between one and two years among those who have a secondary education or higher (23.0 years) and those who have less education (21.3 to 21.5 years). Also, there is a difference of approximately two years between men in the wealthiest quintile (23.7 years) and men in the other quintiles (21.5 to 21.9 years).

Table 8.5.1 Median age at first intercourse: Women

Median age at first sexual intercourse among women by five-year age groups, age 25-49, according to background characteristics, Cambodia 2010

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	23.8	22.1	21.5	21.8	22.0	22.5
Rural	21.0	20.3	19.9	20.7	20.1	20.4
Province						
Banteay Mean Chey	20.9	19.7	19.2	21.4	20.0	20.3
Kampong Cham	20.7	20.6	20.3	20.0	20.2	20.4
Kampong Chhnang	21.0	20.5	20.6	22.1	20.6	21.0
Kampong Speu	20.9	19.8	19.3	20.6	19.3	19.9
Kampong Thom	21.8	20.6	19.7	20.4	20.3	20.7
Kandal	21.2	20.5	20.2	21.4	20.6	20.8
Kratie	21.9	20.9	20.7	21.2	20.7	21.2
Phnom Penh	24.4	22.3	21.7	22.7	22.8	23.3
Prey Veng	19.9	19.9	19.6	20.3	19.2	19.8
Pursat	21.6	20.8	21.3	20.3	20.8	21.1
Siem Reap	23.2	21.1	21.9	20.8	20.4	21.5
Svay Rieng	19.9	20.0	19.2	20.1	19.8	19.8
Takeo	21.8	19.6	19.6	20.6	19.7	20.4
Otdar Mean Chey	20.7	20.7	20.5	20.5	20.9	20.7
Battambang/Pailin	22.3	20.7	20.2	21.3	21.5	21.5
Kampot/Kep	21.2	20.7	20.0	20.8	21.1	20.8
Preah Sihanouk/Koh Kong	21.1	21.5	20.2	20.5	20.4	20.7
Preah Vihear/Steung Treng	20.4	20.2	20.4	20.7	20.0	20.4
Mondol Kiri/Rattanak Kiri	19.7	18.9	19.4	20.3	18.9	19.4
Education						
No schooling	20.0	20.6	20.2	19.9	20.1	20.1
Primary	21.1	20.3	19.9	20.7	20.1	20.5
Secondary and higher	23.5	21.5	20.7	22.3	23.3	22.4
Wealth quintile						
Lowest	20.6	20.6	20.3	20.9	20.4	20.6
Second	20.6	20.0	20.2	20.4	20.5	20.4
Middle	21.1	20.2	19.8	20.8	19.3	20.3
Fourth	21.8	20.3	19.7	20.4	20.1	20.4
Highest	23.7	22.2	20.8	22.0	21.7	22.3
Total	21.5	20.5	20.1	20.8	20.4	20.8

Table 8.5.2 Median age at first intercourse: Men

Median age at first sexual intercourse among men by five-year age groups, age 25-49, according to background characteristics, Cambodia 2010

Background characteristic	Age					Men age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	23.5	23.3	23.6	23.9	24.0	23.6
Rural	22.3	21.6	21.8	21.5	21.1	21.7
Province						
Banteay Mean Chey	21.9	20.6	(22.4)	(21.0)	(21.7)	21.7
Kampong Cham	22.9	(21.8)	(22.9)	(21.6)	(21.8)	22.3
Kampong Chhnang	22.8	22.6	22.0	21.5	(20.6)	22.0
Kampong Speu	22.4	22.0	(20.7)	(23.2)	(21.2)	21.9
Kampong Thom	22.4	21.7	(20.7)	(21.8)	(20.5)	21.6
Kandal	22.1	(21.9)	(21.4)	20.5	(20.5)	21.3
Kratie	22.5	22.7	(20.4)	21.4	(22.2)	22.1
Phnom Penh	23.6	24.3	23.7	24.9	(25.0)	24.1
Prey Veng	22.2	20.8	(20.7)	(19.6)	20.4	20.9
Pursat	23.6	22.7	(24.6)	(25.5)	(24.6)	23.9
Siem Reap	22.2	21.9	(23.4)	(23.0)	(21.5)	22.3
Svay Rieng	21.9	(20.5)	(21.2)	20.2	(21.5)	21.1
Takeo	(21.9)	(21.1)	(21.0)	(21.8)	(19.9)	21.4
Otdar Mean Chey	21.4	(22.6)	(22.9)	22.9	(22.7)	22.3
Battambang/Pailin	22.9	(23.1)	(22.3)	(21.8)	(23.8)	22.7
Kampot/Kep	21.4	(20.6)	(21.0)	(20.7)	(20.8)	21.0
Preah Sihanouk/Koh Kong	23.0	23.5	25.0	(23.8)	23.2	23.4
Preah Vihear/Steung Treng	23.8	22.1	23.4	23.0	(24.3)	23.3
Mondol Kiri/Rattanak Kiri	21.5	23.1	(22.2)	21.7	20.8	21.8
Education						
No schooling	21.8	20.9	22.1	21.7	21.0	21.5
Primary	21.8	21.5	21.5	20.7	20.8	21.3
Secondary and higher	23.3	22.5	22.6	23.1	23.7	23.0
Wealth quintile						
Lowest	21.4	21.0	22.2	21.7	21.6	21.5
Second	22.0	21.4	21.0	21.5	21.3	21.6
Middle	22.8	21.7	22.0	21.2	20.6	21.8
Fourth	22.6	22.6	21.8	21.4	20.9	21.9
Highest	23.8	23.2	23.7	23.4	24.4	23.7
Total	22.5	21.9	22.2	21.8	21.7	22.1

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

8.4 RECENT SEXUAL ACTIVITY

In addition to age at first sexual intercourse, in the absence of effective contraception, exposure to pregnancy depends on the pattern of sexual activity. The most important factors are frequency of intercourse, postpartum abstinence, and abstinence for reasons other than being postpartum. Information on recent sexual activity, therefore, can be used to refine measures of exposure to pregnancy. Table 8.6.1 shows patterns of sexual activity among women in the four weeks preceding the survey by background characteristics, and Table 8.6.2 shows patterns among men.

Table 8.6.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Cambodia 2010

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of women
	Within the last 4 weeks	Within 1 year[1]	One or more years	Missing			
Age							
15-19	7.9	2.6	0.4	0.0	89.0	100.0	3,734
20-24	42.6	11.1	3.2	0.0	43.1	100.0	3,155
25-29	64.9	13.7	5.0	0.0	16.4	100.0	3,262
30-34	71.7	12.6	6.9	0.2	8.6	100.0	2,167
35-39	73.9	11.3	8.2	0.3	6.3	100.0	2,044
40-44	66.5	13.7	14.8	0.0	5.0	100.0	2,300
45-49	57.9	15.2	20.8	0.1	6.1	100.0	2,093
Marital status							
Never married	0.0	0.1	0.1	0.0	99.8	100.0	5,783
Married or living together	82.1	16.1	1.8	0.1	0.0	100.0	11,626
Divorced/separated/widowed	1.2	12.0	86.4	0.3	0.2	100.0	1,345
Marital duration[2]							
Married only once	82.2	15.9	1.7	0.1	0.0	100.0	10,838
0-4 years	79.1	19.3	1.6	0.0	0.1	100.0	2,443
5-9 years	83.6	14.7	1.5	0.2	0.0	100.0	2,135
10-14 years	86.7	12.1	1.1	0.1	0.0	100.0	1,757
15-19 years	85.4	13.2	1.2	0.1	0.0	100.0	1,611
20-24 years	82.3	15.5	2.1	0.0	0.0	100.0	1,605
25+ years	75.7	20.8	3.5	0.0	0.0	100.0	1,287
Married more than once	80.2	17.6	1.9	0.2	0.0	100.0	788
Residence							
Urban	44.5	7.9	7.2	0.0	40.4	100.0	3,936
Rural	52.7	11.6	7.3	0.1	28.2	100.0	14,818
Province							
Banteay Mean Chey	50.5	12.1	8.0	0.0	29.4	100.0	719
Kampong Cham	51.8	15.5	8.2	0.2	24.3	100.0	2,111
Kampong Chhnang	54.8	6.7	5.6	0.0	32.9	100.0	739
Kampong Speu	56.9	9.2	7.0	0.1	26.9	100.0	1,060
Kampong Thom	52.1	8.9	7.3	0.0	31.7	100.0	935
Kandal	46.5	11.4	7.4	0.1	34.6	100.0	1,920
Kratie	54.3	11.3	6.1	0.0	28.2	100.0	438
Phnom Penh	43.0	6.6	6.9	0.0	43.4	100.0	2,183
Prey Veng	58.8	11.9	8.6	0.0	20.6	100.0	1,341
Pursat	55.0	6.8	5.8	0.0	32.5	100.0	534
Siem Reap	48.6	11.5	7.7	0.1	32.0	100.0	1,233
Svay Rieng	54.4	12.9	7.8	0.0	24.9	100.0	753
Takeo	53.9	11.7	7.6	0.2	26.6	100.0	1,175
Otdar Mean Chey	55.2	5.8	3.8	0.0	35.2	100.0	252
Battambang/Pailin	47.5	11.5	6.8	0.0	34.3	100.0	1,320
Kampot/Kep	50.9	12.5	8.1	0.0	28.5	100.0	891
Preah Sihanouk/Koh Kong	50.8	9.6	7.4	0.0	32.2	100.0	439
Preah Vihear/Steung Treng	49.5	10.7	6.7	0.0	33.1	100.0	430
Mondol Kiri/Rattanak Kiri	57.4	12.4	6.3	0.3	23.6	100.0	281
Education							
No schooling	60.1	14.6	12.3	0.2	12.9	100.0	2,973
Primary	57.4	12.2	8.4	0.1	21.9	100.0	9,265
Secondary and higher	37.8	7.1	3.5	0.0	51.6	100.0	6,516
Wealth quintile							
Lowest	54.4	13.5	9.9	0.1	22.2	100.0	3,388
Second	54.9	11.7	7.4	0.1	26.0	100.0	3,516
Middle	53.2	10.5	6.9	0.1	29.3	100.0	3,594
Fourth	49.6	10.8	6.2	0.0	33.4	100.0	3,827
Highest	44.8	8.5	6.5	0.1	40.2	100.0	4,428
Total	51.0	10.8	7.3	0.1	30.8	100.0	18,754

[1] Excludes women who had sexual intercourse within the last 4 weeks
[2] Excludes women who are not currently married

Table 8.6.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Cambodia 2010

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of men
	Within the last 4 weeks	Within 1 year[1]	One or more years	Missing			
Age							
15-19	1.6	2.1	1.1	0.0	95.1	100.0	1,863
20-24	26.1	13.5	6.5	0.0	54.0	100.0	1,402
25-29	62.4	17.6	7.3	0.2	12.5	100.0	1,377
30-34	81.5	11.3	3.8	0.3	3.2	100.0	1,014
35-39	84.4	11.5	3.5	0.0	0.6	100.0	835
40-44	78.7	14.9	5.5	0.0	0.8	100.0	956
45-49	76.5	16.7	6.2	0.4	0.2	100.0	792
Marital status							
Never married	1.7	5.7	6.2	0.1	86.3	100.0	3,181
Married or living together	84.1	14.2	1.4	0.2	0.1	100.0	4,852
Divorced/separated/widowed	3.9	39.1	57.0	0.0	0.0	100.0	206
Marital duration[2]							
Married only once	84.0	14.4	1.4	0.2	0.1	100.0	4,663
0-4 years	80.6	18.4	0.7	0.0	0.3	100.0	1,067
5-9 years	87.1	12.0	0.5	0.3	0.0	100.0	930
10-14 years	89.4	9.8	0.6	0.2	0.0	100.0	800
15-19 years	84.7	12.9	2.3	0.0	0.0	100.0	712
20-24 years	83.0	15.1	1.8	0.0	0.0	100.0	675
25+ years	76.8	18.7	3.8	0.7	0.0	100.0	480
Married more than once	86.9	10.9	2.3	0.0	0.0	100.0	189
Residence							
Urban	45.0	13.0	7.0	0.2	34.8	100.0	1,697
Rural	51.7	11.2	4.0	0.1	33.0	100.0	6,542
Province							
Banteay Mean Chey	56.2	10.9	3.9	0.3	28.7	100.0	275
Kampong Cham	52.8	14.0	3.9	0.0	29.3	100.0	990
Kampong Chhnang	53.6	5.5	3.1	0.0	37.9	100.0	341
Kampong Speu	46.7	14.5	2.7	0.0	36.2	100.0	468
Kampong Thom	49.3	10.1	5.1	0.1	35.4	100.0	390
Kandal	49.1	10.9	6.6	0.4	33.0	100.0	796
Kratie	55.4	13.6	3.2	0.1	27.7	100.0	191
Phnom Penh	45.2	12.9	7.0	0.3	34.6	100.0	945
Prey Veng	61.1	12.0	3.1	0.0	23.9	100.0	598
Pursat	51.5	9.4	3.3	0.0	35.8	100.0	256
Siem Reap	49.7	15.1	6.2	0.3	28.7	100.0	517
Svay Rieng	54.6	11.9	2.7	0.2	30.5	100.0	331
Takeo	47.1	12.1	4.4	0.0	36.5	100.0	525
Otdar Mean Chey	54.0	4.3	3.7	0.0	38.0	100.0	122
Battambang/Pailin	42.4	10.1	4.1	0.0	43.5	100.0	603
Kampot/Kep	45.9	12.3	7.7	0.0	34.0	100.0	362
Preah Sihanouk/Koh Kong	49.6	8.5	5.8	0.1	36.0	100.0	203
Preah Vihear/Steung Treng	51.5	4.6	1.3	0.0	42.5	100.0	193
Mondol Kiri/Rattanak Kiri	60.4	8.9	2.2	0.2	28.4	100.0	132
Education							
No schooling	67.3	13.6	4.8	0.3	14.0	100.0	641
Primary	57.7	12.1	4.2	0.0	26.0	100.0	3,394
Secondary and higher	41.7	10.9	5.0	0.2	42.2	100.0	4,205
Wealth quintile							
Lowest	56.2	12.1	2.4	0.1	29.2	100.0	1,454
Second	52.4	11.3	5.0	0.1	31.2	100.0	1,544
Middle	50.4	9.8	5.1	0.1	34.7	100.0	1,637
Fourth	48.1	11.7	4.1	0.2	35.9	100.0	1,696
Highest	45.9	12.9	6.2	0.2	34.8	100.0	1,908
Total	50.3	11.6	4.6	0.1	33.3	100.0	8,239

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

Approximately half (51 percent) of all women had been sexually active during the four weeks preceding the survey; 11 percent had not had sex within the past four weeks but had done so within the past year; and 7 percent had not had sex in one year or longer. The remaining 31 percent had never had sexual intercourse. The proportion of women who were sexually active in the four weeks prior to the survey increased with age up to age 35-39 and declined thereafter. With respect to marital

duration, the proportion sexually active in the past four weeks peaked at a duration of 10-14 years and declined thereafter. A higher proportion of rural women (53 percent) than urban women (45 percent) were sexually active.

The proportion of men who reported being sexually active in the past four weeks (50 percent) was similar to that of women. Twelve percent of men had not had sex within the past four weeks but had done so within the past year, and 5 percent had not had sex in one year or longer. Approximately the same proportion of men as women had never had sex: 33 percent. The proportion of men who were sexually active in the four weeks prior to the survey increased with age up to age 35-39, with 84 percent of men in that age group reporting sex in the past four weeks. The proportion of men who were sexually active in the four weeks prior to the survey peaked at a marital duration of 10-14 years and declined thereafter. Rural men were more likely to have had sexual intercourse in the four weeks preceding the survey (52 percent) than urban men (45 percent). In terms of education, the proportion recently sexually active fell from 67 percent among men with no education to 42 percent among men with a secondary education or higher. The proportion of men who were sexually active in the four weeks preceding the survey also decreased with wealth quintile. Both education and wealth were related to the percentage of men who had never had sexual intercourse, with this percentage rising steadily with increasing education and wealth quintile. Recent sexual activity among men ranged from a low of 42 percent in Battambang/Pailin to a high of 61 percent in Prey Veng.

8.5 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

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

Table 8.7 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Cambodia 2010

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible[1]	
<2	96.9	92.6	98.9	195
2-3	86.0	62.8	90.1	262
4-5	68.6	21.0	69.7	265
6-7	57.5	11.7	62.9	268
8-9	52.3	9.1	56.2	303
10-11	35.1	6.7	38.4	273
12-13	26.1	3.9	27.3	346
14-15	17.9	2.4	18.8	242
16-17	8.0	3.6	11.0	270
18-19	5.1	6.3	10.2	271
20-21	6.5	1.0	6.9	269
22-23	3.7	3.0	6.5	286
24-25	2.3	0.7	2.6	278
26-27	2.5	1.1	3.6	266
28-29	1.6	2.3	3.9	267
30-31	2.3	3.3	4.9	281
32-33	1.0	0.7	1.7	306
34-35	1.8	0.8	2.6	277
Total	25.1	11.4	27.3	4,924
Median	8.2	3.0	8.9	na
Mean	9.8	4.9	10.6	na

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

In Cambodia, the typical duration of postpartum amenorrhea is considerably longer than the typical duration of postpartum abstinence and is the major determinant of postpartum insusceptibility to pregnancy. Cambodian women are insusceptible for a median period of 8.9 months and amenorrheic for a median period of 8.2 months, and they abstain after childbirth for a median duration of 3.0 months. Overall, one-quarter of mothers who gave birth in the three years preceding the survey are postpartum amenorrheic, including 97 percent within 2 months of birth and 52 percent at 8-9 months postpartum. Ninety-three percent of mothers are still abstaining within two months of their births; by 6-7 months postpartum, 12 percent of new mothers are abstaining. Seventy percent of mothers with recent births remain insusceptible to pregnancy through their fifth month postpartum.

Table 8.8 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility to pregnancy according to background characteristics. Urban women abstain from sexual relations for half a month longer than do rural women (3.4 months and 2.9 months, respectively). However, urban women experience shorter postpartum amenorrhea than women living in rural areas (6.0 and 8.5 months, respectively). Women in the highest educational and wealth categories have the shortest periods of postpartum insusceptibility.

Table 8.8 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Cambodia 2010

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	8.1	2.9	9.0
30-49	8.4	3.2	8.7
Residence			
Urban	6.0	3.4	6.1
Rural	8.5	2.9	9.3
Province			
Banteay Mean Chey	(8.8)	(3.1)	(9.6)
Kampong Cham	(10.1)	(4.3)	(10.3)
Kampong Chhnang	8.3	*	8.3
Kampong Speu	(8.8)	(2.8)	(9.0)
Kampong Thom	(8.1)	*	(8.4)
Kandal	(5.8)	(2.3)	(10.2)
Kratie	9.6	(4.2)	(11.0)
Phnom Penh	(6.1)	(4.2)	(6.3)
Prey Veng	8.0	(3.2)	8.0
Pursat	(9.4)	(1.4)	(9.8)
Siem Reap	(8.8)	(4.0)	(9.8)
Svay Rieng	(7.9)	(2.5)	(8.4)
Takeo	(7.8)	(3.6)	(8.1)
Otdar Mean Chey	(5.6)	*	(5.7)
Battambang/Pailin	(8.5)	(3.0)	(9.1)
Kampot/Kep	(12.2)	*	(13.4)
Preah Sihanouk/Koh Kong	(5.8)	(3.5)	(6.1)
Preah Vihear/Steung Treng	6.9	(2.5)	6.9
Mondol Kiri/Rattanak Kiri	9.6	2.5	9.8
Education			
No schooling	10.8	2.4	11.0
Primary	8.8	3.1	9.4
Secondary and higher	5.9	3.1	6.2
Wealth quintile			
Lowest	10.8	2.5	10.9
Second	7.8	2.7	8.7
Middle	8.4	3.1	8.7
Fourth	8.5	3.2	9.3
Highest	5.3	3.3	5.4
Total	8.2	3.0	8.9

Note: Medians are based on the status at the time of the survey (current status). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

8.6 TERMINATION OF EXPOSURE TO PREGNANCY

The risk of childbearing declines as age increases. The term infecundity denotes a process rather than a well-defined event. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. Table 8.9 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 and over.

A woman is considered menopausal if she is not pregnant, is not postpartum amenorrheic, and did not have a menstrual period for at least six months before the survey. Twelve percent of Cambodian women age 30-49 are menopausal. As expected, the proportion of women who have reached menopause increases with age, particularly after age 45. It rises from 12 percent among women age 44-45 to 37 percent among women at the end of their reproductive years (age 48-49).

Table 8.9 Menopause

Percentage of women age 30-49 who are menopausal, by age, Cambodia 2010

Age	Percentage menopausal[1]	Number of women
30-34	5.7	2,167
35-39	7.2	2,044
40-41	9.0	980
42-43	8.1	875
44-45	11.6	885
46-47	18.8	862
48-49	37.3	791
Total	11.5	8,604

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

FERTILITY PREFERENCES 9

The 2010 Cambodia Demographic and Health Survey (CDHS) collected information on fertility preferences to measure the overall attitudes of women toward childbearing and the general course of future fertility. Data on fertility preferences are also useful for assessing unmet need for family planning and the number of unwanted or mistimed births in the population. These data, together with information on contraceptive prevalence, provide an estimation of the demand for family planning.

9.1 DESIRE FOR MORE CHILDREN

Currently married women and men in Cambodia were asked whether they wanted to have a child (or another child) and, if so, how soon. Table 9.1 presents fertility preferences among currently married women and men age 15-49 by number of living children. Thirty-eight percent of currently married women state that they want to have another child; this is a slight increase from the 2005 CDHS, in which 35 percent of women stated that they wanted to have another child. Ten percent of women want to have a child within two years, 25 percent prefer to wait for two years or more to have another child, and 2 percent want another child but are undecided as to when they want to have that child. The majority of married women want no more children; 56 percent want no more or have been sterilized. This is similar to the percentage wanting no more children in the 2005 CDHS. Three percent of married women are undecided about whether they want more children. The information presented in Table 9.1 indicates that, among women who would like to have another child, many prefer to space their pregnancies and are potentially in need of family planning for that purpose, as are the large proportions of women who express the desire to limit their births.

Table 9.1 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, Cambodia 2010

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
WOMEN								
Have another soon[2]	76.0	16.8	8.2	4.0	3.5	1.1	0.6	10.4
Have another later[3]	11.5	64.6	30.5	11.5	3.4	0.8	0.3	25.2
Have another, undecided when	2.6	3.3	3.9	1.8	0.4	0.1	0.2	2.3
Undecided	1.9	2.6	4.4	3.5	2.3	0.8	1.1	2.9
Want no more	2.8	10.8	49.2	73.4	80.6	90.2	88.2	53.8
Sterilized[4]	0.4	0.7	1.4	3.1	6.3	3.4	3.0	2.4
Declared infecund	4.8	1.3	2.3	2.7	3.4	3.5	6.6	2.8
Missing	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	508	2,462	3,122	2,312	1,468	858	897	11,626
MEN								
Have another soon[2]	62.6	15.1	7.7	4.0	2.5	1.7	1.3	9.5
Have another later[3]	23.1	70.8	41.7	22.4	7.2	5.2	2.1	33.0
Have another, undecided when	3.2	2.5	2.7	2.0	0.5	0.7	0.3	1.9
Undecided	1.4	1.0	2.5	1.4	1.1	1.0	0.7	1.5
Want no more	7.9	9.4	43.8	68.6	86.4	89.8	93.6	52.3
Sterilized[4]	0.0	0.0	0.2	0.3	0.4	0.3	0.0	0.2
Declared infecund	1.6	1.2	1.3	1.4	1.4	1.2	1.6	1.3
Missing	0.3	0.1	0.1	0.0	0.5	0.1	0.5	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	229	1,017	1,293	992	610	366	344	4,852

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

Fertility preferences among men are similar to those of women. Forty-four percent of currently married men want to have another child, 53 percent do not want to have another child (or have been sterilized), and 2 percent are undecided. Most men who want to have a child want to wait two or more years (33 percent of all currently married men).

Tables 9.2.1 and 9.2.2 display the percentage of currently married women and men age 15-49 who want no more children by number of living children and background characteristics. The proportion of currently married women who want no more children is relatively large (56 percent). Desire to limit childbearing increases with increasing number of living children, from 3 percent among married women with no living children to 91 percent among women with six or more living children. There are particularly notable increases in the proportion of women wanting no more children between parities one and two (a difference of 39 percentage points) and parities two and three (a difference of 26 percentage points). The large proportion of women indicating a desire to have no more children at parities two and three is consistent with an ideal family size of two to three children.

Table 9.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Cambodia 2010

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	5.2	10.1	58.0	77.8	87.5	93.7	90.0	52.8
Rural	2.4	11.8	48.7	76.2	86.8	93.6	91.3	57.1
Province								
Banteay Mean Chey	*	12.7	50.8	72.1	85.6	91.6	(83.1)	55.3
Kampong Cham	(5.1)	9.1	39.6	71.1	83.8	(95.0)	(78.5)	53.4
Kampong Chhnang	(0.0)	4.7	44.8	61.7	88.7	91.4	97.1	57.0
Kampong Speu	(5.2)	9.5	42.7	81.7	90.3	(98.6)	(90.2)	56.3
Kampong Thom	(4.1)	10.2	40.3	66.3	80.1	(82.6)	88.2	51.6
Kandal	*	11.2	47.1	75.1	86.4	(100.0)	(93.3)	57.5
Kratie	*	9.1	49.8	73.5	87.7	(96.7)	87.8	59.1
Phnom Penh	(5.5)	12.2	63.0	79.5	89.0	*	*	52.6
Prey Veng	*	9.3	55.6	85.5	96.7	(100.0)	(100.0)	58.3
Pursat	*	5.3	55.8	70.5	90.4	(94.7)	(97.2)	57.5
Siem Reap	(0.0)	18.9	43.5	78.9	82.6	94.5	(96.3)	56.8
Svay Rieng	(0.0)	17.6	72.1	88.4	93.6	(94.1)	(100.0)	66.4
Takeo	*	15.5	56.2	81.1	92.9	(97.5)	(97.4)	61.9
Otdar Mean Chey	(0.0)	5.4	43.1	77.5	86.1	(86.3)	96.8	54.4
Battambang/Pailin	*	10.4	43.5	73.2	69.4	(82.1)	(85.9)	50.9
Kampot/Kep	*	13.0	62.3	85.6	90.3	(97.6)	(99.1)	62.5
Preah Sihanouk/Koh Kong	(2.3)	7.9	45.1	76.5	89.2	(94.0)	(95.0)	54.1
Preah Vihear/Steung Treng	(0.0)	9.6	31.9	64.8	89.2	(75.5)	89.5	49.1
Mondol Kiri/Rattanak Kiri	(6.1)	20.2	50.1	72.7	71.1	88.2	86.6	57.2
Education								
No schooling	1.6	19.5	53.5	73.9	85.4	90.3	89.4	65.1
Primary	4.3	11.8	49.2	75.8	86.0	94.9	92.1	58.2
Secondary and higher	2.5	8.4	52.1	80.1	93.3	94.4	(92.8)	45.3
Wealth quintile								
Lowest	4.2	12.9	46.5	74.8	83.2	92.6	94.0	57.6
Second	0.4	10.7	49.2	78.2	90.3	93.9	87.7	59.0
Middle	0.3	10.4	49.1	74.7	84.7	95.1	88.8	55.3
Fourth	6.1	12.9	49.5	76.3	89.0	92.2	93.8	56.3
Highest	4.2	10.7	57.2	77.9	86.9	94.3	95.9	53.3
Total	3.2	11.5	50.7	76.5	86.9	93.6	91.2	56.3

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25-29 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] The number of living children includes the current pregnancy.

It is interesting to note that 65 percent of women with no education want no more children, as compared with 45 percent of women with a secondary education or higher. This may be related to the younger age and lower parity of women with higher levels of education. As number of living children increases, so does the percentage of women who want no more children. This is particularly true among women with higher levels of education. There is considerable variation across provinces;

Preah Vihear/Steung Treng has the smallest proportion of women wishing to curtail their fertility (49 percent), whereas Svay Rieng has the highest proportion (66 percent). Rural women are more likely than urban women to want no more children (57 percent and 53 percent, respectively), and women in the highest wealth quintile are less likely to want no more children (53 percent) than women in the lower four quintiles (55 percent or more).

As observed for women, the percentage of currently married men age 15-49 who want no more children increases with number of living children, and men in rural areas are more likely than men in urban areas to want no more children (55 percent and 41 percent, respectively). By province, the percentage of men who want no more children ranges from 32 percent in Phnom Penh to 62 percent in Takeo. The percentage of men who want no more children is inversely associated with level of education and is lower among men in the highest wealth quintile than among those in the lower four quintiles.

Table 9.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Cambodia 2010

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	5.3	8.3	42.6	64.2	79.8	78.1	77.3	40.7
Rural	9.0	9.7	44.3	69.6	88.0	91.6	95.0	55.0
Province								
Banteay Mean Chey	*	(15.1)	42.7	(69.5)	(83.8)	*	*	53.3
Kampong Cham	(9.8)	(13.0)	48.9	(62.8)	(94.1)	*	*	57.7
Kampong Chhnang	(0.0)	(8.6)	40.9	70.5	(89.4)	(91.2)	(100.0)	59.4
Kampong Speu	*	2.6	45.2	(83.1)	(92.3)	*	*	55.5
Kampong Thom	*	(6.3)	26.2	62.4	*	*	*	47.0
Kandal	*	(5.5)	36.7	(69.6)	(78.3)	*	*	52.5
Kratie	(13.7)	6.7	52.3	(61.2)	(93.4)	*	(96.0)	57.5
Phnom Penh	(7.8)	5.2	38.2	57.3	*	*	*	32.0
Prey Veng	*	7.4	50.6	(84.3)	(87.2)	*	*	55.2
Pursat	*	13.5	56.5	(59.0)	(87.3)	*	*	53.7
Siem Reap	(9.4)	22.5	46.0	72.9	(97.1)	*	*	58.9
Svay Rieng	(0.0)	8.5	57.3	66.7	*	*	*	54.6
Takeo	(23.5)	(13.2)	51.7	(76.5)	(94.4)	(100.0)	*	62.4
Otdar Mean Chey	(13.2)	0.0	35.9	(46.9)	(71.2)	*	*	39.0
Battambang/Pailin	*	(15.3)	43.6	(78.5)	*	(84.6)	*	56.8
Kampot/Kep	*	(0.0)	49.1	(72.0)	*	*	*	53.2
Preah Sihanouk/Koh Kong	(12.3)	6.2	31.8	62.8	(73.4)	*	*	42.5
Preah Vihear/Steung Treng	*	4.1	12.1	50.0	(73.2)	*	*	37.7
Mondol Kiri/Rattanak Kiri	(0.0)	19.4	42.7	(56.2)	(82.6)	(100.0)	(83.3)	51.0
Education								
No schooling	(12.8)	22.9	49.5	73.6	91.5	94.5	93.5	66.5
Primary	10.1	10.7	43.9	66.0	84.9	90.3	93.0	54.7
Secondary and higher	4.7	6.2	43.1	71.0	87.6	87.5	96.0	46.2
Wealth quintile								
Lowest	0.0	8.2	40.9	72.9	84.2	89.4	93.6	55.5
Second	0.9	11.8	47.7	66.3	87.2	96.0	95.7	55.9
Middle	11.4	11.5	45.2	70.7	88.2	93.4	95.3	55.4
Fourth	15.3	11.5	44.4	70.1	87.3	83.1	(89.2)	53.3
Highest	10.9	5.1	42.2	64.4	87.4	(86.5)	(89.1)	42.4
Total	7.9	9.4	44.0	68.8	86.8	90.2	93.6	52.5

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children. Figures in parentheses are based on 25-29 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

9.2 NEED FOR FAMILY PLANNING SERVICES

Women who are currently married and who say they either want no more children or want to wait at least two years before having another child, but are not using contraception, are considered to have an unmet need for family planning. Women who are currently using family planning methods

are said to have a met need for family planning. The sum of women with unmet need and met need constitutes the total demand for family planning.

Table 9.3 shows the demand for family planning services among currently married women age 15-49 by background characteristics. Total demand for family planning has increased slightly to 68 percent from 65 percent in the 2005 CDHS. However, the percentage of currently married women with a met need for family planning has increased from 40 percent in 2005 to 51 percent in 2010. This increase in the use of family planning has resulted in a decrease in unmet need from 25 percent in 2005 to 17 percent in 2010.

Table 9.3 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Cambodia 2010

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	13.9	1.3	15.3	25.5	1.6	27.1	39.9	3.5	43.4	64.9	382
20-24	12.8	3.5	16.3	35.4	7.8	43.2	49.3	11.4	60.6	73.2	1,679
25-29	9.5	6.0	15.4	33.0	20.6	53.6	43.7	26.9	70.6	78.2	2,572
30-34	5.9	9.1	15.0	23.1	38.8	61.9	29.4	48.0	77.5	80.7	1,811
35-39	2.5	13.4	15.8	7.1	57.5	64.5	9.6	71.1	80.7	80.4	1,747
40-44	1.4	17.2	18.6	3.4	48.7	52.2	4.8	66.2	71.1	73.8	1,861
45-49	0.4	18.8	19.2	1.0	27.5	28.4	1.3	46.3	47.7	59.7	1,574
Residence											
Urban	4.2	7.4	11.6	22.0	32.8	54.8	26.6	40.4	67.0	82.8	2,069
Rural	6.3	11.3	17.6	17.9	31.7	49.6	24.7	43.3	68.0	74.1	9,557
Province											
Banteay Mean Chey	4.4	11.1	15.5	19.8	31.6	51.4	24.4	42.7	67.1	76.9	454
Kampong Cham	5.7	10.8	16.5	20.2	31.6	51.8	27.3	42.7	70.0	76.4	1,411
Kampong Chhnang	6.2	15.4	21.6	14.9	24.9	39.7	21.6	40.3	61.9	65.1	450
Kampong Speu	5.3	10.1	15.4	21.5	31.9	53.3	27.0	41.9	68.9	77.7	698
Kampong Thom	5.2	11.0	16.2	22.9	29.1	52.0	28.2	40.3	68.5	76.4	569
Kandal	5.5	8.0	13.5	23.0	38.7	61.8	29.7	47.6	77.3	82.5	1,109
Kratie	7.3	14.5	21.8	13.0	26.6	39.6	20.5	41.1	61.6	64.6	287
Phnom Penh	3.4	6.2	9.6	22.9	33.5	56.4	26.7	40.0	66.6	85.6	1,099
Prey Veng	6.2	10.2	16.4	16.9	31.6	48.5	23.4	41.8	65.2	74.9	961
Pursat	7.6	13.8	21.4	12.5	28.1	40.6	20.4	41.9	62.2	65.6	328
Siem Reap	6.7	12.2	18.9	15.9	28.8	44.7	23.0	41.0	64.0	70.5	754
Svay Rieng	3.4	8.0	11.4	13.5	36.9	50.5	17.3	45.0	62.3	81.6	505
Takeo	8.9	18.0	26.9	13.6	33.6	47.2	22.5	51.7	74.2	63.8	778
Otdar Mean Chey	6.6	10.1	16.7	18.5	28.7	47.2	25.1	38.8	63.9	73.8	154
Battambang/Pailin	5.8	7.1	12.9	19.4	31.4	50.9	25.5	39.4	64.9	80.1	776
Kampot/Kep	6.8	11.2	18.0	16.6	36.2	52.8	23.8	47.4	71.2	74.7	568
Preah Sihanouk/Koh Kong	6.9	10.2	17.0	21.3	29.9	51.2	28.8	40.1	68.8	75.2	265
Preah Vihear/Steung Treng	11.1	11.6	22.7	15.2	22.1	37.3	26.8	33.8	60.5	62.4	261
Mondol Kiri/Rattanak Kiri	8.0	11.1	19.0	15.1	28.0	43.1	23.2	39.5	62.6	69.6	197
Education											
No schooling	5.1	12.4	17.4	10.8	31.7	42.5	16.5	44.2	60.7	71.3	2,221
Primary	6.1	11.6	17.7	17.5	32.7	50.2	24.0	44.6	68.6	74.1	6,489
Secondary and higher	6.2	7.1	13.3	27.0	30.3	57.3	34.1	37.5	71.6	81.4	2,917
Wealth quintile											
Lowest	7.2	13.3	20.5	17.1	28.0	45.2	25.0	41.6	66.6	69.2	2,299
Second	7.3	12.0	19.3	15.2	32.3	47.5	22.9	44.5	67.4	71.3	2,347
Middle	6.0	10.4	16.3	19.2	32.1	51.3	25.6	42.5	68.0	76.0	2,296
Fourth	5.2	9.7	14.9	19.9	32.7	52.6	25.7	42.9	68.6	78.3	2,319
Highest	4.2	7.7	11.8	21.6	34.4	56.0	26.1	42.3	68.4	82.7	2,364
Total	6.0	10.6	16.6	18.6	31.9	50.5	25.1	42.7	67.8	75.6	11,626

[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, who say they are unsure whether they want another child, or who want another child but are unsure when to have the child. In addition, unmet need for spacing includes pregnant women whose current pregnancy was mistimed, or whose last pregnancy was unwanted but who now say they want more children. Unmet need for spacing also includes amenorrheic women whose last birth was 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 amenorrheic women whose last birth was unwanted but who now say they do not want more children or who are undecided whether they want another child.
[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.

Six percent of currently married women have an unmet need for spacing, and 11 percent have an unmet need for limiting. The level of unmet need for spacing decreases with age, whereas the opposite is true for unmet need for limiting. Unmet need is higher among rural women than among urban women (18 percent and 12 percent, respectively). Across provinces, the overall unmet need for family planning is highest in Takeo (27 percent) and lowest in Phnom Penh (10 percent). Whereas unmet need for spacing remains about the same as level of education increases, unmet need for limiting is negatively associated with education.

The total demand for family planning rises from a low of 43 percent among women age 15-19 to a high of 81 percent among women age 35-39 and then declines to 48 percent among women age 45-49. Women with the highest levels of education have both the highest demand for family planning (72 percent) and the highest percentage of demand satisfied (81 percent). Total demand for family planning is fairly consistent across wealth quintiles (67 to 69 percent), but the percentage of demand satisfied increases with wealth quintile from 69 percent to 83 percent.

9.3 IDEAL FAMILY SIZE

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

Table 9.4 shows that the majority of respondents were able to provide a numeric response to these questions. Two percent of women gave nonnumeric responses such as “any number,” “depends on fate,” or “do not know.” Among women with no living children, 43 percent would like to have two children, 28 percent would like to have three children, and 16 percent would like to have four. Only 3 percent of women with no living children want five or more children. As women’s actual family sizes increase, so too do their ideal family sizes; only among those who have six or more children do more than one-quarter of mothers state that six or more children is their ideal family size. The mean ideal family size for all women also shows a positive association with number of living children: it increases from 2.6 children among childless women to 4.7 children among women with six or more children. The observed positive association between ideal family size and number of living children may arise for several possible reasons. First, women may tend to rationalize their family size by reporting their actual number of children as their ideal number, or, second, they may have achieved their preferred number of children. A third possibility is that there has been a decrease in the ideal family size among the youngest cohorts. The average ideal family size among all women who gave numeric responses is 3.1, whereas it is 3.4 children among currently married women. The data on ideal family size reported by men follow a pattern similar to that seen among women.

Table 9.4 Ideal number of children

Percent distribution of women and men 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children, Cambodia 2010

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
				WOMEN[1]				
0	3.8	0.3	0.3	0.7	0.4	0.7	1.9	1.7
1	2.2	3.5	0.6	0.5	0.6	0.5	0.1	1.5
2	43.4	49.6	35.6	11.1	10.0	6.8	5.6	32.0
3	28.3	27.5	28.3	41.7	11.7	18.6	16.1	27.4
4	15.6	13.8	26.6	29.9	53.6	17.2	25.7	23.1
5	2.9	3.8	7.2	12.5	16.3	43.6	20.2	9.1
6+	0.4	1.0	1.1	2.7	6.5	11.2	27.8	3.4
Nonnumeric responses	3.5	0.6	0.3	1.0	0.9	1.5	2.5	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,445	2,892	3,409	2,488	1,624	923	972	18,754
Mean ideal number children for:[2]								
All	2.6	2.7	3.1	3.5	4.0	4.4	4.7	3.1
Number	6,222	2,876	3,398	2,465	1,610	910	947	18,428
Currently married	2.8	2.7	3.1	3.5	4.0	4.4	4.6	3.4
Number	505	2,452	3,114	2,289	1,455	846	876	11,536
				MEN[3]				
0	1.8	1.8	2.3	4.3	6.9	3.3	6.4	2.8
1	1.4	3.4	1.1	0.2	0.6	1.1	0.8	1.4
2	44.5	45.1	32.1	8.7	5.1	5.0	4.3	31.7
3	32.8	30.6	31.6	40.5	12.1	12.6	8.5	29.8
4	15.9	16.2	25.2	32.2	55.1	17.8	18.3	22.6
5	2.0	2.7	6.1	10.6	13.3	43.1	18.2	7.2
6+	0.5	0.2	1.3	3.1	5.7	15.1	41.4	3.7
Nonnumeric responses	1.1	0.0	0.3	0.5	1.2	2.0	2.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,495	1,060	1,342	1,002	618	369	352	8,239
Mean ideal number children for:[2]								
All	2.7	2.7	3.0	3.4	3.8	4.4	5.0	3.1
Number	3,458	1,060	1,338	998	610	362	345	8,172
Currently married	2.6	2.7	3.0	3.4	3.8	4.4	5.0	3.3
Number	229	1,017	1,290	988	603	359	337	4,823

[1] The number of living children includes current pregnancy for women.
[2] Means are calculated excluding respondents who gave nonnumeric responses.
[3] The number of living children includes one additional child if respondent's wife is pregnant.

The mean ideal number of children for all women by five-year age groups and background characteristics is shown in Table 9.5. The mean ideal number of children increases with increasing age, from 2.6 children for women age 15-19 to 4.0 children for women age 45-49. The mean ideal number of children among rural women is only somewhat higher than among their urban counterparts. Women in Phnom Penh have the lowest mean ideal number of children (2.8), and women in Mondol Kiri/Rattanak Kiri and Kampong Chhnang have the highest (3.5 children). Mean ideal family size decreases with increasing education and wealth quintile.

Table 9.5 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Cambodia 2010

Background characteristic	Mean	Number of women[1]
Age		
15-19	2.6	3,593
20-24	2.8	3,112
25-29	2.9	3,237
30-34	3.2	2,145
35-39	3.5	2,018
40-44	3.8	2,271
45-49	4.0	2,052
Residence		
Urban	2.9	3,864
Rural	3.2	14,563
Province		
Banteay Mean Chey	3.3	717
Kampong Cham	3.2	2,063
Kampong Chhnang	3.5	737
Kampong Speu	3.3	1,010
Kampong Thom	3.4	912
Kandal	3.2	1,908
Kratie	3.4	433
Phnom Penh	2.8	2,135
Prey Veng	3.2	1,336
Pursat	2.9	530
Siem Reap	3.0	1,209
Svay Rieng	2.9	753
Takeo	3.0	1,167
Otdar Mean Chey	3.2	251
Battambang/Pailin	3.2	1,311
Kampot/Kep	3.1	883
Preah Sihanouk/Koh Kong	3.3	437
Preah Vihear/Steung Treng	3.2	360
Mondol Kiri/Rattanak Kiri	3.5	275
Education		
No schooling	3.5	2,916
Primary	3.2	9,118
Secondary and higher	2.8	6,393
Wealth quintile		
Lowest	3.3	3,301
Second	3.3	3,457
Middle	3.2	3,539
Fourth	3.1	3,782
Highest	2.9	4,348
Total	3.1	18,428

[1] Number of women who gave a numeric response

9.4 FERTILITY PLANNING

The 2010 CDHS provides an opportunity to estimate levels of unwanted fertility. Unwanted fertility can be estimated in one of two ways. Women were asked a series of questions about each of their children born in the five years preceding the survey, as well as any current pregnancy, to determine whether the pregnancy was wanted then (planned), wanted later (mistimed), or not wanted (unplanned) at the time of conception. This information may underestimate unplanned childbearing given that women may rationalize unplanned births and declare them as planned once they occur. Another way of measuring unwanted fertility utilizes the data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size.

Table 9.6 shows that 9 percent of births in the five years preceding the survey were not wanted, down from 19 percent of births being unwanted in the 2005 CDHS. Seven percent of births were mistimed (wanted later), down from 9 percent in 2005. The proportion of unwanted births rises with birth order, increasing from 1 percent among first-order births to 4 percent among second-order births, 9 percent among third-order births, and, finally, 26 percent among fourth- and higher-order births. The percentage of unwanted births also increases with mother's age.

Table 9.6 Fertility planning status

Percent distribution of births to women 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, Cambodia 2010

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	93.7	5.1	1.0	0.3	100.0	3,133
2	86.5	9.2	4.2	0.2	100.0	2,441
3	84.0	7.2	8.8	0.0	100.0	1,510
4+	67.5	5.3	26.4	0.8	100.0	2,049
Mother's age at birth						
<20	90.3	8.0	1.4	0.3	100.0	914
20-24	88.9	7.5	3.4	0.3	100.0	2,947
25-29	85.7	7.2	7.0	0.1	100.0	2,795
30-34	80.0	4.8	14.6	0.6	100.0	1,252
35-39	73.2	4.1	22.3	0.5	100.0	851
40-44	62.1	3.4	33.3	1.2	100.0	348
45-49	(68.3)	(1.6)	(30.1)	(0.0)	100.0	26
Total	84.3	6.6	8.8	0.3	100.0	9,133

Note: Figures in parentheses are based on 25-29 unweighted cases.

Table 9.7 shows wanted fertility rates calculated using the second approach to measuring unwanted fertility. The wanted fertility rate is computed in the same way as the total fertility rate, except that unwanted births are excluded from the numerator. In this case, unwanted births are those that exceed the number mentioned as ideal by the respondent. This rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been prevented.

The overall wanted fertility rate is 2.6 children, a decrease from 2.8 children in the 2005 CDHS. The wanted fertility rate is about half a child lower than the actual total fertility rate of 3.0 children in the country. Overall, the gap between wanted and observed fertility is larger when the total fertility rate is still high, as can be observed by comparing figures across provinces. The gap between wanted and actual fertility is almost one child in Mondol Kiri/Rattanak Kiri, where the total fertility rate is 4.5. By contrast, the gap between wanted and actual fertility in Phnom Penh, with the lowest total fertility rate (2.0), is only 0.2 children.

The gap between wanted and observed fertility rates is greater among women living in rural areas than in urban areas, likely indicating that women in rural areas have the desire to limit their births but may not have sufficient access to contraceptive technology. The difference between wanted and actual fertility is lowest among women with a secondary education or higher and highest among women with no education, a finding that likely indicates an urbanization effect: women in urban areas are more likely to be educated and to have access to modern contraceptive methods, thus producing an association between education and greater propensity toward achieving desired fertility.

Table 9.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Cambodia 2010

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	2.0	2.2
Rural	2.8	3.3
Province		
Banteay Mean Chey	2.9	3.2
Kampong Cham	2.9	3.4
Kampong Chhnang	3.1	3.6
Kampong Speu	2.8	3.1
Kampong Thom	2.8	3.2
Kandal	2.4	2.9
Kratie	3.3	3.9
Phnom Penh	1.8	2.0
Prey Veng	3.1	3.3
Pursat	3.0	3.4
Siem Reap	2.9	3.4
Svay Rieng	2.3	2.6
Takeo	2.5	3.1
Otdar Mean Chey	2.6	3.2
Battambang/Pailin	2.7	3.2
Kampot/Kep	2.5	2.8
Preah Sihanouk/Koh Kong	2.6	2.9
Preah Vihear/Steung Treng	3.0	3.5
Mondol Kiri/Rattanak Kiri	3.6	4.5
Education		
No schooling	3.1	3.7
Primary	2.9	3.4
Secondary and higher	2.2	2.4
Wealth quintile		
Lowest	3.7	4.5
Second	2.8	3.3
Middle	2.7	3.0
Fourth	2.4	2.7
Highest	1.9	2.1
Total	2.6	3.0

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.

ADULT AND MATERNAL MORTALITY 10

Estimates of maternal mortality require comprehensive and accurate reporting of maternal deaths. Such reporting can be obtained through vital registration, longitudinal studies of pregnant women, or repeated household surveys. The 2010 Cambodia Demographic and Health Survey (CDHS) is the third population-based national survey (following the 2000 CDHS and 2005 CDHS) to incorporate questions on maternal mortality. The CDHS asked female respondents a series of questions designed with the explicit purpose of providing the necessary information to make direct estimates of maternal mortality.

However, in order to avoid serious misinterpretation of the results of the survey, it is crucial for users of this information to understand the problems inherent in measuring maternal mortality. Direct estimates of maternal mortality rely on data on the age of surviving sisters of survey respondents, the age at death of sisters who have died, and the number of years that have passed since the death of the sisters. CDHS interviewers listed all of the brothers and sisters born to the natural mother of female respondents, in chronological order, starting with the first born. Information was then obtained on the survivorship of each of the siblings, the ages of surviving siblings, the year of death or years since death of deceased siblings, and the age at death of deceased siblings. For each sister who died at age 12 or above, the respondent was asked additional questions to determine whether the death was maternity related, that is, whether the sister was pregnant when she died, and if so, whether the sister died during childbirth, and if not, whether the sister died within 6 weeks of the termination of a pregnancy or childbirth. Listing all siblings in chronological order of their birth is done with the intention of improving the completeness of reporting. Collecting data on both male and female siblings also allows direct estimation of adult male and female mortality.

10.1 DATA QUALITY ISSUES

Estimation of adult and maternal mortality requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number who have died, and the number of sisters who died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. Table 10.1 shows the number of siblings reported by female respondents and the completeness of the reported data on current age, age at death, and years since death.

Table 10.1 Data on siblings

Number of siblings reported by female survey respondents and completeness of reported data on sibling age, age at death (AD), and years since death (YSD), Cambodia 2010

	Sisters		Brothers		All siblings	
Sibling	Number	Percent	Number	Percent	Number	Percent
All siblings	44,897	100.0	47,085	100.0	91,982	100.0
Surviving	38,575	85.9	38,158	81.0	78,733	83.4
Dead	6,272	14.0	8,829	18.8	15,101	16.4
Missing survival information	50	0.1	98	0.2	148	0.2
Living siblings	38,575	100.0	38,158	100.0	76,733	100.0
Age reported	38,539	99.9	38,129	99.9	76,667	99.9
Age missing	37	0.1	29	0.1	66	0.1
Dead siblings	6,272	100.0	8,829	100.0	15,101	100.0
AD and YSD reported	6,253	99.7	8,798	99.6	15,050	99.7
AD missing	7	0.1	11	0.1	18	0.1
YSD missing	5	0.1	10	0.1	15	0.1
Both AD and YSD missing	7	0.1	11	0.1	18	0.1

As a group, 2010 CDHS female respondents were able to report the survival status of more than 99 percent of their siblings; whether or not a brother or sister was alive or dead was unknown for 0.2 percent of siblings. Sex ratio is defined as the number of males per 100 females. The sex ratio of siblings who have died is calculated as the number of brothers per 100 sisters (8,829 brothers who died compared with 6,272 sisters who died). The sex ratio of siblings who have died was 141, which is very high and may be the consequence of the higher male mortality during the Khmer Rouge period. Fighting in the post-Khmer Rouge period continued until the signing of the Paris Peace Accord in 1993; this fighting would have also contributed to the high sex ratio of dead siblings. Overall, the data on siblings are nearly complete, with age reported for 99.9 percent of living siblings and age at death and years since death reported for 99.7 percent of siblings who have died, with little difference between brothers and sisters. Rather than excluding siblings with missing information from the analysis, the information on the birth order of siblings, in conjunction with other information, is used to impute the missing data.[1]

Another crude measure of data quality is the mean number of siblings, or the mean sibship size (Table 10.2). Sibship size is expected to decline as fertility declines over time. The monotonic decline in sibship size that would be expected to accompany declining fertility is supportive of more complete reporting of older siblings. Sex ratios at birth are near the internationally accepted range of 103 to 105, suggesting that there is no serious underreporting or overreporting of brothers or sisters. However, it should be borne in mind that any information that relies on recall will suffer from some degree of misreporting, especially if it pertains to deceased persons and involves events that occurred a long period of time before the survey.

Table 10.2 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of births, Cambodia 2010

Respondent's year of birth	Mean sibship size	Sex ratio at birth of siblings
1960-64	6.2	102.7
1965-69	6.3	100.8
1970-74	6.2	103.6
1975-79	6.4	103.2
1980-84	6.0	107.3
1985-89	5.8	107.3
1990-94	5.3	106.1
1995 or 1996	5.0	106.9
Total	5.9	104.9

10.2 ADULT MORTALITY

Because maternal mortality is a subset of adult mortality, estimates of overall adult mortality are calculated before estimates of maternal mortality. If overall adult mortality estimates display a general, stable, and plausible pattern, then credence is given to the maternal mortality estimates derived thereafter.

Direct estimates of male and female adult mortality are obtained from information collected in the sibling history. Age-specific death rates are computed by dividing the number of deaths in each age group by the total person-years of exposure in that age group during a specified reference period. In total, female respondents reported 91,982 siblings, of whom 44,897 were sisters and 47,085 were brothers (Table 10.1). Direct estimates of age-specific mortality rates for men and women are shown in Table 10.3. To minimize the impact of possible heaping on years since death ending in zero and five, direct estimates are presented for the period 0-6 years before the survey, which roughly corresponds[2] to July 2004 to January 2011. Aggregating the data over the age range 15-49 will reduce the effects of sampling variability. There are more male than female deaths in the seven years

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

[2] The time period is not exact because, as with all DHS calculations of exposure time, exposure is calculated separately for each respondent, counting back in time from the date of the interview, and dates of interview in the 2010 CDHS spanned a period of six months.

preceding the survey (756 versus 474). The male mortality rate is 4.1 deaths per 1,000 population, a figure higher than the female mortality rate of 2.5 deaths per 1,000 population.

10.3 MATERNAL MORTALITY

Estimates of maternal mortality for the period 0-6 years before the survey are shown in Table 10.4. This period of time was chosen to reduce possible heaping of reported years since death on five-year intervals. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility in the 2010 CDHS is 49 years), the overall rate for women age 15-49 is standardized by the age distribution of the survey respondents. Maternal deaths are defined as any death that occurred during pregnancy, childbirth, or within 6 weeks after the birth or termination of a pregnancy. This time-specific definition includes all deaths occurring during the specified period even if the death is due to causes that are not pregnancy related. However, this definition is unlikely to result in overreporting of maternal deaths because most deaths to women in the specified period are due to maternal causes, and maternal deaths in general are more likely to be underreported than overreported. For any given age group, maternal deaths are a relatively rare occurrence, and as such the age-specific pattern should be interpreted with caution.

Table 10.3 Adult mortality rates

Estimated adult mortality rates for women and men for the period 0-6 years prior to the survey, Cambodia 2010

Age	Deaths	Exposure	Mortality rate[1]
WOMEN			
15-19	41	38,695	1.1
20-24	41	44,460	0.9
25-29	57	38,242	1.5
30-34	53	28,690	1.9
35-39	79	26,991	2.9
40-44	101	21,069	4.8
45-49	101	14,998	6.7
15-49	474	213,143	2.5[a]
MEN			
15-19	64	40,585	1.6
20-24	86	46,694	1.8
25-29	110	39,587	2.8
30-34	124	29,145	4.3
35-39	130	25,521	5.1
40-44	155	18,828	8.2
45-49	86	10,840	8.0
15-49	756	211,199	4.1[a]

Note: Exposure years are calculated using a life table technique; here, they represent the number of person-years that men or women are exposed to the probability of dying.
[1] Expressed per 1,000 population
[a] Age-adjusted rate

There were 40 maternal deaths in the seven years preceding the survey. During the period 2004-2010, the maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49, was 0.20. Maternal deaths accounted for 8.5 percent of all deaths to women age 15-49; in other words, about 1 in 11 Cambodian women who died in the seven years preceding the survey died as a result of pregnancy or pregnancy-related causes. Maternal deaths accounted for a lower proportion of overall deaths than they had in the past; in the 2000 CDHS and 2005 CDHS, respectively, maternal deaths accounted for 18 percent and 17 percent of all female deaths in the seven years prior to each survey.

The maternal mortality ratio, obtained by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate, is often considered a more useful measure of maternal mortality because it measures the obstetric risk associated with each live birth. Table 10.4 shows that the maternal mortality ratio for Cambodia for the period 2004-2010 was 206 deaths per 100,000 live births (or, alternatively, 2.06 deaths per 1,000 live births). The 95 percent confidence interval of this estimate fell between 124 and 288 deaths per 100,000 live births. The maternal mortality ratio can be converted to an estimate of the lifetime risk of dying from maternal causes: 0.006 or, in other words, a risk of dying of 1 in 165.

Table 10.4 Direct estimates of maternal mortality

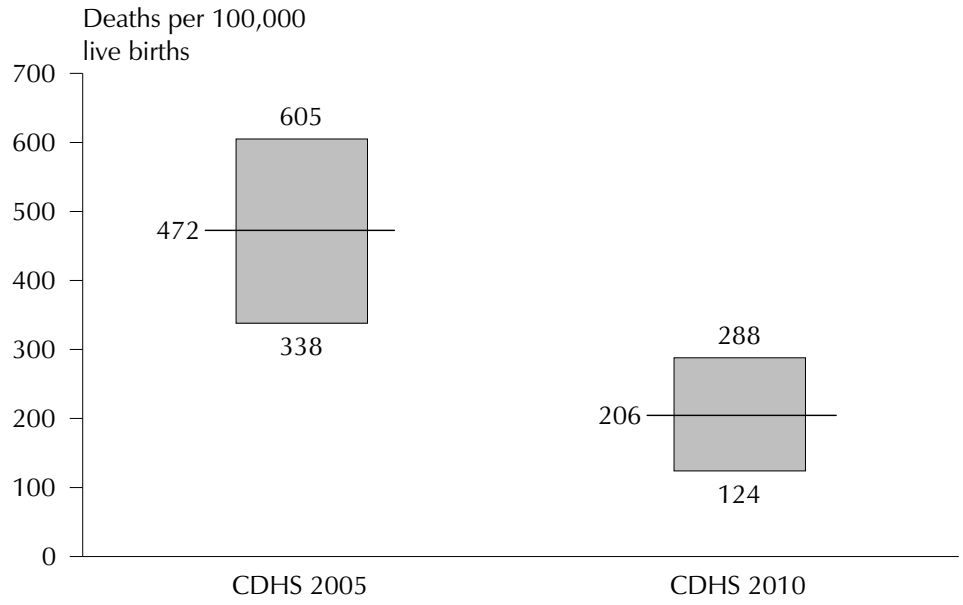
Direct estimates of maternal mortality for the period 0-6 years prior to the survey, Cambodia 2010

Age	Maternal deaths	Exposure years	Maternal mortality rate[1]	Proportion of maternal deaths to all women deaths
15-19	3	38,695	0.1	7.3
20-24	3	44,460	0.1	7.6
25-29	9	38,242	0.2	15.5
30-34	8	28,690	0.3	14.2
35-39	4	26,991	0.2	5.5
40-44	11	21,069	0.5	11.1
45-49	2	14,998	0.1	2.2
Total	40	213,143	0.2[a]	8.5
General fertility rate (GFR)		95[a]		
Maternal mortality ratio (MMR)[2]		206		
Lifetime risk of maternal death[3]		0.006		

[1] Expressed per 1,000 woman-years of exposure
[2] Expressed per 100,000 live births; calculated as the maternal mortality rate divided by the general fertility rate
[3] Lifetime risk of maternal death = 1 – (1 – MMR/100,000)^{TFR} where TFR represents the total fertility rate for the period 0-6 years prior to the survey (= 3.1)
[a] Age-adjusted rate

In the 2005 CDHS, the maternal mortality ratio was 472 deaths per 100,000 live births, with a 95 percent confidence interval between 338 and 605 deaths per 100,000 live births. A comparison of the maternal mortality ratio between the two survey periods, taking into consideration the confidence interval, shows no reason to doubt that there has been a decline in the maternal mortality ratio between 2005 and 2010. Nevertheless, the level of decline should be interpreted with caution due to the proximity between the upper limit of the 95 percent confidence interval of the 2010 data (288 deaths per 100,000 live births) and the lower limit of the 95 percent confidence interval of the 2005 data (338 deaths per 100,000 live births) (Figure 10.1).

Figure 10.1 Confidence Interval of the Maternal Mortality Rates for the Period of 2000-2005 (CDHS 2005) and 2005-2010 (CDHS 2010)



INFANT AND CHILD MORTALITY 11

This chapter describes levels of and trends in neonatal, postneonatal, infant, and child mortality in Cambodia. Infant and child mortality rates reflect a country's socioeconomic situation as well as the quality of life of the population under study. Childhood mortality is affected by socioeconomic conditions and can vary according to the demographic characteristics of children and their mothers. Therefore, differentials in infant and child mortality by socioeconomic and demographic characteristics are also presented in this chapter.

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

The data used to compute the childhood mortality rates presented in this chapter were derived from the birth history section of the Woman's Questionnaire. Each woman age 15-49 was asked whether she had ever given birth, and, if she had, she was asked to report the number of sons and daughters who live with her, the number who live elsewhere, and the number who have died. In addition, she was asked to provide a detailed birth history of her children in chronological order starting with the first child. Women were asked whether a birth was single or multiple, the sex of the child, the date of birth (month and year, according to either the Gregorian or the Khmer calendar system), survival status, age of the child on the date of the interview if alive, and, if not alive, the age at death of each live birth. Childhood mortality rates, expressed as deaths per 1,000 live births, are defined as follows:

- **Neonatal mortality:** the probability of dying within the first month of life
- **Post-neonatal mortality:** the probability of dying between the first month of life and first birthday (computed as the difference between infant and neonatal mortality)
- **Infant mortality:** the probability of dying between birth and the first birthday
- **Child mortality:** the probability of dying between the first and fifth birthday
- **Under-five mortality:** the probability of dying between birth and the fifth birthday

11.1 ASSESSMENT OF DATA QUALITY

The reliability of mortality estimates depends on sampling errors and nonsampling errors. Sampling errors are discussed in detail in Appendix B. Nonsampling errors depend on the extent to which the date of birth and age at death are accurately reported and recorded and the completeness with which child deaths are reported. Omission of births and deaths affects mortality estimates, displacement of dates of births and of deaths impacts mortality trends, and misreporting of age at death may alter the age pattern of mortality. Typically, the most serious source of nonsampling errors in a survey that collects retrospective information on births and deaths is underreporting of both births and deaths of children who are not alive at the time of the survey. It may be that mothers are generally reluctant to talk about their dead children because of the sorrow associated with any death, or they may live in a culture that discourages discussing the dead. Underreporting of births and deaths is generally more severe the further back in time an event occurred.

An unusual pattern in the distribution of births by calendar years is an indication of omission of children or age displacement. However, Table C.4 in Appendix C shows that the percentage of all births for which a month and year of birth were reported remains stable over time, ranging from 100 percent of births in 2011 to 98.7 percent of births prior to 1992. There is little difference in reporting by whether or not the child is alive (99 percent of births) or dead (96 percent of births).

Underreporting of deaths is usually assumed to be higher for deaths that occur very early in infancy. An examination of the ratios in Tables C.5 and C.6 shows no significant number of early infant deaths being omitted in the 2010 Cambodia Demographic and Health Survey (CDHS). Another problem with survey data is misreporting deaths that occur in the late postneonatal period. Such misreporting results in an underestimate of the infant mortality rate and an overestimate of the child mortality rate. Table C.6 displays some digit preferences in reported deaths at age 12 months. This age "heaping" occurred despite the care taken in the CDHS to minimize such errors by requiring that age at death be recorded in days if the death took place within one month of birth, in months if the child died within 24 months of birth, and in years if the child died between age 2 and 5.

Omissions can also be detected by examining the proportion of neonatal deaths that occur during the first week of life and the proportion of infant deaths that take place during the first month of life. If there is substantial underreporting of deaths, the result would be an abnormally low ratio of deaths before seven days to all neonatal deaths. Because underreporting of deaths is likely to be more common for births that occurred a long period of time before the survey, it is important to explore whether these ratios change markedly over time.

Inspection of the ratio of deaths in the first six days of life to all neonatal deaths (shown in the Appendix C, Table C.5) shows that the proportion of neonatal deaths that took place in the first week of life ranges from 81 percent for deaths during the period 0-4 years before the survey to 67 percent for deaths during the period 15-19 years before the survey. There is some variation over time in the proportion of neonatal deaths to all infant deaths (shown in Appendix C, Table C.6), which ranges from 62 percent in the period 0-4 years before the survey to 40 percent during the period 10-19 years before the survey. These ratios are within acceptable limits for the levels of mortality observed during these time periods.

11.2 Levels and Trends in Childhood Mortality

Table 11.1 presents neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey. Neonatal mortality in the most recent period is 27 deaths per 1,000 live births. This rate is higher than the postneonatal mortality rate (18 deaths per 1,000 live births) during the same period; that is, the risk of dying for any child who survived the first month of life decreases during the period of the next 11 months. Thus, 45 of every 1,000 babies born in Cambodia do not survive to their first birthday. Under-five mortality in Cambodia is 54 deaths per 1,000 live births.

Table 11.1 Early childhood mortality rates

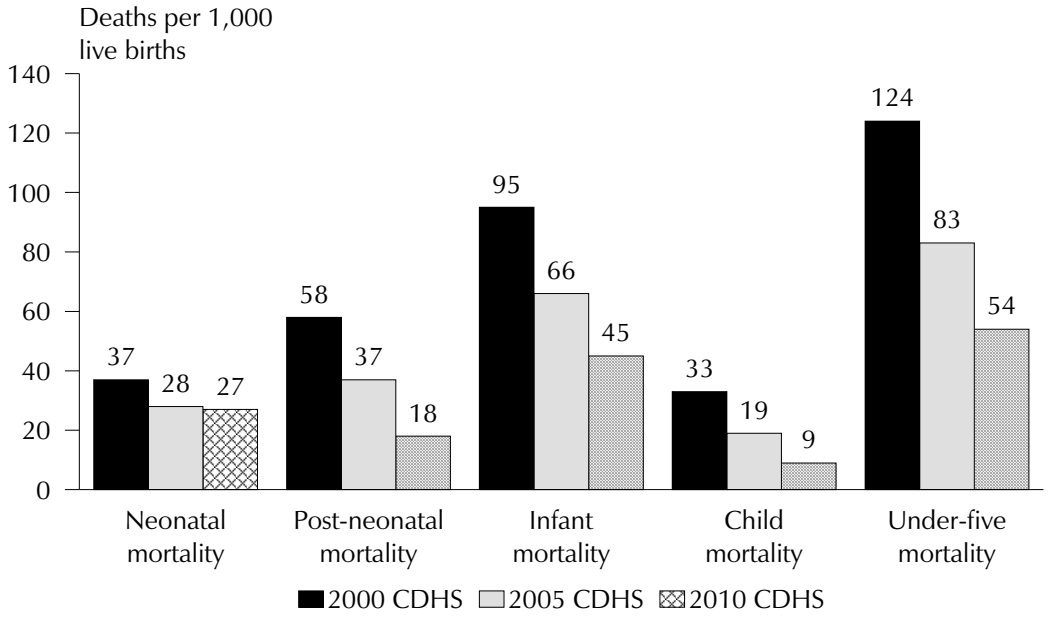
Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Cambodia 2010

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	27	18	45	9	54
5-9	36	35	71	13	83
10-14	38	57	95	23	116

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

Trends in the childhood mortality rate can be established by comparing the results of the 2010 CDHS with the findings from the 2000 CDHS and 2005 CDHS, in which data were collected using the same techniques and estimates were calculated using the same methodology. Figure 11.1 shows that infant mortality has declined substantially in the past 10 years, from 95 deaths per 1,000 live births in 2000 to 66 per 1,000 in 2005 and 45 per 1,000 in 2010. Under-five mortality also declined during this period, from 124 deaths per 1,000 live births in 2000 to 83 per 1,000 in 2005 and 54 per 1,000 in 2010.

Figure 11.1 **Trends in Childhood Mortality, 2000, 2005, and 2010 CDHS**



CDHS 2010

11.3 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

Results presented in Table 11.2 and Figure 11.2 show that childhood mortality in Cambodia varies significantly by the socioeconomic characteristics of households and mothers.[1] Mortality in urban areas is consistently lower than in rural areas. For example, infant mortality in urban areas is approximately three times lower than infant mortality in rural areas (22 deaths per 1,000 live births versus 64 deaths per 1,000 live births). The urban-rural gap is wider for neonatal mortality, which is more than three times higher in rural areas than in urban areas. Differentials in mortality by province are also substantial, particularly the large differences between the lowest and highest mortality rates. Phnom Penh has the lowest rates of neonatal mortality (8 deaths per 1,000 live births), infant mortality (13 deaths per 1,000 live births), and under-five mortality (18 deaths per 1,000 live births). The highest neonatal mortality rates are found in Kratie, Kampong Chhnang, and Kampot/Kep (more than 40 deaths per 1,000 live births), whereas Preah Vihear/Steung Treng and Mondol Kiri/Rattanak Kiri have the highest rates of infant mortality (95 deaths per 1,000 live births and 82 deaths per 1,000 live births, respectively) and under-five mortality (118 deaths per 1,000 live births and 106 deaths per 1,000 live births, respectively).

[1] To have a sufficient number of cases to ensure statistically reliable mortality estimates, rates presented in Tables 11.2 and 11.3 are calculated for a 10-year period.

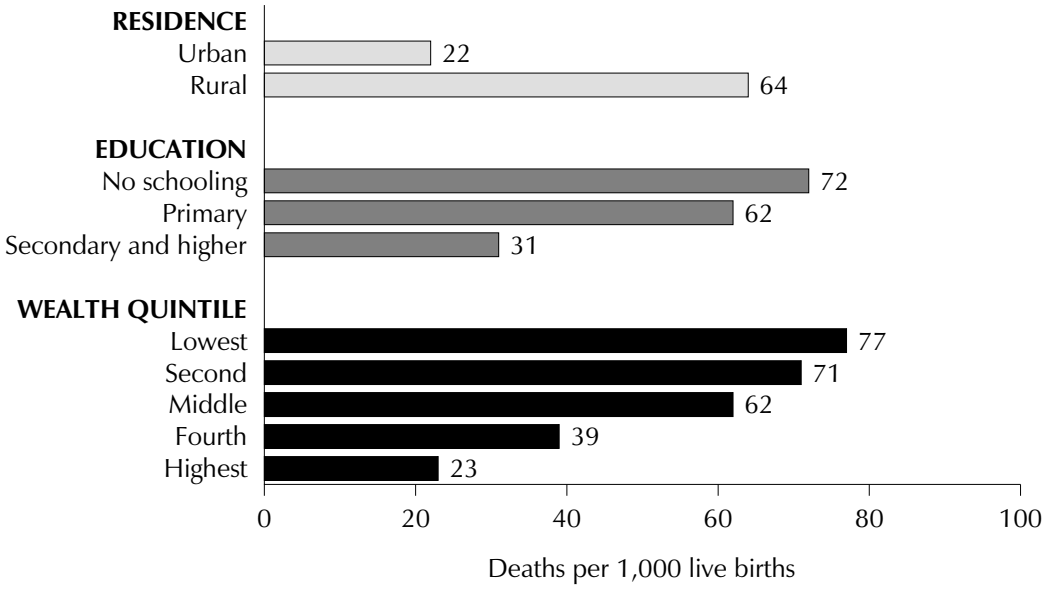
Table 11.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Cambodia 2010

Background characteristic	Neonatal mortality (NN)	Post neonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	11	11	22	7	29
Rural	35	29	64	12	75
Province					
Banteay Mean Chey	26	34	61	16	76
Kampong Cham	33	20	54	4	58
Kampong Chhnang	45	33	78	20	97
Kampong Speu	39	26	65	9	73
Kampong Thom	29	27	57	11	67
Kandal	34	27	61	8	69
Kratie	47	30	76	10	86
Phnom Penh	8	5	13	5	18
Prey Veng	34	30	64	10	74
Pursat	29	24	53	4	57
Siem Reap	28	22	50	10	60
Svay Rieng	27	51	78	16	93
Takeo	37	31	68	17	84
Otdar Mean Chey	20	22	42	5	47
Battambang/Pailin	28	17	45	10	54
Kampot/Kep	44	16	60	14	73
Preah Sihanouk/Koh Kong	20	30	50	14	63
Preah Vihear/Steung Treng	29	65	95	26	118
Mondol Kiri/Rattanak Kiri	30	53	82	26	106
Mother's education					
No schooling	35	37	72	16	87
Primary	34	28	62	11	73
Secondary and higher	20	11	31	4	35
Wealth quintile					
Lowest	39	38	77	15	90
Second	34	37	71	13	83
Middle	35	27	62	7	68
Fourth	26	13	39	10	49
Highest	16	6	23	8	30

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

Figure 11.2 Infant Mortality Rates by Socioeconomic Characteristics



CDHS 2010

As expected, mortality declines markedly as mother's education increases. Children born to mothers with no schooling have the highest mortality rates. According to the survey results, the infant mortality rate among children of mothers with a secondary education or higher is 31 deaths per 1,000 live births, much lower than the rate of 72 deaths per 1,000 live births among children of mothers with no schooling.

In addition, mortality declines markedly as the wealth of the household increases. Children born in poorer households suffer higher mortality than those born in wealthier households. For example, infant and under-five mortality rates are three times higher among children living in the poorest households than among those living in the wealthiest households.

11.4 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Infant and child mortality varies substantially by the demographic characteristics of mothers and children. Table 11.3 shows childhood mortality rates by different demographic variables. With the exception of child mortality, mortality rates are higher among male children than among female children during all periods of life before the age of 5 years. This excess mortality among boys is not observed only in Cambodia but is a universal phenomenon.

Table 11.3 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Cambodia 2010

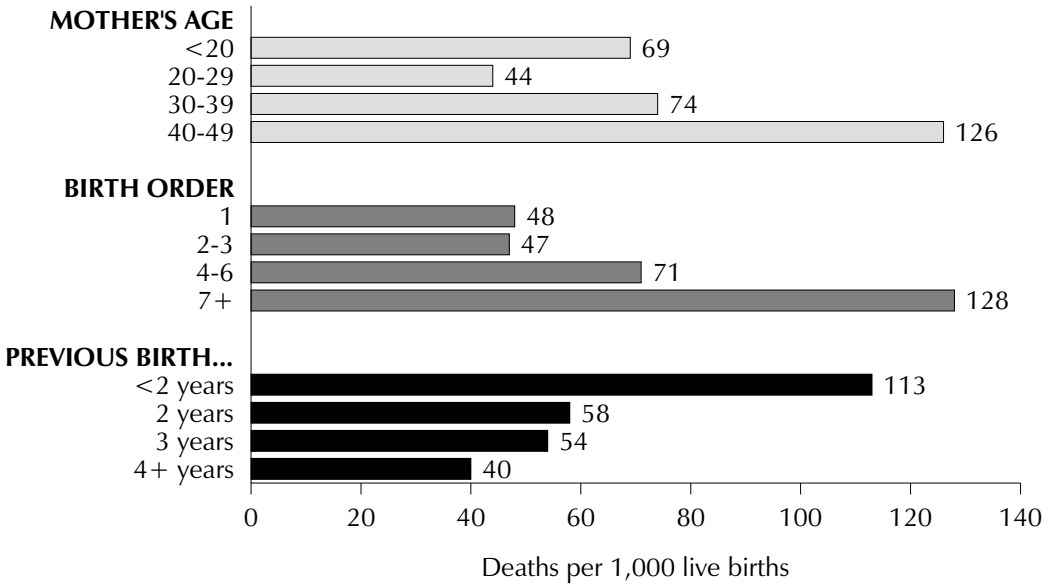
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	36	31	66	11	76
Female	27	22	49	11	59
Mother's age at birth					
<20	50	19	69	8	77
20-29	23	21	44	9	53
30-39	38	36	74	14	87
40-49	61	64	126	21	144
Birth order					
1	31	17	48	7	55
2-3	26	21	47	9	56
4-6	34	37	71	16	85
7+	60	68	128	20	145
Previous birth interval[2]					
<2 years	58	55	113	19	130
2 years	28	30	58	12	69
3 years	25	29	54	8	62
4+ years	22	18	40	12	51
Birth size[3]					
Small/very small	73	24	97	na	na
Average or larger	19	16	34	na	na

[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
na = Not applicable

The distribution of infant mortality by maternal age at birth is a U-shaped curve, being relatively higher among children born to mothers under age 20 and over age 40 than among children born to mothers in the middle age groups. Relationships between infant mortality and specific demographic characteristics are illustrated in Figure 11.3.

First-order births appear to be at the same risk of mortality as second- or third-order births, whereas the risk increases for births of order four to six. However, significant increases in risk are most apparent for births of order seven and higher. Infant mortality rates for children of a seventh or higher birth order are nearly three times the rates for children of a third or lower birth order.

Figure 11.3 Infant Mortality Rates by Demographic Characteristics



CDHS 2010

Short birth interval is one of the risk factors for childhood mortality. For example, children born less than two years after a preceding birth are about twice as likely to die within the first month of life as children born after a two-year interval (58 deaths per 1,000 live births versus 28 per 1,000). The relationship between short birth interval and infant mortality is even more striking; a child born less than two years after a preceding birth is almost three times as likely to die before his or her first birthday as a child born four or more years after a preceding birth (113 deaths per 1,000 live births versus 40 per 1,000).

Studies have demonstrated that children's weight at birth is an important determinant of their survival chances. Actual birth weights were unavailable for most children; instead, mothers were asked whether their child was very large, larger than average, average, smaller than average, or small at birth, because this has been found to be a good proxy for a child's weight at birth. Those children reported by their mother to be small or very small were almost four times more likely to die before the age of 1 month than those reported to be average or larger.

11.5 High-Risk Fertility Behavior

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

Table 11.4 shows the percent distribution of children born to currently married women in the five years before the survey by these risk factors. One-third of births (33 percent) were not in any high-risk category. Thirty-one percent were first births to women between the age of 18 and 34—considered an unavoidable risk category—whereas 23 percent of births were in a single high-risk category and 13 percent were in a multiple high-risk category. The most common single high-risk category was births of order three and above (10 percent), and the most common multiple high-risk category was births to mothers older than 34 years and of birth order three and above (10 percent).

Table 11.4 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Cambodia 2010

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	33.0	1.00	26.3[a]
Unavoidable risk category			
First-order births between ages 18 and 34	31.0	1.39	5.8
Single high-risk category			
Mother's age <18	2.4	2.49	0.3
Mother's age >34	3.0	2.20	8.5
Birth interval <24 months	7.0	1.94	10.1
Birth order >3	10.4	1.73	9.2
Subtotal	22.9	1.94	28.1
Multiple high-risk category			
Age <18 & birth interval <24 months[2]	0.1	*	0.1
Age >34 & birth interval <24 months	0.2	*	0.3
Age >34 & birth order >3	9.5	3.17	33.3
Age >34 & birth interval <24 months & birth order >3	1.1	10.20	2.1
Birth interval <24 months & birth order >3	2.1	3.57	4.1
Subtotal	13.1	3.87	39.7
In any avoidable high-risk category	36.0	2.64	67.8
Total	100.0	na	100.0
Number of births/women	8,200	na	11,626

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3
[a] Includes sterilized women

The risk ratios displayed in the second column of Table 11.4 denote the relationship between risk factors and mortality. For example, the risk of dying for a child who falls into any of the avoidable high-risk categories is 2.6 times higher than for a child not in any 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. Most vulnerable are children born to a mother older than age 34, born less than 24 months after a preceding birth, and of a birth order greater than 3; they are 10 times as likely to die as children who are not in any high-risk category. However, only 1 percent of births fall into this category. Among the single high-risk categories, having a mother less than 18 years old results in a child having 2.5 times the risk of dying of children not in any high-risk category.

The final column of Table 11.4 illustrates the potential currently married women have of experiencing a high-risk birth. A woman's status at the time of the survey with regard to her age, time elapsed since the last birth, and parity is used to classify her into a potential risk category if she were to become pregnant at the time of the survey. For example, if a respondent who is age 40, has had four births, and had her last birth 12 months ago were to become pregnant, she would fall into the multiple high-risk category of being too old, too high parity (four or more births), and giving birth too soon (less than 24 months) after a previous birth.

Overall, approximately two-thirds of currently married women (68 percent) have the potential of giving birth to a child at elevated risk of mortality. Twenty-eight percent of women have the potential for having a birth in a single high-risk category, and about two in five women have the potential for having a birth in a multiple high-risk category (mainly older maternal age and high birth order).

MATERNAL HEALTH 12

This chapter presents findings on important areas of maternal health: antenatal, delivery, and postnatal care. This information, in combination with data from other chapters, is useful in formulating programs and policies to improve maternal and child health services.

12.1 ANTENATAL CARE

The health care that a mother receives during pregnancy and at the time of delivery is important for the survival and well-being of both the mother and the child. Antenatal care (ANC) from a trained provider is vital in monitoring the pregnancy and reducing morbidity risk for the mother and child during pregnancy and delivery. In the 2010 Cambodia Demographic and Health Survey (CDHS), women who had given birth in the five years preceding the survey were asked about the type of ANC provider, number of ANC visits, stage of pregnancy at the time of the first and last visits, and services and information provided during ANC. For women with two or more live births during the five-year period, data on antenatal care refer to the most recent birth only. A well-designed and well-implemented ANC program facilitates detection and treatment of problems during pregnancy, such as anemia and infections, and provides an opportunity to disseminate health messages to women and their families.

12.1.1 Source of Antenatal Care

Table 12.1 shows the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy. Eighty-nine percent of women received ANC from trained personnel (doctors, nurses, and midwives) at least once. Four in five women (79 percent) received care during pregnancy from midwives, 9 percent received care from a doctor, and 1 percent received care from a nurse. Only 10 percent of women received no antenatal care for births in the preceding five years. The 2010 data show a significant increase in antenatal care since the 2005 CDHS, when only 69 percent of women had received antenatal care from a trained health professional. In 2005, more than one-fourth of women (28 percent) received no antenatal care.

Younger women were more likely than older women to receive antenatal care from trained personnel. Women were more likely to receive care from a health professional for first births (96 percent) than for births of order six and higher (71 percent). Urban and rural women differed in their use of antenatal care services. Health professionals provided antenatal care for 97 percent of women in urban areas and 88 percent of women in rural areas. More than 11 percent of women in rural areas received no antenatal care at all, as compared with 3 percent in urban areas.

Provincial differences in source of antenatal care were significant. For example, virtually all (99 percent) women in Phnom Penh received antenatal care from a health professional, as compared with 62 percent of women in Mondol Kiri/Rattanak Kiri.

The use of antenatal care services was strongly associated with a woman's level of education. Women with a secondary education or higher were more likely to receive antenatal care from any trained personnel (98 percent) than women with a primary education (89 percent) and women with no education (77 percent). Twenty-two percent of uneducated women received no antenatal care at all, with the proportion decreasing to 10 percent among women with a primary school education and 2 percent among women with a secondary education or higher.

Table 12.1 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, Cambodia 2010

Background characteristic	Doctor	Nurse	Midwife	Traditional birth attendant	Village health volunteer	Other	No one	Missing	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
Mother's age at birth											
<20	6.3	2.1	83.4	0.1	0.3	0.1	7.7	0.0	100.0	91.8	555
20-34	10.3	0.7	79.6	0.2	0.2	0.1	8.8	0.0	100.0	90.7	4,917
35-49	6.7	0.7	72.5	0.9	0.2	0.0	18.5	0.6	100.0	79.9	999
Birth order											
1	11.7	1.0	82.9	0.1	0.1	0.1	4.1	0.0	100.0	95.6	1,980
2-3	9.5	0.7	80.4	0.2	0.3	0.1	8.9	0.0	100.0	90.6	2,931
4-5	7.2	1.2	73.5	0.2	0.3	0.1	17.1	0.3	100.0	81.9	1,001
6+	5.2	0.5	65.3	1.8	0.1	0.0	26.3	0.6	100.0	71.1	560
Place where received ANC											
Public sector	9.0	0.9	89.9	0.1	0.1	0.0	0.0	0.0	100.0	99.8	5,373
Private sector	39.4	1.8	57.4	0.0	0.0	1.4	0.0	0.0	100.0	98.6	251
Home	5.7	0.6	77.0	11.6	5.1	0.0	0.0	0.0	100.0	83.3	123
Other	38.0	0.5	51.0	0.0	0.0	0.5	0.0	9.9	100.0	89.5	64
No ANC	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	661
Residence											
Urban	34.9	0.3	61.9	0.0	0.0	0.0	3.0	0.0	100.0	97.0	1,050
Rural	4.5	1.0	82.1	0.3	0.3	0.1	11.6	0.1	100.0	87.6	5,421
Province											
Banteay Mean Chey	1.1	0.0	87.1	0.0	0.0	0.0	11.7	0.0	100.0	88.3	243
Kampong Cham	2.6	2.3	83.3	0.0	0.0	0.0	11.4	0.4	100.0	88.1	795
Kampong Chhnang	2.1	0.8	86.6	0.0	0.8	0.3	9.4	0.0	100.0	89.6	285
Kampong Speu	1.2	0.4	88.8	0.7	0.0	0.3	8.7	0.0	100.0	90.3	392
Kampong Thom	3.8	0.1	81.5	0.7	0.0	0.0	13.9	0.0	100.0	85.4	332
Kandal	1.5	1.7	85.8	0.0	0.0	0.0	10.6	0.4	100.0	89.0	628
Kratie	3.3	0.0	61.9	0.3	0.0	0.0	34.5	0.0	100.0	65.2	176
Phnom Penh	67.2	0.0	31.9	0.0	0.0	0.0	0.9	0.0	100.0	99.1	538
Prey Veng	0.6	0.1	91.4	0.0	0.0	0.0	7.9	0.0	100.0	92.1	514
Pursat	6.5	3.8	79.9	0.8	1.8	0.0	7.2	0.0	100.0	90.2	206
Siem Reap	27.6	0.4	64.9	0.9	0.3	0.0	5.9	0.0	100.0	92.9	441
Svay Rieng	5.9	0.4	87.1	0.0	0.0	0.0	6.7	0.0	100.0	93.3	233
Takeo	3.7	1.8	91.2	0.8	0.0	0.0	2.5	0.0	100.0	96.7	417
Otdar Mean Chey	1.2	1.1	88.7	0.0	0.3	0.0	8.6	0.0	100.0	91.1	86
Battambang/Pailin	0.4	0.0	90.7	0.9	1.1	0.5	6.5	0.0	100.0	91.1	451
Kampot/Kep	2.4	0.0	83.5	0.0	0.4	0.0	13.6	0.0	100.0	86.0	296
Preah Sihanouk/Koh Kong	0.9	0.5	86.7	0.0	0.0	0.6	11.4	0.0	100.0	88.1	144
Preah Vihear/Steung Treng	2.2	0.0	64.7	0.0	0.0	0.0	33.1	0.0	100.0	66.9	170
Mondol Kiri/Rattanak Kiri	3.7	1.6	56.5	0.6	0.0	0.3	37.0	0.3	100.0	61.8	124
Mother's education											
No schooling	3.7	0.6	72.3	0.6	0.3	0.1	22.4	0.0	100.0	76.7	1,133
Primary	7.0	1.1	80.9	0.3	0.3	0.1	10.1	0.2	100.0	89.0	3,635
Secondary and higher	18.5	0.4	78.6	0.0	0.0	0.1	2.4	0.0	100.0	97.5	1,703
Wealth quintile											
Lowest	3.2	0.9	74.7	0.7	0.4	0.0	19.7	0.4	100.0	78.8	1,585
Second	4.6	1.0	80.0	0.3	0.2	0.0	13.8	0.0	100.0	85.6	1,380
Middle	4.1	1.1	86.8	0.1	0.2	0.2	7.5	0.0	100.0	92.1	1,229
Fourth	6.5	0.8	87.8	0.2	0.2	0.2	4.4	0.0	100.0	95.1	1,155
Highest	33.0	0.3	65.1	0.0	0.0	0.1	1.5	0.0	100.0	98.5	1,123
Total	9.4	0.9	78.8	0.3	0.2	0.1	10.2	0.1	100.0	89.1	6,472

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, and midwife.

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued throughout pregnancy. Health professionals recommend that the first antenatal visit occur within the first three months of the pregnancy and that visits continue on a monthly basis through week 28 of pregnancy and then each two weeks up to week 36 (or until birth). If the first antenatal visit is made during the third month of pregnancy and then visits occur as regularly as recommended, there will be a total of at least 12 to 13 antenatal visits. Table 12.2 shows that three in five women (59 percent) make four or more antenatal care visits during their entire pregnancy. Table 12.2 includes antenatal care received from any type of provider listed in Table 12.1.

Table 12.2 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, Cambodia 2010

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	3.0	11.7	10.3
1	2.0	5.3	4.8
2-3	14.2	27.2	25.1
4+	80.3	55.3	59.4
Don't know/missing	0.5	0.4	0.5
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	3.0	11.7	10.3
<4	75.2	56.3	59.4
4-5	16.9	23.1	22.1
6-7	4.4	7.2	6.7
8+	0.2	1.6	1.4
Don't know/missing	0.2	0.2	0.2
Total	100.0	100.0	100.0
Number of women	1,050	5,421	6,472
Median months pregnant at first visit (for those with ANC)	2.9	3.5	3.4
Number of women with ANC and information for number of months pregnant for 1st visit	1,017	4,776	5,793

Fifty-nine percent of women make their first antenatal care visit before the fourth month of pregnancy. The median duration of pregnancy at the first antenatal care visit is 3.4 months. This indicates that, overall, women in Cambodia start antenatal care after the first three months of their pregnancy.

12.1.2 Components of Antenatal Care

Apart from receiving basic care, every pregnant woman should be monitored for complications. For that reason, pregnant women should receive information on pregnancy complications or danger signs and be screened for complications at all antenatal care visits. The 2010 CDHS asked respondents a number of questions about the care they received during pregnancy for their most recent live birth in the past five years. Table 12.3 presents information on the content of ANC services, including the percentage of women who took iron tablets and intestinal parasite drugs and the percentage who were informed of the symptoms of pregnancy complications. Eighty percent of mothers who received antenatal care reported that they were informed about pregnancy-related complications during their visits. Blood pressure measurements were part of antenatal care for 91 percent of mothers. Urine and blood samples were taken from 36 and 45 percent of women, respectively. Nine in ten women (89 percent) took iron tablets during pregnancy, and nearly one in two women (45 percent) took intestinal parasite drugs.

Table 12.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Cambodia 2010

Background characteristic	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:			Among women who received antenatal care for their most recent birth in the past five years, the percentage with selected services:					
	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	Number of women with ANC for their most recent birth
Mother's age at birth									
<20	90.8	47.1	555	74.2	92.3	90.5	38.4	41.8	512
20-34	90.8	45.9	4,917	80.3	90.6	90.9	37.4	45.7	4,483
35-49	81.4	36.0	999	82.0	88.3	88.6	29.7	39.3	809
Birth order									
1	95.1	49.1	1,980	79.2	91.6	92.0	43.1	52.4	1,898
2-3	90.2	45.7	2,931	80.7	91.3	91.0	35.8	43.1	2,671
4-5	85.0	38.2	1,001	80.3	88.5	89.6	28.6	38.0	827
6+	72.5	32.9	560	79.0	83.3	83.1	24.9	29.5	409
Residence									
Urban	95.5	38.9	1,050	87.9	97.7	96.0	60.2	71.8	1,019
Rural	88.2	45.6	5,421	78.3	88.9	89.4	31.3	38.6	4,785
Province									
Banteay Mean Chey	88.2	56.5	243	81.7	93.7	84.9	25.8	59.8	214
Kampong Cham	88.1	28.7	795	72.9	85.2	89.7	20.4	29.8	701
Kampong Chhnang	91.5	73.6	285	94.2	89.7	95.1	16.3	24.8	259
Kampong Speu	90.4	61.5	392	83.7	90.3	94.3	33.6	27.8	358
Kampong Thom	84.6	40.6	332	62.9	92.8	82.6	43.3	49.3	286
Kandal	89.9	34.2	628	75.8	89.3	91.8	42.5	30.7	559
Kratie	77.0	50.9	176	87.1	90.4	92.2	5.1	15.9	115
Phnom Penh	98.4	18.3	538	92.0	99.6	97.8	77.7	74.8	534
Prey Veng	92.8	48.5	514	81.4	87.1	87.6	32.6	47.0	473
Pursat	92.3	71.2	206	98.0	94.4	91.3	45.1	47.1	191
Siem Reap	89.1	64.1	441	94.5	99.0	98.8	61.2	71.7	415
Svay Rieng	92.2	38.6	233	62.0	93.9	83.4	35.2	51.4	217
Takeo	93.8	29.5	417	78.2	80.2	88.9	26.8	41.9	407
Otdar Mean Chey	88.6	75.5	86	61.4	88.8	85.6	27.5	42.2	79
Battambang/Pailin	90.5	58.4	451	78.2	93.2	91.2	29.5	58.0	421
Kampot/Kep	86.5	44.4	296	75.2	87.1	89.6	21.2	28.7	256
Preah Sihanouk/Koh Kong	86.2	50.8	144	76.7	90.2	87.1	44.1	50.2	128
Preah Vihear/Steung Treng	77.3	38.6	170	73.2	83.6	81.5	14.0	18.8	114
Mondol Kiri/Rattanak Kiri	65.3	27.8	124	65.7	87.1	75.0	21.1	27.0	77
Mother's education									
No schooling	77.6	38.9	1,133	74.4	86.4	82.2	25.1	33.8	879
Primary	89.5	44.9	3,635	78.8	89.1	90.3	33.5	40.6	3,263
Secondary and higher	96.9	47.3	1,703	85.4	95.3	95.5	48.0	57.7	1,662
Wealth quintile									
Lowest	82.6	40.0	1,585	74.6	86.9	86.8	28.8	36.0	1,267
Second	85.8	44.7	1,380	77.4	87.4	88.4	27.1	33.9	1,190
Middle	91.0	48.5	1,229	81.5	88.6	90.3	31.2	40.7	1,137
Fourth	94.3	50.7	1,155	81.7	93.7	91.8	39.4	44.9	1,104
Highest	96.4	39.9	1,123	85.9	96.4	96.3	57.3	68.9	1,106
Total	89.4	44.5	6,472	80.0	90.5	90.6	36.4	44.5	5,804

Urban-rural differences existed for various components of antenatal care. Urban women were more likely to have been informed of signs of pregnancy complications, to have been weighed and have their blood pressure measured, and to have blood and urine taken for testing. Urban women were also more likely to take iron tablets or syrup but were less likely than rural women to take intestinal parasite drugs. In Kampong Chhnang, Phnom Penh, Pursat, and Siem Reap, more than 90 percent of women had been informed about the signs of pregnancy complications, as compared with 61 percent of women in Otdar Mean Chey and 62 percent of women in Svay Rieng. Antenatal care content was also greatly affected by the mother's educational level. Women with a secondary education or higher were far more likely to have received services than women with no education.

12.1.3 Tetanus Toxoid Vaccinations

Tetanus toxoid (TT) injections are given to women during pregnancy to prevent deaths from neonatal tetanus. Neonatal tetanus can result when sterile procedures are not followed in cutting the umbilical cord after delivery. In the 2010 CDHS, information was collected on the number of doses of TT vaccine the mother received and on the source from which the TT vaccination was received for all births during the five-year period prior to the survey. In addition, questions were included to ascertain

whether mothers received tetanus injections prior to the last birth as a means of determining whether the last birth was fully protected from neonatal tetanus.

Table 12.4 shows the percentage of women with a live birth in the five years preceding the survey who reported receiving TT injections during the pregnancy for the last live birth. Also shown is whether the last birth was fully protected against neonatal tetanus. An infant is considered to be fully protected if any of the following criteria are met: (1) the mother had two tetanus toxoid injections during the pregnancy; (2) the mother had a tetanus toxoid injection during the pregnancy along with an additional injection prior to the pregnancy; or (3) the mother did not have a tetanus toxoid injection during the pregnancy but had at least five injections prior to the pregnancy. According to the 2010 CDHS results, 86 percent of last-born children during the five-year period before the survey were fully protected against neonatal tetanus. This figure is higher than that observed in the 2005 CDHS (69 percent). There were provincial differences in the percentage of last-born children who were fully protected against neonatal tetanus. For example, 97 percent of births in Phnom Penh were fully protected, as compared with 62 percent of births in Mondol Kiri/Rattanak Kiri.

Table 12.4 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, Cambodia 2010

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus[1]	Number of mothers
Mother's age at birth			
<20	64.5	86.1	555
20-34	62.2	87.3	4,917
35-49	50.5	75.2	999
Birth order			
1	72.0	91.1	1,980
2-3	58.7	85.9	2,931
4-5	52.0	81.1	1,001
6+	45.7	69.4	560
Residence			
Urban	69.6	93.8	1,050
Rural	58.9	83.7	5,421
Province			
Banteay Mean Chey	78.2	90.3	243
Kampong Cham	47.7	80.5	795
Kampong Chhnang	46.1	92.8	285
Kampong Speu	61.2	89.2	392
Kampong Thom	58.5	74.5	332
Kandal	63.4	90.4	628
Kratie	57.6	74.9	176
Phnom Penh	75.9	97.4	538
Prey Veng	77.1	89.9	514
Pursat	66.2	88.9	206
Siem Reap	54.2	79.8	441
Svay Rieng	61.2	87.9	233
Takeo	61.0	88.1	417
Otdar Mean Chey	70.0	93.3	86
Battambang/Pailin	57.5	79.6	451
Kampot/Kep	53.6	77.4	296
Preah Sihanouk/Koh Kong	58.5	89.9	144
Preah Vihear/Steung Treng	58.4	77.2	170
Mondol Kiri/Rattanak Kiri	39.1	62.1	124
Mother's education			
No schooling	49.2	72.1	1,133
Primary	60.0	85.5	3,635
Secondary and higher	69.5	93.8	1,703
Wealth quintile			
Lowest	50.8	77.0	1,585
Second	57.6	82.2	1,380
Middle	63.1	85.3	1,229
Fourth	66.0	90.5	1,155
Highest	69.8	95.7	1,123
Total	60.6	85.3	6,472

[1] Includes mothers with two injections during the pregnancy of their last birth or two or more injections (the last within 3 years of the last live birth), three or more injections (the last within 5 years of the last birth), four or more injections (the last within 10 years of the last live birth), or five or more injections prior to the last birth.

For approximately three in five births in the past five years (61 percent), the mother received two or more tetanus toxoid injections. In 2005, only 54 percent of women received two or more doses of tetanus toxoid vaccine.

12.2 CHILDBIRTH AND DELIVERY

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

12.2.1 Place of Delivery

Less than half of births in the five years before the survey were delivered at home, and 54 percent were delivered in a health facility (Table 12.5). The percentage of deliveries occurring in the home has declined over the past decade, from 89 percent of births in 2000 to 78 percent in 2005 and 45 percent in 2010. First births are more likely to be delivered in a health facility (66 percent) than are subsequent births. Children born in urban areas (86 percent) are more likely to be delivered in a health facility than children born in rural areas (48 percent). The proportion of births delivered in a health facility is significantly higher in Phnom Penh (93 percent) than in any of the other provinces (21 percent to 72 percent). There is also a strong association between mother's educational level and place of delivery; only 34 percent of women with no education deliver in a health facility, as compared with 75 percent of women with a secondary education or higher.

Table 12.5 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, Cambodia 2010

Background characteristic	Health facility		Home (respondent's or other)	Other	Missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector						
Mother's age at birth								
<20	47.6	9.8	41.9	0.4	0.3	100.0	57.4	807
20-34	44.1	10.6	44.4	0.6	0.2	100.0	54.8	6,258
35-49	40.1	5.5	53.5	0.2	0.7	100.0	45.6	1,135
Birth order								
1	51.7	13.8	33.4	0.9	0.2	100.0	65.5	2,779
2-3	43.2	9.7	46.6	0.4	0.1	100.0	52.9	3,518
4-5	36.4	5.7	57.2	0.2	0.5	100.0	42.1	1,215
6+	29.3	2.2	67.0	0.2	1.3	100.0	31.5	689
Residence								
Urban	59.2	26.6	13.9	0.1	0.1	100.0	85.8	1,281
Rural	41.1	6.8	51.2	0.6	0.3	100.0	47.8	6,919
Province								
Banteay Mean Chey	44.3	11.4	44.3	0.0	0.0	100.0	55.7	297
Kampong Cham	36.3	9.5	53.4	0.1	0.7	100.0	45.8	1,008
Kampong Chhnang	51.5	2.5	45.5	0.0	0.5	100.0	54.0	380
Kampong Speu	36.9	10.3	52.5	0.3	0.0	100.0	47.3	485
Kampong Thom	32.1	4.0	63.9	0.1	0.0	100.0	36.1	432
Kandal	49.5	15.7	33.9	0.4	0.6	100.0	65.2	809
Kratie	20.8	5.0	74.0	0.2	0.0	100.0	25.8	246
Phnom Penh	66.1	27.2	6.4	0.1	0.2	100.0	93.3	647
Prey Veng	33.5	7.7	58.5	0.4	0.0	100.0	41.1	614
Pursat	43.8	5.0	50.9	0.0	0.2	100.0	48.8	278
Siem Reap	68.0	0.8	30.8	0.4	0.0	100.0	68.8	580
Svay Rieng	43.8	0.8	52.2	3.0	0.2	100.0	44.6	280
Takeo	62.6	9.1	27.8	0.0	0.5	100.0	71.6	522
Otdar Mean Chey	54.3	3.0	42.5	0.1	0.1	100.0	57.3	105
Battambang/Pailin	38.0	13.5	46.9	1.0	0.6	100.0	51.5	575
Kampot/Kep	28.8	13.4	54.3	3.5	0.0	100.0	42.2	365
Preah Sihanouk/Koh Kong	39.5	17.1	42.2	0.9	0.3	100.0	56.6	181
Preah Vihear/Steung Treng	18.8	2.4	78.4	0.4	0.0	100.0	21.2	226
Mondol Kiri/Rattanak Kiri	27.2	3.0	67.9	1.0	0.9	100.0	30.1	171
Mother's education								
No schooling	31.0	3.0	65.4	0.3	0.4	100.0	33.9	1,522
Primary	44.4	6.6	48.2	0.5	0.3	100.0	51.0	4,638
Secondary and higher	52.5	22.4	24.1	0.6	0.3	100.0	74.9	2,040
Antenatal care visits[1]								
None	12.3	3.3	83.3	0.1	1.0	100.0	15.7	668
1-3	35.2	7.9	56.4	0.5	0.0	100.0	43.1	1,933
4+	58.2	12.5	28.8	0.4	0.0	100.0	70.7	3,842
Don't know/missing	37.2	30.2	32.6	0.0	0.0	100.0	67.4	30
Wealth quintile								
Lowest	32.4	2.1	64.6	0.2	0.7	100.0	34.5	2,182
Second	40.1	3.7	55.6	0.4	0.2	100.0	43.8	1,762
Middle	44.3	7.6	47.4	0.6	0.2	100.0	51.9	1,492
Fourth	52.8	13.0	33.4	0.7	0.1	100.0	65.8	1,418
Highest	57.7	29.7	11.5	0.9	0.1	100.0	87.5	1,346
Total	43.9	9.9	45.4	0.5	0.3	100.0	53.8	8,200

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

12.2.2 Assistance at Delivery

Obstetric care by a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Table 12.6 shows the percent distribution of births in the five years preceding the survey by the person providing assistance at delivery, the percentage of births attended by a skilled health worker, and the percentage of births delivered by cesarean section, according to background characteristics. Seventy-one percent of births are delivered with the assistance of a trained health professional (i.e., a doctor, nurse, or midwife), an increase from 44 percent in 2005. Only 28 percent are delivered with the assistance of a traditional birth attendant. First births are more likely to be assisted by a trained health professional (80 percent) than subsequent births.

Table 12.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and percentage delivered by cesarean section, according to background characteristics, Cambodia 2010

Background characteristic	Person providing assistance during delivery								Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
	Doctor	Nurse	Midwife	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total			
Mother's age at birth											
<20	10.2	0.5	62.4	25.8	0.0	0.3	0.8	100.0	73.1	3.1	807
20-34	12.6	0.5	59.2	27.1	0.3	0.1	0.3	100.0	72.2	2.9	6,258
35-49	11.2	0.4	51.3	35.9	0.5	0.1	0.5	100.0	63.0	3.1	1,135
Birth order											
1	15.1	0.5	64.8	19.0	0.2	0.1	0.4	100.0	80.4	4.2	2,779
2-3	11.6	0.5	59.9	27.3	0.3	0.2	0.2	100.0	72.1	2.7	3,518
4-5	9.6	0.1	49.0	40.5	0.3	0.1	0.4	100.0	58.7	2.0	1,215
6+	7.4	0.5	41.6	48.6	0.5	0.3	1.1	100.0	49.6	1.3	689
Place of delivery											
Health facility	21.9	0.7	76.9	0.1	0.2	0.0	0.1	100.0	99.6	5.5	4,409
Elsewhere	0.8	0.1	37.1	61.3	0.4	0.2	0.0	100.0	38.0	0.0	3,766
Missing	0.0	0.0	6.5	1.7	0.0	3.8	87.9	100.0	6.5	0.0	25
Residence											
Urban	41.8	0.2	52.8	5.0	0.1	0.0	0.2	100.0	94.7	8.2	1,281
Rural	6.7	0.5	59.4	32.5	0.3	0.1	0.4	100.0	66.6	2.0	6,919
Province											
Banteay Mean Chey	4.4	0.0	64.5	30.6	0.0	0.4	0.0	100.0	69.0	2.7	297
Kampong Cham	13.2	0.2	54.5	30.9	0.3	0.3	0.7	100.0	67.9	2.9	1,008
Kampong Chhnang	4.3	0.2	55.3	38.8	0.9	0.3	0.2	100.0	59.8	1.5	380
Kampong Speu	2.2	0.0	66.1	31.8	0.0	0.0	0.0	100.0	68.2	1.1	485
Kampong Thom	10.3	0.1	37.3	52.3	0.0	0.0	0.0	100.0	47.7	2.0	432
Kandal	7.0	0.7	79.3	11.1	0.8	0.3	0.9	100.0	87.0	3.2	809
Kratie	2.6	0.2	41.5	55.2	0.2	0.0	0.3	100.0	44.4	1.5	246
Phnom Penh	73.2	0.0	25.5	0.9	0.0	0.0	0.3	100.0	98.8	9.9	647
Prey Veng	1.4	0.0	57.8	40.8	0.0	0.0	0.0	100.0	59.2	4.7	614
Pursat	5.0	0.9	67.9	25.9	0.0	0.0	0.2	100.0	73.9	2.1	278
Siem Reap	21.5	0.6	50.6	27.3	0.0	0.0	0.0	100.0	72.7	1.7	580
Svay Rieng	5.5	0.6	83.4	10.2	0.0	0.0	0.2	100.0	89.6	1.4	280
Takeo	4.0	2.7	78.7	13.4	0.0	0.0	1.2	100.0	85.4	0.8	522
Otdar Mean Chey	3.9	3.5	57.0	35.3	0.0	0.2	0.1	100.0	64.4	2.2	105
Battambang/Pailin	2.1	0.0	76.0	20.9	0.3	0.4	0.3	100.0	78.1	3.0	575
Kampot/Kep	7.1	0.3	59.1	31.7	1.7	0.0	0.0	100.0	66.5	1.8	365
Preah Sihanouk/Koh Kong	2.2	0.2	76.8	20.5	0.0	0.0	0.3	100.0	79.2	4.4	181
Preah Vihear/Steung Treng	3.5	0.0	24.8	71.8	0.0	0.0	0.0	100.0	28.2	0.9	226
Mondol Kiri/Rattanak Kiri	3.5	0.3	34.6	59.6	0.7	0.7	0.7	100.0	38.4	2.5	171
Mother's education											
No schooling	6.1	0.2	40.6	52.3	0.3	0.1	0.4	100.0	46.9	1.2	1,522
Primary	8.9	0.7	60.8	28.8	0.3	0.2	0.3	100.0	70.4	2.1	4,638
Secondary and higher	24.0	0.2	66.3	8.9	0.2	0.0	0.3	100.0	90.5	6.3	2,040
Wealth quintile											
Lowest	3.6	0.6	44.4	49.9	0.4	0.2	0.8	100.0	48.7	1.1	2,182
Second	5.3	0.9	57.5	35.9	0.1	0.2	0.1	100.0	63.7	1.9	1,762
Middle	6.4	0.3	67.9	24.6	0.5	0.0	0.4	100.0	74.5	1.3	1,492
Fourth	11.1	0.2	75.2	13.0	0.3	0.0	0.2	100.0	86.5	2.7	1,418
Highest	42.6	0.2	54.0	3.1	0.0	0.0	0.2	100.0	96.7	9.6	1,346
Total	12.2	0.5	58.4	28.2	0.3	0.1	0.4	100.0	71.0	3.0	8,200

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, and midwife.

Urban women are more likely (95 percent) to receive assistance from a trained health professional during childbirth than rural women (67 percent). Conversely, rural women are more likely (33 percent) than urban women (5 percent) to receive assistance during birth from a traditional birth attendant. Virtually all births (99 percent) in Phnom Penh are assisted by a trained health professional. By contrast, in many provinces, the proportion of births assisted by a trained health professional is low. For example, 28 percent of births in Preah Vihear/Steung Treng and 38 percent of births in Mondol Kiri/Rattanak Kiri are assisted by a trained health professional. As expected, mother's education has an impact on delivery care. Women with a primary school education (70 percent) and women with a secondary education or higher (91 percent) are more likely than women with no education (47 percent) to receive assistance from a health professional during childbirth.

12.3 POSTNATAL CARE AND PRACTICES

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Safe motherhood programs have recently increased their emphasis on the importance of

postnatal care, recommending that all women receive a health checkup within two days of delivery. To assess the extent of postnatal care utilization, respondents who had given birth in the five years preceding the survey were asked whether they had received a health check after the delivery of their last birth. Table 12.7 shows the timing of the first postnatal checkup for women giving birth in the past five years.

Table 12.7 Timing of first postnatal checkup

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, according to background characteristics, Cambodia 2010

Background characteristic	Time after delivery of mother's first postnatal checkup							Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/ missing	No postnatal checkup[1]	Total	
Mother's age at birth								
<20	54.4	8.8	11.1	1.9	0.7	23.2	100.0	555
20-34	54.7	8.0	9.4	2.4	0.7	24.9	100.0	4,917
35-49	48.8	5.5	6.6	3.6	0.1	35.4	100.0	999
Birth order								
1	59.1	9.6	9.7	1.7	0.7	19.3	100.0	1,980
2-3	54.4	7.5	10.1	2.8	0.5	24.8	100.0	2,931
4-5	50.0	6.4	7.4	2.8	0.4	33.0	100.0	1,001
6+	38.3	3.9	5.2	3.5	0.9	48.3	100.0	560
Place of delivery								
Health facility	72.3	9.6	9.1	0.8	0.7	7.5	100.0	3,675
Elsewhere	29.5	5.0	9.1	4.7	0.5	51.1	100.0	2,790
Missing	0.0	0.0	0.0	0.0	0.0	100.0	100.0	6
Residence								
Urban	69.2	7.7	12.5	1.1	0.7	8.8	100.0	1,050
Rural	50.7	7.6	8.5	2.8	0.6	29.8	100.0	5,421
Province								
Banteay Mean Chey	67.0	0.6	6.4	0.0	0.5	25.5	100.0	243
Kampong Cham	57.9	14.1	6.9	4.3	1.2	15.7	100.0	795
Kampong Chhnang	61.5	1.7	2.1	2.7	0.0	32.1	100.0	285
Kampong Speu	89.8	1.1	1.7	1.6	0.3	5.5	100.0	392
Kampong Thom	44.0	4.5	14.4	4.3	0.0	32.8	100.0	332
Kandal	38.8	13.5	12.8	2.5	0.3	32.1	100.0	628
Kratie	15.3	2.8	1.1	0.9	0.6	79.4	100.0	176
Phnom Penh	73.6	7.6	15.6	0.3	0.4	2.5	100.0	538
Prey Veng	45.4	4.6	4.8	2.8	0.3	42.0	100.0	514
Pursat	47.2	1.4	8.2	4.2	0.0	39.0	100.0	206
Siem Reap	78.5	8.4	5.0	0.9	0.0	7.1	100.0	441
Svay Rieng	46.1	4.1	9.2	4.7	0.0	35.8	100.0	233
Takeo	63.6	7.4	11.3	1.9	0.8	15.0	100.0	417
Otdar Mean Chey	24.1	3.6	17.4	1.4	0.3	53.2	100.0	86
Battambang/Pailin	46.3	15.5	7.3	1.7	2.3	27.0	100.0	451
Kampot/Kep	40.8	9.5	26.9	5.0	0.5	17.3	100.0	296
Preah Sihanouk/Koh Kong	46.5	9.4	12.2	3.2	0.4	28.2	100.0	144
Preah Vihear/Steung Treng	14.4	2.0	6.7	3.1	1.3	72.4	100.0	170
Mondol Kiri/Rattanak Kiri	19.3	4.1	3.3	1.8	0.4	71.0	100.0	124
Education								
No schooling	38.7	6.3	6.6	3.6	0.3	44.6	100.0	1,133
Primary	52.7	6.8	10.0	2.7	0.5	27.4	100.0	3,635
Secondary and higher	66.1	10.3	8.9	1.5	1.0	12.2	100.0	1,703
Wealth quintile								
Lowest	41.4	5.7	7.3	3.8	0.4	41.5	100.0	1,585
Second	49.1	6.0	8.8	2.7	0.8	32.6	100.0	1,380
Middle	55.3	7.7	8.1	2.2	0.3	26.4	100.0	1,229
Fourth	59.4	10.2	9.3	2.1	0.5	18.5	100.0	1,155
Highest	69.4	9.8	12.9	1.3	1.1	5.5	100.0	1,123
Total	53.7	7.6	9.1	2.5	0.6	26.4	100.0	6,472

[1] Includes women who received a checkup after 41 days

Twenty-six percent of mothers received no postnatal care. Seventy percent of mothers received postnatal care within the crucial first two days of delivery, with 54 percent receiving care within four hours of delivery. Urban women were more likely to receive postnatal care (89 percent) than rural women (67 percent) during the first two days after delivery. Women with a secondary education or higher (85 percent) were more likely to receive postnatal care within two days of

delivery than women with either no schooling (52 percent) or only a primary school education (70 percent). Approximately half of women (51 percent) who did not deliver in a health facility did not receive a postnatal checkup.

Table 12.8 presents information on the provider of postnatal care for women who delivered in the five years preceding the survey. Sixty-five percent of women received postnatal care from a health professional (midwife, doctor, or nurse), and only 9 percent received postnatal care from traditional birth attendants. Women in urban areas (90 percent) were more likely than those in rural areas (60 percent) to receive postnatal care from a health professional. Similarly, mothers with a secondary education or higher (84 percent) were much more likely to receive postnatal care from a trained health professional than women with either no schooling (41 percent) or only a primary school education (63 percent).

Table 12.8 Type of provider of first postnatal checkup

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 health check for the last live birth, according to background characteristics, Cambodia 2010

Background characteristic	Type of health provider of mother's first postnatal checkup								
	Doctor	Nurse	Midwife	Traditional birth attendant	Other	Don't know/ missing	No postnatal checkup[1]	Total	Number of women
Mother's age at birth									
<20	9.1	1.3	58.4	7.8	0.2	0.0	23.2	100.0	555
20-34	13.6	0.6	52.3	8.3	0.2	0.1	24.9	100.0	4,917
35-49	10.2	0.5	44.0	9.6	0.2	0.0	35.4	100.0	999
Birth order									
1	16.8	0.6	57.3	5.7	0.2	0.1	19.3	100.0	1,980
2-3	12.0	0.7	53.8	8.6	0.2	0.0	24.8	100.0	2,931
4-5	10.1	0.3	44.0	12.3	0.3	0.0	33.0	100.0	1,001
6+	6.2	0.7	33.4	11.1	0.4	0.0	48.3	100.0	560
Place of delivery									
Health facility	21.1	0.8	70.3	0.1	0.1	0.1	7.5	100.0	3,675
Elsewhere	1.5	0.4	27.0	19.5	0.3	0.0	51.1	100.0	2,790
Residence									
Urban	45.1	0.4	44.0	1.6	0.1	0.0	8.8	100.0	1,050
Rural	6.4	0.7	53.0	9.8	0.3	0.0	29.8	100.0	5,421
Province									
Banteay Mean Chey	4.6	0.2	57.8	11.8	0.0	0.1	25.5	100.0	243
Kampong Cham	8.0	0.4	59.5	16.4	0.0	0.0	15.7	100.0	795
Kampong Chhnang	4.5	0.0	60.8	2.1	0.5	0.0	32.1	100.0	285
Kampong Speu	2.9	0.0	70.5	21.1	0.0	0.0	5.5	100.0	392
Kampong Thom	8.9	1.4	40.3	16.6	0.0	0.0	32.8	100.0	332
Kandal	5.1	0.3	59.9	1.6	0.9	0.0	32.1	100.0	628
Kratie	2.6	0.6	17.5	0.0	0.0	0.0	79.4	100.0	176
Phnom Penh	81.1	0.3	15.3	0.8	0.0	0.0	2.5	100.0	538
Prey Veng	5.7	0.7	47.2	4.4	0.0	0.0	42.0	100.0	514
Pursat	6.5	3.9	50.1	0.4	0.1	0.0	39.0	100.0	206
Siem Reap	13.3	0.4	64.4	14.4	0.0	0.3	7.1	100.0	441
Svay Rieng	6.0	1.1	55.8	0.8	0.4	0.0	35.8	100.0	233
Takeo	10.0	0.3	68.1	6.3	0.0	0.3	15.0	100.0	417
Otdar Mean Chey	3.7	3.1	38.8	1.3	0.0	0.0	53.2	100.0	86
Battambang/Pailin	5.4	0.0	57.8	9.9	0.0	0.0	27.0	100.0	451
Kampot/Kep	4.4	0.0	58.6	17.8	1.9	0.0	17.3	100.0	296
Preah Sihanouk/Koh Kong	6.5	3.0	59.9	2.0	0.3	0.1	28.2	100.0	144
Preah Vihear/Steung Treng	2.4	0.9	16.4	7.9	0.0	0.0	72.4	100.0	170
Mondol Kiri/Rattanak Kiri	5.2	1.9	21.1	0.7	0.0	0.0	71.0	100.0	124
Education									
No schooling	4.7	0.2	36.1	14.1	0.2	0.1	44.6	100.0	1,133
Primary	8.6	0.7	53.9	9.1	0.3	0.0	27.4	100.0	3,635
Secondary and higher	26.7	0.7	56.9	3.5	0.1	0.1	12.2	100.0	1,703
Wealth quintile									
Lowest	3.1	0.8	40.1	14.3	0.2	0.0	41.5	100.0	1,585
Second	5.1	0.7	50.4	11.0	0.1	0.1	32.6	100.0	1,380
Middle	6.3	0.2	58.3	8.4	0.3	0.0	26.4	100.0	1,229
Fourth	9.8	0.9	66.2	4.1	0.4	0.0	18.5	100.0	1,155
Highest	45.3	0.4	46.9	1.7	0.1	0.2	5.5	100.0	1,123
Total	12.7	0.6	51.6	8.5	0.2	0.0	26.4	100.0	6,472

[1] Includes women who received a checkup after 41 days

12.4 PERCEIVED PROBLEMS IN ACCESSING WOMEN'S HEALTH CARE

Many different factors can prevent women from getting medical advice or treatment for themselves. In the 2010 CDHS, women were asked about various problems they face in accessing health care. Table 12.9 shows that 72 percent of women reported having one or more problems in accessing health care for themselves.

Table 12.9 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, Cambodia 2010

Background characteristic	Problems in accessing health care					
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
Age						
15-19	39.6	69.1	38.9	53.7	77.7	3,734
20-34	31.1	62.7	34.2	36.6	69.3	8,584
35-49	30.9	65.8	36.8	35.8	70.8	6,437
Number of living children						
0	38.4	66.4	37.4	48.4	73.9	6,810
1-2	28.6	61.2	33.1	34.0	67.4	6,107
3-4	29.8	65.4	35.5	33.6	71.1	3,965
5+	31.7	71.8	42.0	40.0	76.8	1,871
Marital status						
Never married	39.2	67.2	37.6	49.9	74.8	5,783
Married or living together	29.7	63.5	35.0	35.3	69.7	11,626
Divorced/separated/widowed	30.6	68.7	38.5	34.5	73.3	1,345
Employed in past 12 months						
Not employed	32.7	64.9	33.8	42.4	72.2	3,612
Employed for cash	30.8	61.2	32.8	35.4	67.6	11,206
Employed not for cash	38.2	76.1	47.5	49.7	81.9	3,929
Missing	73.0	84.0	56.3	80.6	84.0	7
Residence						
Urban	30.9	51.7	24.9	32.8	58.7	3,936
Rural	33.2	68.6	39.0	41.6	74.9	14,818
Province						
Banteay Mean Chey	58.8	77.9	64.3	67.6	89.6	719
Kampong Cham	13.4	62.1	21.6	30.0	69.9	2,111
Kampong Chhnang	59.0	80.8	40.8	49.1	83.7	739
Kampong Speu	21.9	88.9	40.4	45.5	91.6	1,060
Kampong Thom	50.1	54.2	50.8	57.8	69.3	935
Kandal	9.8	44.7	10.8	14.9	47.4	1,920
Kratie	27.4	56.7	18.4	34.8	61.5	438
Phnom Penh	36.6	47.5	27.7	35.8	54.7	2,183
Prey Veng	23.0	30.9	30.3	31.9	38.3	1,341
Pursat	39.4	97.4	37.0	33.6	98.2	534
Siem Reap	51.7	67.0	35.8	26.2	79.4	1,233
Svay Rieng	50.0	89.8	74.0	72.6	91.4	753
Takeo	57.7	79.3	34.0	37.5	84.1	1,175
Otdar Mean Chey	28.6	75.4	60.0	51.2	78.4	252
Battambang/Pailin	25.6	66.7	38.3	45.3	76.3	1,320
Kampot/Kep	33.4	83.2	42.6	51.6	88.0	891
Preah Sihanouk/Koh Kong	15.1	83.6	55.5	46.2	88.4	439
Preah Vihear/Steung Treng	27.5	88.9	67.8	56.4	91.4	430
Mondol Kiri/Rattanak Kiri	31.1	73.4	62.1	62.9	76.8	281
Education						
No schooling	35.9	76.6	49.6	48.2	81.3	2,973
Primary	34.3	68.1	38.6	40.4	74.6	9,265
Secondary and higher	29.2	55.5	26.3	34.9	62.6	6,516
Wealth quintile						
Lowest	39.7	79.0	51.9	50.6	84.3	3,388
Second	36.0	73.7	44.7	45.5	79.7	3,516
Middle	35.2	68.9	37.9	41.3	75.4	3,594
Fourth	28.0	61.2	27.9	33.7	68.0	3,827
Highest	26.9	47.7	22.6	30.8	55.0	4,428
Total	32.7	65.0	36.1	39.7	71.5	18,754

The most frequently cited problem in accessing health care was not having money for treatment (65 percent). One-third of women reported problems in getting permission to go to a health facility (33 percent), and two in five (40 percent) did not want to go to the facility alone. Thirty-six percent of women cited distance to the health facility as a problem. As expected, rural women were more likely than urban women to have problems related to distance to a health facility and getting money for treatment. Women with no education and women in the lowest wealth quintile were more likely to have problems related to lack of money for treatment.

CHILD HEALTH 13

This chapter presents findings on several areas of importance to child health: characteristics of the neonate (birth weight and size at birth), vaccination status of children, and important childhood illnesses and their treatment. Information on birth weight and birth size is important for the design and implementation of programs aimed at reducing neonatal and infant mortality. Many early childhood deaths can be prevented by immunizing children against preventable diseases and by ensuring that children receive prompt and appropriate treatment when they become ill.

13.1 CHILD'S SIZE AT BIRTH

Birth weight is one of the major determinants of infant and child health and mortality. 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 2010 Cambodia Demographic and Health Survey (CDHS), birth weight was recorded in the questionnaire if available 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 the baby's size at birth was also obtained. Even though such an estimate is subjective, it can be a useful proxy for the weight of the child. Table 13.1 presents information on child's size at birth according to background characteristics.

Table 13.1 shows that 72 percent of babies were weighed at birth; this represents a significant increase since the 2005 CDHS, which reported that only 40 percent of babies were weighed at birth. Among those births for which the mother was able to report the baby's weight, 8 percent were classified as low birth weight (less than 2.5 kilograms at birth), which is similar to the 2005 CDHS findings. Low birth weight was more common among children of birth order six or higher (12 percent) and first-born children (10 percent) than among children of birth orders two through five (6 to 9 percent). Children born to mothers who smoke were more likely to be of low birth weight (12 percent) than children born to mothers who do not smoke (8 percent). The proportion of low birth weight births varied somewhat across provinces (from 5 to 12 percent). However, the proportion with a reported birth weight varied drastically, from a low of 38 percent in Mondol Kiri/Rattanak Kiri to a high of 96 percent in Phnom Penh.

Table 13.1 also includes information on the mother's assessment of the baby's size at birth. In the absence of birth weight, a mother's subjective assessment of the size of the baby at birth may be useful. However, this assessment may vary among respondents because it is based on the mother's own perception of what is small, average, or large for a baby and not on a uniform definition. Eighty-five percent of infants were considered by their mothers to be average or larger than average in size. Nine percent were perceived as smaller than average, and 3 percent were considered very small. For about 4 percent of births, the mothers did not remember the size of their baby at birth.

Table 13.1 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, Cambodia 2010

Background characteristic	Percent distribution of births with a reported birth weight[1]			Number of births	Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth					Number of births
	Less than 2.5 kg	2.5 kg or more	Total			Very small	Smaller than average	Average or larger	Don't know/ missing	Total	
Mother's age at birth											
<20	9.7	90.3	100.0	608	75.4	4.5	8.2	83.7	3.7	100.0	807
20-34	7.5	92.5	100.0	4,609	73.6	2.3	8.8	85.6	3.3	100.0	6,258
35-49	11.1	88.9	100.0	712	62.7	4.7	7.5	81.4	6.5	100.0	1,135
Birth order											
1	9.5	90.5	100.0	2,276	81.9	3.4	9.9	84.4	2.3	100.0	2,779
2-3	6.3	93.7	100.0	2,560	72.8	2.1	7.6	86.8	3.5	100.0	3,518
4-5	8.7	91.3	100.0	748	61.6	3.1	6.7	85.3	5.0	100.0	1,215
6+	12.1	87.9	100.0	345	50.0	4.3	11.2	75.5	9.0	100.0	689
Mother's smoking status											
Smokes cigarettes/tobacco	11.9	88.1	100.0	113	47.8	0.9	15.6	73.6	9.9	100.0	237
Does not smoke	8.1	91.9	100.0	5,815	73.0	2.9	8.3	85.1	3.6	100.0	7,962
Residence											
Urban	5.3	94.7	100.0	1,194	93.2	1.8	6.4	91.1	0.8	100.0	1,281
Rural	8.9	91.1	100.0	4,736	68.4	3.0	9.0	83.7	4.3	100.0	6,919
Province											
Banteay Mean Chey	8.4	91.6	100.0	205	68.9	9.2	9.4	78.9	2.5	100.0	297
Kampong Cham	10.1	89.9	100.0	816	81.0	6.0	10.8	79.4	3.9	100.0	1,008
Kampong Chhnang	7.6	92.4	100.0	237	62.4	0.2	2.5	96.6	0.7	100.0	380
Kampong Speu	5.0	95.0	100.0	295	60.8	5.3	6.7	87.7	0.3	100.0	485
Kampong Thom	10.1	89.9	100.0	255	58.9	3.6	7.2	77.7	11.5	100.0	432
Kandal	7.7	92.3	100.0	669	82.8	1.9	9.2	87.4	1.6	100.0	809
Kratie	6.9	93.1	100.0	174	70.8	1.9	11.7	83.5	3.0	100.0	246
Phnom Penh	5.6	94.4	100.0	618	95.6	1.3	4.2	93.6	0.9	100.0	647
Prey Veng	7.4	92.6	100.0	482	78.5	0.3	9.7	89.1	0.9	100.0	614
Pursat	5.6	94.4	100.0	217	78.1	1.6	16.8	81.3	0.3	100.0	278
Siem Reap	8.1	91.9	100.0	416	71.7	1.4	12.2	85.6	0.8	100.0	580
Svay Rieng	8.7	91.3	100.0	203	72.4	6.4	5.2	87.9	0.6	100.0	280
Takeo	12.4	87.6	100.0	383	73.5	1.1	1.7	85.4	11.8	100.0	522
Otdar Mean Chey	4.8	95.2	100.0	70	66.7	2.1	16.2	73.7	8.0	100.0	105
Battambang/Pailin	10.3	89.7	100.0	379	65.9	3.8	13.1	80.6	2.5	100.0	575
Kampot/Kep	7.4	92.6	100.0	211	57.7	1.1	3.3	81.0	14.6	100.0	365
Preah Sihanouk/Koh Kong	5.9	94.1	100.0	145	79.7	3.6	16.6	79.5	0.3	100.0	181
Preah Vihear/Steung Treng	10.2	89.8	100.0	90	39.9	1.0	3.5	81.8	13.7	100.0	226
Mondol Kiri/Rattanak Kiri	8.9	91.1	100.0	65	38.0	0.8	10.8	87.1	1.3	100.0	171
Mother's education											
No schooling	8.8	91.2	100.0	790	51.9	3.3	10.3	79.2	7.2	100.0	1,522
Primary	9.0	91.0	100.0	3,303	71.2	3.2	8.2	85.0	3.6	100.0	4,638
Secondary and higher	6.4	93.6	100.0	1,837	90.0	1.8	7.9	88.7	1.6	100.0	2,040
Wealth quintile											
Lowest	10.3	89.7	100.0	1,226	56.2	3.5	9.9	80.2	6.4	100.0	2,182
Second	10.2	89.8	100.0	1,119	63.5	3.6	9.0	83.0	4.4	100.0	1,762
Middle	8.5	91.5	100.0	1,104	74.0	2.7	8.5	85.2	3.6	100.0	1,492
Fourth	7.1	92.9	100.0	1,191	84.0	2.4	7.4	87.9	2.2	100.0	1,418
Highest	5.2	94.8	100.0	1,288	95.7	1.4	7.1	90.9	0.5	100.0	1,346
Total	8.2	91.8	100.0	5,929	72.3	2.9	8.5	84.8	3.8	100.0	8,200

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

13.2 IMMUNIZATION OF CHILDREN

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

Similar to the 2000 and 2005 CDHS, the 2010 CDHS collected information on vaccination coverage for all living children born in the five years preceding the survey. Guidelines developed by the World Health Organization define children as fully vaccinated when they have received a vaccination against tuberculosis (BCG); three doses each of the 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 4, 8, and

12 weeks of age. Measles should be given at or soon after 9 months of age. In 2006, the Cambodian National Immunization Program replaced the DPT vaccine with a tetravalent vaccine that includes DPT and *Haemophilus influenzae* type b vaccine (Hib) and a pentavalent vaccine that includes DPT, Hib, and hepatitis B vaccine (HepB). The program also administers HepB vaccine at birth or at first clinical contact (HB 0).

Information on vaccination coverage was collected in two ways: from vaccination cards shown to the interviewer and from mothers' verbal reports. If 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 vaccines given to her child. The top three rows of Table 13.2 show the percentage of children age 12-23 months who have received various vaccinations by source of information, that is, from the vaccination card or a mother's report.

Table 13.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Cambodia 2010

Source of information	BCG	Tetravalent/pentavalent 1	2	3	HB 0[1]	Polio 1	2	3	Measles	All basic vaccinations[2]	No vaccinations	Number of children
Vaccinated at any time before survey												
Vaccination card	77.1	75.6	74.1	70.9	60.9	75.6	74.3	70.8	66.8	66.1	0.0	1,249
Mother's report	17.3	17.6	16.1	14.0	12.0	17.9	16.4	14.2	15.0	12.7	3.9	364
Either source	94.3	93.1	90.2	84.8	73.0	93.6	90.6	85.0	81.9	78.8	3.9	1,614
Vaccinated by 12 months of age[3]	94.2	92.6	89.2	83.6	73.0	93.0	89.6	83.8	77.0	73.6	3.9	1,614

[1] HB 0 is a hepatitis B vaccine given at birth.
[2] BCG, measles, and three doses each of tetravalent or pentavalent and polio vaccine
[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.

The last row of Table 13.2 shows that three-quarters of children (74 percent) age 12-23 months were fully vaccinated by 12 months of age. Nearly all children had received the BCG vaccination and the first two doses of tetravalent/pentavalent vaccine or polio vaccine (89 percent to 94 percent), and 77 percent had been vaccinated against measles. Because the tetravalent/pentavalent and polio vaccines are often administered at the same time, their coverage rates are similar. Eighty-four percent of children received the third doses of tetravalent/pentavalent and polio vaccines.

Table 13.3 shows vaccination coverage among children age 12-23 months by background characteristics. This information may give some indication of the success of the immunization program in reaching out to all population subgroups. The vaccination coverage rates of male and female children are practically the same. More children in urban than rural areas are fully vaccinated. Also, there are substantial differences in coverage across provinces. The percentage of children fully vaccinated is lowest in Mondol Kiri/Rattanak Kiri (28 percent) and Kampot/Kep (57 percent). The provinces with the highest proportion of children fully vaccinated are Banteay Mean Chey (93 percent), Siem Reap (89 percent), Kampong Speu (89 percent), Kampong Cham (85 percent), and Phnom Penh (84 percent).

The percentage of children fully vaccinated increases substantially with mother's educational level. Children of mothers with a secondary education or higher are much more likely to be fully vaccinated (88 percent) than children whose mothers have no schooling (58 percent). The percentage of children fully vaccinated also increases according to the wealth of the household; children living in the wealthiest households are more likely to be fully vaccinated (88 percent) than children from the poorest households (65 percent).

Table 13.3 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, Cambodia 2010

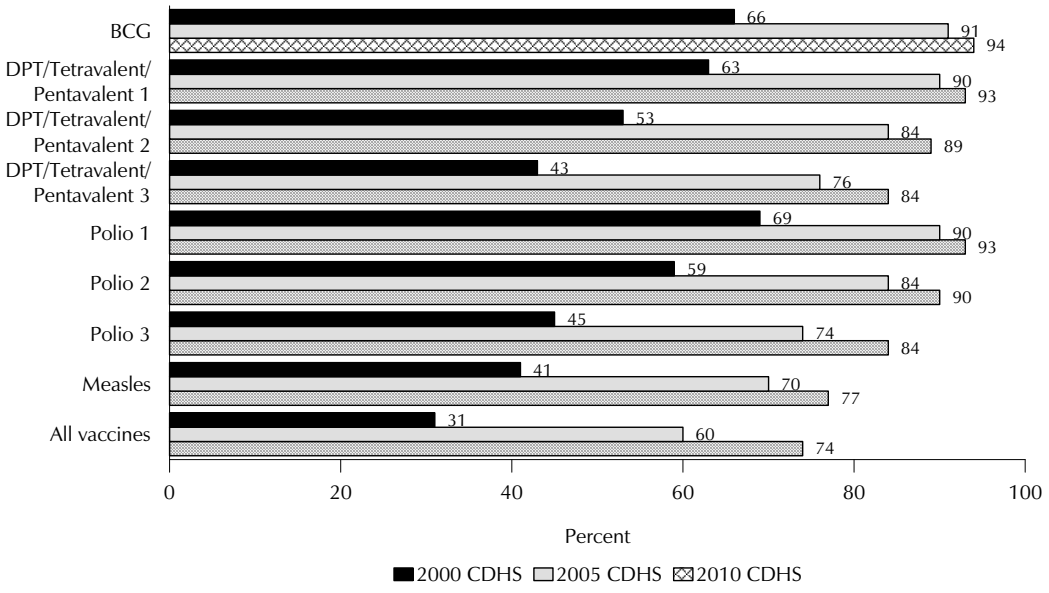
Background characteristic	BCG	Tetravalent/pentavalent 1	Tetravalent/pentavalent 2	Tetravalent/pentavalent 3	HB 0[1]	Polio 1	Polio 2	Polio 3	Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
Sex													
Male	94.5	93.9	90.7	84.6	72.5	94.6	91.4	84.7	80.5	77.1	3.2	79.3	823
Female	94.1	92.4	89.6	85.1	73.5	92.5	89.9	85.4	83.2	80.5	4.7	75.4	791
Birth order													
1	96.2	96.1	93.7	89.1	77.3	96.4	93.9	89.4	86.0	83.8	2.4	82.3	584
2-3	94.5	92.9	90.7	85.9	73.2	93.1	91.5	85.8	83.4	79.2	3.6	76.0	731
4-5	91.2	90.3	86.2	77.9	68.1	91.0	86.6	79.4	72.9	70.9	6.3	70.9	202
6+	88.1	83.1	73.4	64.7	56.0	85.5	73.2	64.4	63.7	61.8	10.6	72.9	97
Residence													
Urban	97.1	95.1	93.6	90.4	89.9	95.2	94.0	90.6	86.5	85.5	2.6	77.1	278
Rural	93.8	92.7	89.5	83.7	69.5	93.2	89.9	83.9	80.9	77.4	4.2	77.5	1,335
Province													
Banteay Mean Chey	100.0	97.9	97.3	95.6	79.9	97.9	97.3	95.6	95.1	93.0	0.0	87.9	63
Kampong Cham	95.6	97.6	96.5	89.9	85.7	97.6	96.5	91.9	87.9	85.4	1.0	81.4	165
Kampong Chhnang	95.5	93.4	87.0	81.7	73.6	93.4	87.0	81.7	78.5	76.0	4.5	72.8	63
Kampong Speu	94.7	97.5	92.9	91.9	78.4	97.5	93.2	91.9	89.1	89.1	2.5	76.2	104
Kampong Thom	95.3	90.8	87.2	76.7	57.0	90.8	87.2	76.7	77.9	74.6	4.7	80.4	69
Kandal	99.5	95.8	94.7	85.9	75.1	95.8	95.8	84.8	80.4	77.1	0.5	95.1	161
Kratie	84.5	85.7	82.0	73.9	57.8	83.4	80.9	73.9	73.9	71.4	13.0	62.8	46
Phnom Penh	96.6	93.7	92.1	90.2	91.5	93.7	92.1	90.2	84.2	84.2	3.4	76.6	148
Prey Veng	90.3	89.6	87.2	84.7	47.5	88.7	87.2	84.7	76.2	76.2	8.8	71.5	135
Pursat	95.2	92.5	86.9	79.5	75.2	93.9	89.8	80.8	83.8	73.6	1.5	66.2	54
Siem Reap	96.7	97.4	94.2	94.2	85.2	97.4	94.2	94.2	90.5	89.1	1.9	85.4	120
Svay Rieng	92.9	92.9	89.4	82.3	81.8	92.9	91.3	82.3	81.3	75.3	7.1	81.0	58
Takeo	97.1	90.7	90.7	90.7	70.6	93.3	93.3	92.2	87.0	84.0	0.0	84.0	107
Otdar Mean Chey	93.5	95.4	95.4	88.1	76.9	95.4	95.4	88.1	83.3	77.6	4.6	84.5	21
Battambang/Pailin	94.0	96.1	93.0	85.1	70.8	96.1	93.0	85.1	82.5	78.8	3.0	71.3	124
Kampot/Kep	87.7	84.5	80.3	64.3	67.2	88.3	81.9	64.9	65.0	57.4	9.4	73.2	65
Preah Sihanouk/Koh Kong	92.2	92.6	88.0	77.5	82.6	93.2	87.6	77.5	80.4	74.2	5.3	60.4	38
Preah Vihear/Steung Treng	93.5	88.3	82.1	77.0	28.5	90.0	81.1	75.5	70.6	65.7	5.9	55.1	39
Mondol Kiri/Rattanak Kiri	68.9	66.5	50.2	40.0	46.7	73.1	49.1	39.3	44.3	28.4	22.0	41.0	33
Mother's education													
No schooling	83.5	84.4	78.0	66.7	55.5	86.4	79.2	67.2	65.2	58.4	12.1	60.8	253
Primary	95.7	93.9	91.1	86.2	72.2	93.9	91.2	86.3	82.5	80.1	2.8	80.8	913
Secondary and higher	97.7	96.5	95.2	92.2	84.5	96.9	96.0	92.5	89.9	87.6	1.7	79.9	448
Wealth quintile													
Lowest	91.1	88.2	83.5	73.5	58.5	89.6	84.5	74.5	69.4	65.3	6.6	72.8	397
Second	91.9	91.6	87.9	82.9	67.0	91.6	88.0	82.7	80.8	77.4	5.6	75.5	330
Middle	96.0	94.4	92.2	88.6	78.1	94.7	92.2	88.5	85.9	83.6	2.7	84.9	299
Fourth	97.7	97.0	95.7	90.7	79.7	97.1	96.3	90.8	87.4	84.3	0.7	81.3	295
Highest	96.3	96.4	94.4	92.6	87.4	96.4	94.7	92.6	90.4	88.2	3.0	74.2	292
Total	94.3	93.1	90.2	84.8	73.0	93.6	90.6	85.0	81.9	78.8	3.9	77.4	1,614

[1] HB 0 is a hepatitis B vaccine given at birth.
[2] BCG, measles, and three doses each of tetravalent or pentavalent and polio vaccine (excluding HB 0 vaccine given at birth)

13.2.1 Trends in Vaccination Coverage

Trends in vaccination coverage can be seen by comparing similarly collected data in the 2000 CDHS and 2005 CDHS with data from the 2010 CDHS. The data show that vaccination coverage in Cambodia substantially improved from 2000 to 2005, when the coverage was still very low for each type of vaccination. From 2005 to 2010, vaccination coverage has further improved. However, the increase between 2005 and 2010 is smaller than the increase between 2000 and 2005. This is probably due to a saturation in coverage for some vaccinations. Figure 13.1 shows that the percentage of children age 12-23 months who are fully vaccinated by 12 months of age has increased from 31 percent in 2000 to 60 percent in 2005 and 74 percent in 2010.

Figure 13.1 Trend in Vaccination by 12 Months of Age among Children 12-23 Months



All vaccines includes BCG, measles, and three doses each of DPT or Tetravalent or Pentavalent and polio vaccine.

CDHS 2010

13.3 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is one of 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 2010 CDHS, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective—that is, they are based on the mother's perception of illness with no validation from medical personnel—and that the prevalence of ARI is subject to seasonality.

Table 13.4 shows the percentage of children under five with symptoms of ARI during the two weeks preceding the survey according to selected background characteristics. Six percent of children age under five showed symptoms of ARI at some point in the two weeks preceding the survey. Only about 3 percent of children under 6 months of age experienced symptoms of ARI. The prevalence of ARI was highest among children age 6-11 months and 12-23 months (8 percent and 9 percent, respectively). After the age of 23 months, ARI prevalence decreased with increasing age of the child. The prevalence of ARI was significantly higher among children whose mothers smoke (15 percent) than among children whose mothers do not smoke (6 percent). Rural children experienced more ARI symptoms (7 percent) than urban children (3 percent).

The proportion of children with ARI symptoms was negatively associated with wealth quintile. Eight percent of children living in households in the lowest wealth quintile experienced ARI symptoms, as compared with 3 percent of children living in households in the highest wealth quintile. There were significant provincial variations in the prevalence of ARI, ranging from a low of 1 percent in Phnom Penh to a high of 16 percent in Battambang/Pailin.

Table 13.4 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, Cambodia 2010

	Children under age five		Children under age five with symptoms of ARI		
Background characteristic	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	3.4	711	*	*	24
6-11	7.7	826	59.4	38.0	64
12-23	8.5	1,614	71.7	48.0	138
24-35	7.2	1,610	65.4	34.9	116
36-47	6.2	1,537	60.3	41.2	95
48-59	4.0	1,514	54.7	29.3	61
Sex					
Male	6.9	4,033	62.7	41.2	277
Female	5.8	3,779	66.0	36.4	221
Mother's smoking status					
Smokes cigarettes/tobacco	15.4	219	(44.2)	(27.1)	34
Does not smoke	6.1	7,591	65.6	39.9	464
Cooking fuel					
Electricity	(10.1)	16	*	*	2
LPG	2.4	740	(62.5)	(58.3)	18
Biogas	(0.0)	30	na	na	0
Coal/lignite	*	1	na	na	0
Charcoal	6.5	651	73.9	36.9	43
Wood/straw/agricultural crop[3]	6.9	6,346	63.2	38.6	436
Animal dung	*	12	na	na	0
Other fuel	*	8	na	na	0
No food cooked in household	*	6	na	na	0
Residence					
Urban	3.2	1,256	67.7	48.8	41
Rural	7.0	6,555	63.8	38.2	457
Province					
Banteay Mean Chey	6.0	281	*	*	17
Kampong Cham	12.3	961	(61.0)	(36.7)	119
Kampong Chhnang	1.7	352	*	*	6
Kampong Speu	1.4	461	*	*	7
Kampong Thom	5.0	413	(71.7)	(25.5)	21
Kandal	1.7	775	*	*	13
Kratie	6.2	233	(78.5)	(36.1)	14
Phnom Penh	1.3	641	*	*	8
Prey Veng	6.2	585	*	*	36
Pursat	13.3	265	74.1	76.8	35
Siem Reap	2.4	563	*	*	13
Svay Rieng	8.4	264	(83.4)	(47.7)	22
Takeo	5.3	490	*	*	26
Otdar Mean Chey	1.5	101	*	*	2
Battambang/Pailin	15.8	545	48.9	13.4	86
Kampot/Kep	9.5	344	(59.8)	(41.5)	33
Preah Sihanouk/Koh Kong	11.1	169	(70.6)	(13.3)	19
Preah Vihear/Steung Treng	3.2	211	*	*	7
Mondol Kiri/Rattanak Kiri	9.4	157	(62.1)	(50.0)	15
Mother's education					
No schooling	7.1	1,426	51.7	29.0	102
Primary	6.9	4,412	67.4	40.0	306
Secondary and higher	4.6	1,973	67.2	47.1	90
Wealth quintile					
Lowest	7.9	2,039	60.7	32.9	161
Second	7.0	1,667	64.1	45.1	116
Middle	7.3	1,421	74.7	35.4	104
Fourth	5.3	1,369	56.1	37.6	72
Highest	3.3	1,315	65.2	56.7	44
Total	6.4	7,811	64.2	39.1	498

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Symptoms of ARI (cough accompanied by short, rapid breathing that was chest related) is considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner
[3] Includes grass, shrubs, crop residues

Approximately two-thirds (64 percent) of all children under age 5 with cough and rapid breathing were taken to a health facility or provider to seek treatment or advice. Children of mothers with no schooling were less likely to receive treatment for symptoms of ARI (52 percent) than were children of mothers with a primary education or a secondary education or higher (67 percent for both).

13.4 FEVER

Fever is a primary manifestation of malaria and other acute infections in children. Malaria and fever can contribute to high levels of malnutrition and mortality. The 2010 CDHS asked mothers whether their children experienced fever during the two weeks preceding the survey.

Table 13.5 shows the percentage of children under five who had a fever during the two weeks preceding the survey according to selected background characteristics. Overall, 28 percent of children under five had a fever at some time in the two weeks preceding the survey. The prevalence of fever varied by the age of the child. As with ARI, children age 6-11 months and 12-23 months were more commonly sick with fever (42 and 35 percent, respectively) than other children. There were no significant variations in the prevalence of fever by sex of the child. The prevalence of fever among rural children was slightly higher than that among urban children.

Provincial variations, however, were significant; fever prevalence ranged from a low of 10 percent in Preah Vihear/Steung Treng to a high of approximately 40 percent in Pursat and Mondol Kiri/Rattanak Kiri. Mother's education and wealth quintile had little impact on the prevalence of fever among children less than 5 years old.

Sixty-three percent of all children under five with fever were taken to a health facility or provider to seek treatment or advice. Children of mothers with a primary education and a secondary education or higher were more likely to receive treatment for fever (64 percent and 67 percent, respectively) than children of mothers with no schooling (54 percent). The proportion of children for whom treatment was sought from a health facility or provider was highest in Kampong Speu (74 percent) and Kampong Chhnang (73 percent) and lowest in Preah Vihear/Steung Treng (45 percent).

Less than 1 percent of children with fever received antimalarial drugs, whereas 44 percent received antibiotic drugs. Use of antibiotic drugs was more common in urban areas (52 percent) than in rural areas (43 percent) and more common among mothers with at least a secondary education (54 percent) than among mothers with no schooling (39 percent). Mothers in Prey Veng (85 percent) and those in Kampong Chhnang and Kampong Speu (79 percent in both) were most likely to use antibiotic drugs to treat fever.

Table 13.5 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey, and among children with fever, the percentage of children for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who took antibiotic drugs, by background characteristics, Cambodia 2010

Background characteristic	Among children under age five:		Children under age five with fever			
	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	21.2	711	58.4	0.4	44.5	151
6-11	41.8	826	63.3	0.2	46.9	345
12-23	34.9	1,614	64.2	0.1	48.9	563
24-35	27.9	1,610	64.3	0.9	41.5	449
36-47	25.0	1,537	61.8	0.0	39.0	384
48-59	20.0	1,514	61.0	0.2	43.2	303
Sex						
Male	28.0	4,033	62.0	0.3	43.0	1,130
Female	28.2	3,779	63.6	0.3	45.5	1,064
Residence						
Urban	25.3	1,256	57.4	0.2	52.3	318
Rural	28.6	6,555	63.7	0.3	42.9	1,877
Province						
Banteay Mean Chey	30.2	281	59.0	0.0	45.9	85
Kampong Cham	32.3	961	69.6	0.9	38.1	311
Kampong Chhnang	19.7	352	72.9	0.0	79.4	69
Kampong Speu	17.6	461	74.2	0.0	79.1	81
Kampong Thom	24.0	413	62.1	0.0	25.9	99
Kandal	30.0	775	62.3	0.0	32.7	232
Kratie	29.8	233	58.9	3.7	37.8	69
Phnom Penh	24.1	641	53.2	0.0	60.8	155
Prey Veng	27.1	585	70.8	0.0	85.3	159
Pursat	40.7	265	70.9	0.0	59.5	108
Siem Reap	32.8	563	57.2	0.0	36.8	185
Svay Rieng	35.4	264	72.4	0.0	50.4	94
Takeo	20.6	490	65.7	0.0	34.7	101
Otdar Mean Chey	16.9	101	45.8	0.0	19.3	17
Battambang/Pailin	38.1	545	52.7	0.0	30.1	208
Kampot/Kep	28.3	344	59.2	0.0	29.2	97
Preah Sihanouk/Koh Kong	24.8	169	58.6	0.0	23.1	42
Preah Vihear/Steung Treng	10.2	211	44.7	0.0	6.6	21
Mondol Kiri/Rattanak Kiri	39.5	157	54.5	2.4	28.7	62
Mother's education						
No schooling	29.1	1,426	54.3	0.4	38.8	416
Primary	29.3	4,412	63.9	0.2	42.2	1,294
Secondary and higher	24.6	1,973	67.1	0.5	54.4	485
Wealth quintile						
Lowest	30.0	2,039	57.7	0.1	37.2	612
Second	26.7	1,667	64.3	0.3	42.0	445
Middle	28.8	1,421	71.6	0.1	48.8	409
Fourth	29.8	1,369	64.9	0.3	46.7	409
Highest	24.3	1,315	56.6	0.9	52.1	319
Total	28.1	7,811	62.8	0.3	44.3	2,194

[1] Excludes pharmacy, shop, and traditional practitioner

13.5 DIARRHEA

Dehydration caused by severe diarrhea is a major cause of morbidity and mortality among young children, although the condition can be easily treated with oral rehydration therapy (ORT). Exposure to diarrhea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta.

Table 13.6 shows the percentage of children under five with diarrhea in the two weeks preceding the survey according to selected background characteristics. Overall, 15 percent of all children under five had diarrhea, and 2 percent had diarrhea with blood.

The occurrence of diarrhea varies by age of the child. Similar to ARI and fever, young children age 6-11 and 12-23 months are more prone to diarrhea (26 percent and 21 percent, respectively) than children in the other age groups. Diarrhea is slightly more common among rural children (16 percent) than urban children (10 percent). There are also variations in the prevalence of diarrhea by province. Children living in Mondol Kiri/Rattanak Kiri are more susceptible to episodes of diarrhea (24 percent) than children living in other provinces. Children living in Kampong Speu have the lowest prevalence of diarrhea (8 percent). The prevalence of diarrhea is lower among children whose mothers have a secondary education or higher, live in the richest households, and use an improved/not shared toilet facility. The prevalence of diarrhea with blood follows a pattern similar to that observed for diarrhea in general.

The 2010 CDHS asked mothers of children under age 5 who had diarrhea what was done to treat the illness. Table 13.7 shows the percentage of children with diarrhea who received specific treatments according to background characteristics. Three in five children with diarrhea were taken to a health provider. More children of mothers with a secondary education or higher were taken to a health provider than children of mothers with no schooling (63 percent and 56 percent, respectively). Although there were no differences by urban-rural residence, there were variations across provinces. Seventy-one percent of children living in Prey Veng were taken to a health facility or a health provider for advice or treatment, as compared with less than half of children living in Kampot/Kep and Kampong Thom.

Table 13.6 Prevalence of diarrhea

Percentage of children under five who had diarrhea in the two weeks preceding the survey, by background characteristics, Cambodia 2010

Background characteristic	Diarrhea in the two weeks preceding the survey: All diarrhea	Diarrhea with blood	Number of children
Age in months			
<6	14.2	1.1	711
6-11	26.4	1.9	826
12-23	21.1	2.5	1,614
24-35	13.7	1.9	1,610
36-47	9.6	1.1	1,537
48-59	8.7	1.3	1,514
Sex			
Male	15.9	1.9	4,033
Female	13.7	1.4	3,779
Residence			
Urban	10.4	1.0	1,256
Rural	15.7	1.8	6,555
Province			
Banteay Mean Chey	15.4	1.6	281
Kampong Cham	17.9	1.0	961
Kampong Chhnang	9.7	0.9	352
Kampong Speu	7.5	1.6	461
Kampong Thom	18.0	1.8	413
Kandal	10.7	0.4	775
Kratie	10.3	1.3	233
Phnom Penh	11.6	1.1	641
Prey Veng	17.2	3.3	585
Pursat	19.2	2.9	265
Siem Reap	19.8	3.6	563
Svay Rieng	21.9	2.5	264
Takeo	13.3	0.9	490
Otdar Mean Chey	9.0	1.0	101
Battambang/Pailin	17.2	1.4	545
Kampot/Kep	13.1	2.9	344
Preah Sihanouk/Koh Kong	17.4	2.4	169
Preah Vihear/Steung Treng	9.3	1.2	211
Mondol Kiri/Rattanak Kiri	24.4	2.0	157
Mother's education			
No schooling	17.4	1.9	1,426
Primary	15.7	2.0	4,412
Secondary and higher	11.2	0.9	1,973
Wealth quintile			
Lowest	18.4	2.8	2,039
Second	15.8	1.9	1,667
Middle	15.1	1.7	1,421
Fourth	12.0	0.4	1,369
Highest	10.7	1.0	1,315
Source of drinking water during dry season[1]			
Improved	14.5	1.7	4,445
Not improved	15.4	1.7	3,364
Source of drinking water during rainy season[1]			
Improved	14.4	1.7	5,957
Not improved	16.5	1.7	1,847
Toilet facility[2]			
Improved, not shared	10.8	0.9	2,277
Non-improved or shared	16.5	2.0	5,532
Total	14.9	1.7	7,811

[1] See Table 2.6 for definition of categories.
[2] See Table 2.7 for definition of categories.

Table 13.7 Diarrhea treatment

Among children under five who had diarrhea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage given other treatments, by background characteristics, Cambodia 2010

Background characteristic	Percentage of children with diarrhea for whom advice or treatment was sought from a health facility or provider[1]	Oral rehydration therapy (ORT)			Other treatments					Missing	No treatment	Number of children with diarrhea
		ORS packets or ORS tablets	Increased fluids	ORS or increased fluids	Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Intra-venous solution	Home remedy/ other			
Age in months												
<6	51.5	20.9	27.9	42.5	8.2	0.0	2.4	0.0	29.0	0.9	38.4	101
6-11	64.4	34.9	28.1	50.0	6.1	0.0	4.0	0.7	56.3	1.1	15.0	219
12-23	66.6	40.4	34.8	55.5	6.3	0.8	3.3	1.8	56.7	0.0	13.6	340
24-35	58.3	33.5	39.1	58.3	6.4	1.4	1.1	1.0	57.5	0.5	17.4	221
36-47	49.5	27.8	39.1	48.7	4.7	1.8	1.4	0.1	44.8	0.0	26.3	148
48-59	47.4	34.2	29.4	52.4	3.2	0.0	1.0	1.0	48.4	0.0	23.0	132
Sex												
Male	57.1	33.6	33.7	51.4	5.5	0.6	2.3	1.1	53.0	0.7	19.6	643
Female	61.2	34.6	33.8	54.1	6.3	0.9	2.5	0.8	50.5	0.0	19.2	518
Type of diarrhea												
Nonbloody	57.6	32.6	32.4	50.8	5.7	0.8	2.7	1.0	51.2	0.4	20.5	1,025
Bloody	69.1	44.5	43.1	66.1	7.5	0.0	0.7	0.8	57.3	0.0	11.0	131
Residence												
Urban	58.1	33.0	25.8	51.8	10.1	1.5	1.4	0.0	61.9	0.7	13.3	131
Rural	59.0	34.2	34.7	52.7	5.4	0.6	2.5	1.1	50.6	0.3	20.2	1,029
Province												
Banteay Mean Chey	51.4	34.7	36.5	49.3	30.4	0.0	10.0	4.9	49.3	0.0	14.6	43
Kampong Cham	61.9	17.0	37.7	44.5	1.4	0.0	0.0	0.0	46.0	0.0	28.6	172
Kampong Chhnang	(66.7)	(30.1)	(36.7)	(54.8)	(39.3)	(0.0)	(16.9)	(0.0)	(48.9)	(0.0)	(12.2)	34
Kampong Speu	(58.1)	(34.4)	(54.4)	(58.6)	(0.0)	(0.0)	(0.0)	(0.0)	(91.3)	(0.0)	(4.2)	34
Kampong Thom	48.7	27.4	50.1	60.2	0.0	0.0	17.5	0.0	63.6	0.0	15.3	74
Kandal	(72.9)	(35.2)	(36.0)	(49.9)	(6.6)	(0.0)	(0.0)	(0.0)	(56.5)	(0.0)	(12.7)	83
Kratie	51.5	33.3	15.0	43.7	6.9	2.3	2.0	6.2	47.3	0.0	19.0	24
Phnom Penh	59.5	37.7	20.0	52.1	13.9	0.0	0.0	0.0	62.6	0.0	11.3	74
Prey Veng	70.7	34.7	24.7	45.1	0.0	0.0	0.0	0.0	67.0	2.5	16.3	100
Pursat	60.6	61.0	30.0	75.8	9.3	0.0	0.0	1.3	42.6	1.8	13.1	51
Siem Reap	52.6	45.5	44.4	67.0	4.4	0.0	1.5	3.1	54.9	0.0	16.8	112
Svay Rieng	65.2	39.7	44.8	60.1	5.1	0.0	1.4	0.0	30.8	0.0	21.9	58
Takeo	(50.5)	(36.6)	(51.6)	(65.3)	(4.3)	(0.0)	(0.0)	(0.0)	(39.1)	(0.0)	(11.4)	65
Otdar Mean Chey	(67.8)	(63.6)	(33.6)	(76.5)	(0.0)	(0.0)	(0.0)	(0.0)	(23.5)	(0.0)	(15.6)	9
Battambang/Pailin	52.0	32.8	16.9	38.4	5.0	8.5	1.8	0.0	64.2	1.0	22.1	94
Kampot/Kep	(43.7)	(20.3)	(12.4)	(32.6)	(2.8)	(0.0)	(0.7)	(7.5)	(45.4)	(0.0)	(31.2)	45
Preah Sihanouk/Koh Kong	66.1	44.5	27.3	57.3	0.0	0.0	0.0	0.0	30.8	0.0	33.0	30
Preah Vihear/Steung Treng	(59.1)	(24.0)	(16.8)	(40.8)	(0.0)	(0.0)	(0.0)	(0.0)	(44.2)	(0.0)	(38.3)	20
Mondol Kiri/Rattanak Kiri	58.5	43.0	22.7	52.7	1.4	0.0	0.0	1.0	20.4	0.4	37.0	38
Mother's education												
No schooling	55.5	30.6	32.7	52.0	3.5	0.4	2.5	1.3	44.1	0.1	26.1	248
Primary	58.8	35.2	35.7	53.8	6.2	0.7	2.4	0.9	51.9	0.1	18.8	693
Secondary and higher	63.0	34.4	28.6	49.7	7.8	1.1	2.4	1.0	60.5	1.6	13.9	220
Wealth quintile												
Lowest	53.3	31.8	38.5	54.2	3.3	0.3	1.7	0.8	46.4	0.0	23.6	376
Second	59.4	32.8	26.3	45.5	4.4	1.4	3.1	0.7	51.3	0.3	21.0	264
Middle	67.3	39.0	41.8	60.1	4.4	0.0	2.3	1.3	55.4	1.2	13.6	215
Fourth	59.3	34.5	34.4	52.8	9.8	0.8	4.1	1.6	54.4	0.6	18.8	164
Highest	59.7	34.3	21.6	50.2	13.5	1.7	1.3	0.8	59.4	0.0	15.0	141
Total	58.9	34.1	33.7	52.6	5.9	0.7	2.4	1.0	51.9	0.4	19.4	1,161

Note: ORT includes solution prepared from ORS packet/tablet or increased fluids. Figures in parentheses are based on 25-49 unweighted cases.
ORS = oral rehydration salts
[1] Excludes pharmacy, shop, and traditional practitioner

Comparable data from the 2005 CDHS show that a higher percentage of children with diarrhea were taken to a health provider in 2010 than in 2005 (59 percent versus 37 percent).

Fifty-three percent of children with diarrhea were treated with some kind of oral rehydration therapy: 34 percent were treated with a solution prepared from an ORS packet or prepackaged liquid, and the same percentage were given recommended home fluids. However, about one in five children (19 percent) with diarrhea did not receive any treatment at all.

Diarrhea treatment varied by age: 56 percent of children age 12-23 months received ORT, as compared with 43 percent of children under 6 months of age. Children who had diarrhea with blood

were more likely than children with nonbloody diarrhea to receive ORT. Children living in Battambang/Pailin (38 percent) were least likely to receive ORT or increased fluids.

13.6 FEEDING PRACTICES

Mothers are normally encouraged to continue feeding children with diarrhea and to increase the amount of fluids given. These practices help to reduce dehydration and minimize the adverse consequences of diarrhea on the child's nutritional status. Mothers were asked whether they gave their child less, the same amount, or more fluids and food than usual when the child had diarrhea. Table 13.8 shows the percent distribution of children under five who had diarrhea in the two weeks preceding the survey by feeding practices and according to background characteristics.

Forty-nine percent of children who had diarrhea were given the same amount of liquid as usual, and 34 percent were given more. Ten percent of children were given somewhat less than the usual amount, and 5 percent were given much less than the usual amount. Less than 2 percent of children who had diarrhea were given no liquids.

Regarding the amount of food offered to children who had diarrhea, 55 percent were given the same as usual, 16 percent were given more than usual, 19 percent were given somewhat less than usual, 3 percent were given much less than usual, and less than 1 percent did not receive food during their illness.

Children under 6 months of age and children residing in Pursat were least likely to receive the same amount of liquid or more during episodes of diarrhea. Children under 6 months of age, children with bloody diarrhea, and children residing in Kampong Cham and Banteay Mean Chey were least likely to receive the same amount of food or more.

Table 13.8 Feeding practices during diarrhea

Percent distribution of children under five who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children who continued feeding and were given oral rehydration therapy (ORT) and/or increased fluids during the episode of diarrhea, by background characteristics, Cambodia 2010

Background characteristic	Amount of liquids offered							Amount of food offered								Percentage given increased fluids and continued feeding[1,2]	Percentage who continued feeding and were given ORT and/or increased fluids[3]	Number of children with diarrhea
	More	Same as usual	Somewhat less	Much less	None	Don't know/ missing	Total	More	Same as usual	Somewhat less	Much less	None	Never gave food	Don't know/ missing	Total			
Age in months																		
<6	27.9	47.6	7.0	0.0	15.0	2.5	100.0	5.8	36.3	2.2	0.0	0.0	50.2	5.6	100.0	7.0	14.5	101
6-11	28.1	54.6	9.5	6.7	1.1	0.0	100.0	14.4	55.4	15.9	5.0	0.9	8.4	0.0	100.0	24.8	43.8	219
12-23	34.8	44.9	12.8	6.5	0.1	0.8	100.0	18.2	56.7	19.9	3.3	0.6	0.5	0.8	100.0	34.1	53.2	340
24-35	39.1	46.9	9.5	4.5	0.0	0.0	100.0	17.7	56.9	23.3	1.7	0.4	0.0	0.0	100.0	38.5	56.7	221
36-47	39.1	51.7	5.9	2.6	0.0	0.7	100.0	19.9	55.2	23.3	1.0	0.0	0.0	0.7	100.0	39.1	48.7	148
48-59	29.4	55.1	11.2	4.3	0.0	0.0	100.0	13.1	62.3	23.5	1.0	0.0	0.0	0.0	100.0	29.0	51.4	132
Sex																		
Male	33.7	50.8	9.9	4.2	1.5	0.0	100.0	15.5	57.2	19.3	2.7	0.5	4.2	0.5	100.0	31.9	48.6	643
Female	33.8	47.6	10.2	5.7	1.6	1.2	100.0	16.4	52.6	18.8	2.2	0.3	8.5	1.2	100.0	29.7	47.2	518
Type of diarrhea																		
Nonbloody	32.4	51.5	9.8	4.4	1.3	0.6	100.0	15.2	57.4	17.6	2.3	0.3	6.2	0.9	100.0	29.6	46.3	1,025
Bloody	43.1	33.7	11.3	8.4	3.5	0.0	100.0	22.1	38.1	29.3	4.1	1.0	5.3	0.0	100.0	40.3	60.4	131
Residence																		
Urban	25.8	60.8	7.4	3.8	2.3	0.0	100.0	10.9	60.4	15.6	2.0	1.2	10.0	0.0	100.0	23.1	45.3	131
Rural	34.7	47.9	10.3	5.0	1.4	0.6	100.0	16.6	54.5	19.6	2.5	0.3	5.6	0.9	100.0	31.9	48.3	1,029
Province																		
Banteay Mean Chey	36.5	40.2	7.0	10.2	6.1	0.0	100.0	19.1	39.0	29.3	2.4	1.2	9.1	0.0	100.0	35.5	42.8	43
Kampong Cham	37.7	38.5	16.0	2.8	3.4	1.6	100.0	20.8	31.7	32.6	1.3	0.5	11.5	1.6	100.0	33.0	39.7	172
Kampong Chhnang	(36.7)	(52.6)	(0.0)	(5.9)	(4.8)	(0.0)	100.0	(19.0)	(56.9)	(3.5)	(3.4)	(0.0)	(17.1)	(0.0)	100.0	(29.0)	(43.7)	34
Kampong Speu	(54.4)	(45.6)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(25.0)	(55.4)	(19.6)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(54.4)	(58.6)	34
Kampong Thom	50.1	28.9	14.1	7.0	0.0	0.0	100.0	21.2	43.3	23.8	1.7	0.0	9.9	0.0	100.0	43.5	53.6	74
Kandal	(36.0)	(39.5)	(16.7)	(6.7)	(1.1)	(0.0)	100.0	(0.0)	(76.6)	(22.2)	(0.0)	(0.0)	(1.1)	(0.0)	100.0	(36.0)	(49.9)	83
Kratie	15.0	76.2	4.3	4.5	0.0	0.0	100.0	8.9	72.8	14.9	3.5	0.0	0.0	0.0	100.0	15.0	41.6	24
Phnom Penh	20.0	74.7	2.9	2.4	0.0	0.0	100.0	7.1	82.5	5.2	0.0	0.0	5.3	0.0	100.0	17.9	46.8	74
Prey Veng	24.7	57.3	11.7	2.2	1.7	2.5	100.0	16.8	61.0	11.0	2.2	0.0	5.5	3.7	100.0	20.9	38.9	100
Pursat	30.0	39.7	23.9	3.2	1.6	1.7	100.0	17.5	49.6	28.5	0.0	0.0	2.7	1.7	100.0	30.0	75.8	51
Siem Reap	44.4	42.5	7.2	4.2	1.6	0.0	100.0	23.6	51.7	15.4	5.2	0.0	4.2	0.0	100.0	43.5	60.3	112
Svay Rieng	44.8	46.8	4.8	3.6	0.0	0.0	100.0	28.3	51.4	10.6	3.6	0.0	6.0	0.0	100.0	43.4	57.1	58
Takeo	(51.6)	(34.6)	(4.7)	(9.0)	(0.0)	(0.0)	100.0	(26.7)	(57.5)	(6.3)	(2.2)	(2.1)	(5.2)	(0.0)	100.0	(44.0)	(55.8)	65
Otdar Mean Chey	(33.6)	(44.8)	(1.4)	(15.6)	(4.5)	(0.0)	100.0	(0.0)	(64.8)	(6.3)	(10.8)	(2.6)	(15.5)	(0.0)	100.0	(22.5)	(58.0)	9
Battambang/Pailin	16.9	71.3	6.5	5.3	0.0	0.0	100.0	8.0	59.8	16.4	8.8	0.0	5.0	2.1	100.0	15.9	35.5	94
Kampot/Kep	(12.4)	(64.4)	(8.8)	(14.4)	(0.0)	(0.0)	100.0	(3.2)	(63.3)	(31.2)	(0.0)	(2.2)	(0.0)	(0.0)	100.0	(12.4)	(32.6)	45
Preah Sihanouk/Koh Kong	27.3	54.4	11.5	1.9	4.9	0.0	100.0	8.2	62.0	24.9	0.7	0.0	4.3	0.0	100.0	27.3	56.6	30
Preah Vihear/Steung Treng	(16.8)	(68.0)	(12.7)	(2.4)	(0.0)	(0.0)	100.0	(4.8)	(67.1)	(15.4)	(6.9)	(0.0)	(5.8)	(0.0)	100.0	(9.3)	(28.7)	20
Mondol Kiri/Rattanak Kiri	22.7	61.6	11.1	2.5	1.6	0.3	100.0	11.8	58.5	21.5	0.0	2.4	5.5	0.3	100.0	20.9	49.1	38
Mother's education																		
No schooling	32.7	51.5	10.2	4.6	0.6	0.4	100.0	13.4	53.8	21.1	3.5	1.1	6.3	0.9	100.0	28.7	46.0	248
Primary	35.7	47.3	10.6	3.6	2.0	0.8	100.0	15.9	55.3	19.2	1.4	0.2	7.0	1.0	100.0	32.6	49.1	693
Secondary and higher	28.6	53.5	7.8	9.0	1.2	0.0	100.0	18.9	56.4	16.6	4.8	0.3	3.2	0.0	100.0	28.2	46.6	220
Wealth quintile																		
Lowest	38.5	43.8	11.3	4.2	1.4	0.7	100.0	21.1	49.3	20.0	1.6	0.7	6.1	1.3	100.0	35.4	49.7	376
Second	26.3	52.8	14.2	3.5	1.8	1.3	100.0	11.6	54.5	19.6	3.5	0.4	8.5	1.8	100.0	22.1	38.8	264
Middle	41.8	43.8	7.2	5.5	1.6	0.0	100.0	19.0	53.6	22.0	1.0	0.0	4.4	0.0	100.0	38.8	56.4	215
Fourth	34.4	51.9	8.0	5.5	0.2	0.0	100.0	12.1	64.3	17.9	3.8	0.1	1.8	0.0	100.0	33.7	52.0	164
Highest	21.6	63.3	5.0	7.3	2.8	0.0	100.0	10.0	63.7	12.7	3.6	0.7	9.2	0.0	100.0	20.0	42.9	141
Total	33.7	49.4	10.0	4.8	1.5	0.5	100.0	15.9	55.2	19.1	2.5	0.4	6.1	0.8	100.0	30.9	48.0	1,161

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Equivalent to the UNICEF/WHO indicator "Home management of diarrhea" (MICS Indicator 34).
[2] Continued feeding practices includes children who were given more, the same as usual, or somewhat less food during the diarrhea episode.
[3] Equivalent to UNICEF MICS Indicator 35.

13.7 KNOWLEDGE OF ORS PACKETS

A simple and effective response to dehydration caused by diarrhea is a prompt increase in the child's fluid intake through some form of oral rehydration therapy, which may include the use of a solution prepared from packets of oral rehydration salts (ORS). To ascertain how widespread knowledge of ORS is in Cambodia, respondents were asked whether they know about ORS packets. Interviewers displayed a sample ORS packet to respondents when asking the question.

Table 13.9 shows that nearly all (95 percent) of the women who gave birth in the five years preceding the survey know about ORS packets. In the 2005 CDHS, 91 percent of women reported knowing about ORS packets.

Mothers with no schooling are less likely to know about ORS packets (88 percent) than mothers with a primary school education (95 percent) or a secondary education or higher (99 percent). Mothers in Preah Vihear/Steung Treng (81 percent) and Mondol Kiri/ Rattanak Kiri (82 percent) are least likely to know about ORS packets.

Table 13.9 Knowledge of ORS packets

Percentage of mothers age 15-49 who gave birth in the five years preceding the survey who know about ORS packets for treatment of diarrhea, by background characteristics, Cambodia 2010

Background characteristic	Percentage of women who know about ORS packets	Number of women
Age		
15-19	92.4	196
20-24	95.2	1,427
25-34	95.3	3,423
35-49	92.0	1,425
Residence		
Urban	98.1	1,050
Rural	93.8	5,421
Province		
Banteay Mean Chey	90.4	243
Kampong Cham	85.3	795
Kampong Chhnang	98.7	285
Kampong Speu	98.2	392
Kampong Thom	96.8	332
Kandal	98.4	628
Kratie	91.7	176
Phnom Penh	99.2	538
Prey Veng	97.2	514
Pursat	95.5	206
Siem Reap	98.5	441
Svay Rieng	97.8	233
Takeo	97.3	417
Otdar Mean Chey	98.0	86
Battambang/Pailin	97.2	451
Kampot/Kep	86.1	296
Preah Sihanouk/Koh Kong	93.5	144
Preah Vihear/Steung Treng	81.0	170
Mondol Kiri/Rattanak Kiri	82.0	124
Education		
No schooling	87.9	1,133
Primary	94.6	3,635
Secondary and higher	98.6	1,703
Wealth quintile		
Lowest	89.6	1,585
Second	92.9	1,380
Middle	96.1	1,229
Fourth	97.3	1,155
Highest	98.6	1,123
Total	94.5	6,472

ORS = oral rehydration salts

13.8 STOOL DISPOSAL

If human feces are left uncontained, disease may spread by direct contact or by animal contact with the feces. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 13.10 presents information on disposal of the stools of children under five, by background characteristics.

Thirty-two percent of children's stools are left uncontained: 5 percent are put or rinsed into a drain or ditch, 2 percent are thrown into the garbage, and 25 percent are rinsed away. Sixty-six percent of children's stools are disposed of hygienically: 40 percent are buried in the yard, 17 percent are disposed of in a toilet or latrine, and 9 percent of children under five use a toilet or latrine.

There are significant differences in stool disposal practices by mother's level of education and type of toilet facilities available. For more than three-fourths (77 percent) of children of mothers with a secondary education or higher, stools are disposed of hygienically (child uses toilet, child's stool thrown in toilet or buried in yard), as compared with 52 percent of children of mothers with no schooling. Similarly, 85 percent of children in households with improved toilets that are not shared with other households have their stools contained, as compared with 58 percent of children in households using non-improved or shared toilet facilities.

Children's stools are more likely to be contained in urban areas (85 percent) than in rural areas (63 percent), as would be expected given that toilet facilities are more available in urban areas. There are also large provincial variations in stool disposal practices. The percentage of children whose stools are contained through disposal ranges from a low of 25 percent in Prey Veng and 32 percent in Mondol Kiri/Rattanak Kiri to a high of 89 percent in Phnom Penh.

Table 13.10 Disposal of children's stools

Percent distribution of youngest children under five living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Cambodia 2010

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	Rinsed away	Other	Missing			
Age in months											
<6	0.3	17.7	24.5	19.4	7.4	23.6	7.1	0.0	100.0	42.5	704
6-11	1.2	19.9	40.6	6.2	4.3	25.0	2.4	0.3	100.0	61.7	821
12-23	3.3	23.2	42.4	2.9	2.5	24.1	1.5	0.1	100.0	68.9	1,551
24-35	11.9	15.8	43.9	2.7	0.5	24.6	0.5	0.2	100.0	71.7	1,343
36-47	17.4	14.1	40.2	2.8	0.2	24.1	0.4	0.8	100.0	71.7	1,026
48-59	21.1	10.0	39.8	2.3	0.6	25.6	0.6	0.1	100.0	70.8	831
Residence											
Urban	20.6	53.9	10.8	2.9	6.0	4.7	0.6	0.4	100.0	85.4	1,016
Rural	7.0	10.3	45.3	5.4	1.5	28.3	1.9	0.2	100.0	62.6	5,260
Province											
Banteay Mean Chey	10.5	24.8	43.6	3.0	2.7	14.9	0.4	0.0	100.0	78.9	239
Kampong Cham	7.1	5.0	57.4	4.9	0.7	22.6	1.6	0.6	100.0	69.6	774
Kampong Chhnang	6.5	10.0	67.9	8.6	0.6	6.0	0.0	0.4	100.0	84.4	273
Kampong Speu	11.2	14.5	60.7	1.0	2.5	8.5	1.2	0.5	100.0	86.4	379
Kampong Thom	4.5	12.6	70.2	0.8	0.1	5.4	6.5	0.0	100.0	87.2	319
Kandal	10.4	23.1	38.1	7.9	3.5	15.2	1.8	0.0	100.0	71.7	614
Kratie	1.9	15.9	34.6	0.0	0.7	40.6	6.1	0.1	100.0	52.4	171
Phnom Penh	22.7	63.3	2.5	1.2	7.9	2.0	0.0	0.3	100.0	88.6	520
Prey Veng	5.3	3.8	16.3	4.1	1.0	69.6	0.0	0.0	100.0	25.4	502
Pursat	9.4	10.2	24.6	3.0	2.7	46.5	2.8	0.7	100.0	44.3	204
Siem Reap	8.4	15.0	60.2	6.5	0.8	8.1	0.9	0.0	100.0	83.6	433
Svay Rieng	4.8	6.3	44.1	12.5	3.4	28.6	0.4	0.0	100.0	55.2	224
Takeo	9.4	6.1	39.9	2.3	0.8	39.5	2.0	0.0	100.0	55.4	405
Otdar Mean Chey	4.3	14.2	47.9	1.3	0.5	31.8	0.1	0.0	100.0	66.3	83
Battambang/Pailin	11.7	31.6	34.6	7.8	2.7	9.9	1.4	0.3	100.0	78.0	433
Kampot/Kep	7.8	8.6	25.6	11.4	0.8	44.8	0.0	1.0	100.0	42.1	284
Preah Sihanouk/Koh Kong	10.8	24.2	10.3	15.1	5.6	29.5	4.4	0.0	100.0	45.3	137
Preah Vihear/Steung Treng	3.8	7.0	30.2	3.2	1.4	54.2	0.1	0.0	100.0	41.0	162
Mondol Kiri/Rattanak Kiri	6.9	7.1	18.0	0.8	3.3	49.1	14.1	0.7	100.0	32.0	119
Education											
No schooling	3.8	6.1	42.4	5.2	1.9	37.8	2.7	0.2	100.0	52.3	1,090
Primary	7.4	12.2	45.8	5.5	1.9	25.1	1.6	0.4	100.0	65.4	3,528
Secondary and higher	16.6	35.7	25.1	3.9	3.1	14.3	1.3	0.1	100.0	77.4	1,658
Toilet facility											
Improved, not shared[1]	24.5	45.8	15.0	2.7	3.7	6.7	1.4	0.2	100.0	85.3	1,893
Non-improved or shared	2.5	5.0	50.5	6.0	1.6	32.2	1.9	0.3	100.0	58.1	4,381
Wealth quintile											
Lowest	1.1	0.8	54.7	5.0	0.3	35.6	2.4	0.2	100.0	56.6	1,536
Second	3.4	2.5	51.2	5.5	1.1	34.5	1.6	0.1	100.0	57.2	1,336
Middle	4.9	7.8	49.4	6.1	1.4	28.2	1.6	0.5	100.0	62.1	1,196
Fourth	16.0	29.4	29.1	5.7	2.9	14.8	1.9	0.2	100.0	74.4	1,124
Highest	25.4	57.1	4.9	2.6	6.6	2.2	1.0	0.3	100.0	87.4	1,085
Total	9.2	17.3	39.8	5.0	2.2	24.5	1.7	0.3	100.0	66.3	6,276

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

NUTRITION OF CHILDREN AND WOMEN 14

Nutritional status is the result of complex interactions between food consumption and the overall status of health and care practices. Numerous socioeconomic and cultural factors influence decisions on patterns of feeding and nutritional status. Adequate nutrition is critical to child development. The period from birth to 2 years of age is important to optimal growth, health, and development. During this period, children who do not receive adequate nutrition can be susceptible to growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhea and acute respiratory infections. Among women malnutrition can result in reduced productivity, an increased susceptibility to infections, slow recovery from illness, and a heightened risk of adverse pregnancy outcomes. A woman who has poor nutritional status, as indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiency, has a greater risk of obstructed labor, of having a baby with a low birth weight, of producing lower quality breast milk, of mortality due to postpartum hemorrhage, and of morbidity for both herself and her baby.

The 2010 Cambodia Demographic and Health Survey (CDHS) asked questions about early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding until at least age 2, timely introduction of complementary foods at age 6 months (with increasing frequency of feeding solid and semisolid foods), and diet diversity. The height and weight of all children under age 5 and women age 15-49 were measured. This chapter presents findings on infant feeding practices, maternal eating patterns, household testing of salt for adequate levels of iodine, and the nutritional status of women and children.

14.1 NUTRITIONAL STATUS OF CHILDREN

Nutritional status of children under age 5 is an important measure of children's health. The anthropometric data on height and weight collected in the 2010 CDHS permit the measurement and evaluation of the nutritional status of young children in Cambodia.

14.1.1 Measurement of Nutritional Status among Young Children

In addition to questions about feeding practices of infants and young children, the 2010 CDHS included an anthropometric component in which children under 5 years of age in a subsample of 50 percent of the households were measured for height and weight. Weight measurements were taken using a lightweight electronic SECA scale designed and manufactured under the guidance of the United Nations Children's Fund (UNICEF). The scale allowed for the weighing of very young children through an automatic mother-child adjustment that eliminated the mother's weight while she was standing on the scale with her baby. Height measurements were carried out using a SECA measuring board also produced under the guidance of UNICEF. Children younger than 24 months were measured lying down (recumbent length) on the board, whereas standing height was measured for older children. Based on these measurements, three internationally accepted indices were constructed and are used to reflect the nutritional status of children. These are:

- Height-for-age (stunting)
- Weight-for-height (wasting)
- Weight-for-age (underweight)

In the 2005 CDHS, children's anthropometric measurements were compared with an international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control and Prevention (CDC). In the 2010 CDHS, as recommended by the World Health Organization (WHO), the nutritional status of children in the survey population was compared with the 2006 WHO Child Growth Standards (WHO, 2006), which are based on an international sample (from Brazil, Ghana, India, Norway, Oman, and the United States) of ethnically, culturally, and genetically diverse healthy children living under optimum conditions conducive to achieving a child's full genetic growth potential. The 1977 NCHS/CDC/WHO reference was replaced with the 2006 WHO Child Growth Standards because of the prescriptive rather than descriptive nature of the WHO standards versus the NCHS reference. Also, the 2006 WHO Child Growth Standards identify the breastfed child as the normative model for growth and development and document how children should grow under optimum conditions and infant feeding and child health practices.

The use of the 2006 WHO Child Growth Standards is based on the finding that well-nourished children in all population groups for which data exist follow very similar growth patterns before puberty. The internationally based standard population serves as a point of comparison, facilitating examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time.

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) from the mean of the reference population are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) from the mean of the reference population 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 does not vary according to recent dietary intake.

The weight-for-height index measures body mass in relation to body length and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) from the mean of the reference population are considered thin (wasted) for their height 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 minus three standard deviations (-3 SD) from the mean of the reference population 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 minus two standard deviations (-2 SD) from the mean of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the mean of the reference population are considered severely underweight.

A total of 4,174 children under age 5 were eligible to be measured for weight and height. Of these children, 95.2 percent had complete data on their age and on their weight and height measurements. The following analysis focuses on the 3,975 children for whom complete and valid anthropometric data were collected.

14.1.2 Measures of Child Nutritional Status

Nationally, 40 percent of children under age 5 are stunted, and 14 percent are severely stunted (Table 14.1 and Figure 14.1). Analysis by age group indicates that stunting is apparent even among children less than 6 months of age (10 percent). Stunting increases with the age of the child, rising from 19 percent among children age 9-11 months to 49 percent among children age 48-59 months. There is very little difference in the level of stunting by gender. Stunting is highest when the birth interval is less than 24 months (45 percent). Size at birth is an important indicator of children's nutritional status. More than half of the children reported to have been small or very small at birth are stunted. A large percentage (43 percent) of children whose mothers are underweight are stunted than children of normal weight mothers (39 percent). The disparity in stunting prevalence between rural and urban children is substantial: 42 percent of rural children are stunted, as compared with 28 percent of urban children. Variation in nutritional status of children by province is quite evident, with stunting being highest in Preah Vihear/Steung Treng (56 percent) and lowest in Phnom Penh (25 percent). Mother's level of education and wealth quintile have an inverse relationship with stunting levels. For example, the prevalence of stunting is higher among children living in the poorest households (51 percent) than among children in the richest households (23 percent).

Eleven percent of children under 5 are wasted, and 3 percent are severely wasted. The wasting prevalence is highest among children less than 6 months (16 percent) and begins to show a general decline only after 18 months of age. Wasting does not vary substantially by sex or area of residence. There is a substantial correlation between wasting and birth weight. Babies who are very small and small at birth are more likely to be wasted (15 percent and 20 percent, respectively) than those of average or large size at birth (11 percent and 8 percent). The proportion of wasting in children of thin (BMI below 18.5) mothers is more than twice that of children whose mothers are overweight or obese. Wasting is highest in Otdar Mean Chey (18 percent) and lowest in Kratie (7 percent).

Overweight and obesity affect a very small proportion of children in Cambodia. Overall, 2 percent of children below age 5 are overweight or obese (weight-for-height more than +2 SD). Overweight and obesity among children decrease with increasing age. There are no substantial differences by sex, but overweight and obesity increase with increasing BMI of the mother. Variation by region is minimal.

Twenty-eight percent of children under 5 are underweight (low weight-for-age), and 7 percent are severely underweight. Figure 14.1 shows that the percentage of children underweight increases steadily from 13 percent among children under age 6 months to 16 percent among children age 6-8 months, 26 percent among children age 18-23 months, and 36 percent among children age 48-59 months. This may be due to inappropriate and/or inadequate feeding practices because the percentage of underweight children begins to increase at the age when normal complementary feeding starts. The prevalence of underweight is 11 percentage points higher among rural children (30 percent) than among urban children (19 percent) (Table 14.1). More than half of the provinces in Cambodia have percentages of underweight children above the national average. A mother's wealth status and educational level are negatively correlated with the likelihood that her child is underweight. Children born to mothers in the lowest wealth quintile are more than twice as likely (35 percent) to be underweight as children born to mothers in the highest wealth quintile (16 percent).

Table 14.1 Nutritional status of children

Percentage of children under 5 years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age[1], by background characteristics, Cambodia 2010

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	5.1	10.4	-0.5	5.2	16.2	4.0	-0.6	2.0	12.8	0.2	-0.8	294
6-8	5.9	20.5	-0.9	1.6	15.6	3.0	-0.6	1.6	15.9	0.2	-1.0	230
9-11	6.2	18.7	-0.9	3.4	12.4	1.7	-0.7	3.5	19.0	0.0	-1.0	191
12-17	9.3	32.0	-1.3	2.7	14.5	1.5	-0.8	5.1	21.2	0.4	-1.2	412
18-23	13.7	46.7	-1.8	2.3	11.1	2.0	-0.7	7.3	25.7	0.2	-1.4	414
24-35	16.5	47.2	-1.9	2.6	8.4	1.0	-0.6	6.9	30.8	0.1	-1.5	836
36-47	15.5	44.8	-1.9	1.8	10.2	2.0	-0.7	8.5	34.5	0.2	-1.6	762
48-59	17.8	49.3	-2.0	2.1	8.8	0.5	-0.8	9.0	36.0	0.0	-1.7	836
Sex												
Male	13.8	41.6	-1.7	2.3	11.4	1.5	-0.7	6.4	28.0	0.2	-1.4	2,048
Female	13.4	38.2	-1.6	2.7	10.4	1.8	-0.7	6.9	28.6	0.1	-1.4	1,927
Birth interval in months[3]												
First birth[4]	10.2	36.1	-1.6	2.8	11.6	1.9	-0.7	4.9	26.7	0.2	-1.4	1,246
<24	21.6	45.4	-1.8	3.7	9.1	1.5	-0.6	8.4	31.7	0.1	-1.5	361
24-47	14.3	43.3	-1.7	2.7	10.7	1.3	-0.7	7.7	29.2	0.4	-1.5	1,070
48+	12.6	35.9	-1.6	1.7	12.6	1.9	-0.8	6.6	26.2	0.0	-1.4	919
Size at birth[3]												
Very small	23.3	63.3	-2.3	3.1	15.4	1.8	-0.9	19.4	45.3	0.0	-2.0	81
Small	20.1	52.9	-1.9	5.7	20.4	2.2	-0.9	14.7	42.3	0.3	-1.8	280
Average or larger	11.8	36.5	-1.6	2.3	10.6	1.6	-0.7	5.3	25.6	0.2	-1.4	3,125
Missing	26.6	59.3	-2.4	2.5	7.6	0.7	-0.8	12.1	39.5	0.0	-1.9	111
Mother's interview status												
Interviewed	13.2	39.1	-1.6	2.6	11.4	1.7	-0.7	6.5	27.8	0.2	-1.4	3,597
Not interviewed but in household	11.0	53.4	-1.9	0.0	1.8	2.7	-0.5	7.6	27.7	0.0	-1.4	83
Not interviewed and not in household[5]	19.3	46.1	-1.8	2.0	8.1	0.9	-0.7	8.1	34.5	0.0	-1.5	296
Mother's nutritional status[6]												
Thin (BMI < 18.5)	14.0	43.2	-1.7	3.7	16.4	0.8	-1.0	10.6	34.3	0.2	-1.7	642
Normal (BMI 18.5-24.9)	13.0	38.9	-1.6	2.4	10.6	1.7	-0.7	6.0	27.0	0.1	-1.4	2,623
Overweight/obese (BMI ≥ 25)	11.8	33.5	-1.5	0.9	6.1	3.1	-0.4	2.1	20.9	0.6	-1.2	344
Missing	12.5	54.5	-2.0	4.9	7.1	2.5	-0.5	10.9	27.7	0.0	-1.5	62
Residence												
Urban	9.5	27.5	-1.3	3.3	11.6	2.9	-0.5	3.5	18.8	0.5	-1.1	600
Rural	14.3	42.2	-1.7	2.3	10.8	1.4	-0.7	7.2	30.0	0.1	-1.5	3,375
Province												
Banteay Mean Chey	9.0	33.4	-1.4	1.4	7.3	0.3	-0.6	4.3	17.1	0.0	-1.2	177
Kampong Cham	17.4	46.9	-1.9	2.3	11.8	1.3	-0.7	5.8	31.3	0.0	-1.6	477
Kampong Chhnang	14.4	40.3	-1.7	4.5	11.4	0.6	-0.8	10.2	30.8	0.0	-1.5	182
Kampong Speu	15.3	42.1	-1.8	1.8	10.2	0.6	-0.9	7.0	34.4	0.0	-1.6	228
Kampong Thom	19.7	49.9	-2.0	1.2	11.5	1.7	-0.8	11.4	34.4	0.0	-1.7	222
Kandal	7.0	34.9	-1.5	0.2	9.9	1.5	-0.7	3.8	24.7	0.2	-1.3	390
Kratie	18.2	47.6	-1.8	2.3	7.1	1.4	-0.7	6.1	30.7	0.0	-1.5	116
Phnom Penh	12.2	25.1	-1.2	2.6	11.2	3.3	-0.5	3.2	18.5	0.5	-1.0	300
Prey Veng	9.1	34.6	-1.5	2.7	10.9	0.9	-0.7	4.7	25.5	0.0	-1.3	352
Pursat	16.8	44.8	-1.7	4.3	13.3	4.1	-0.7	8.0	30.5	0.6	-1.4	130
Siem Reap	19.9	50.3	-1.9	5.7	12.3	1.1	-0.7	12.8	34.9	0.0	-1.6	266
Svay Rieng	9.4	31.2	-1.5	4.0	12.2	0.1	-0.9	5.4	29.7	0.7	-1.5	138
Takeo	9.1	41.3	-1.8	1.4	9.5	0.0	-0.8	6.1	31.1	0.0	-1.6	249
Otdar Mean Chey	15.8	39.6	-1.6	6.6	17.6	6.2	-0.6	6.6	30.5	1.5	-1.3	45
Battambang/Pailin	6.1	26.5	-1.2	3.2	14.4	3.5	-0.7	6.1	22.3	0.2	-1.2	274
Kampot/Kep	12.4	43.4	-1.8	1.0	8.9	1.5	-0.6	6.2	29.9	0.0	-1.5	169
Preah Sihanouk/Koh Kong	15.6	41.8	-1.6	2.8	9.1	4.3	-0.5	6.1	21.8	0.0	-1.3	85
Preah Vihear/Steung Treng	29.7	56.4	-2.2	1.5	8.0	1.6	-0.5	12.8	36.8	1.0	-1.7	105
Mondol Kiri/Rattanak Kiri	26.7	54.9	-2.0	3.6	10.3	2.8	-0.5	7.9	34.3	0.0	-1.5	74
Mother's education[7]												
No schooling	20.8	47.6	-1.9	2.7	11.3	1.4	-0.7	9.5	34.2	0.1	-1.6	711
Primary	13.0	40.4	-1.7	2.7	11.7	1.6	-0.8	6.6	28.7	0.1	-1.5	2,072
Secondary and higher	7.4	30.7	-1.4	1.9	9.7	2.2	-0.6	4.0	20.7	0.3	-1.2	897
Wealth quintile												
Lowest	20.6	51.1	-2.0	2.7	11.9	1.5	-0.8	9.4	35.4	0.2	-1.7	1,041
Second	14.7	44.4	-1.8	3.0	9.6	1.6	-0.7	7.0	32.6	0.0	-1.5	811
Middle	12.2	39.3	-1.6	1.7	11.5	0.4	-0.7	6.9	27.8	0.0	-1.5	744
Fourth	10.2	34.2	-1.5	2.5	11.1	2.0	-0.7	5.8	24.6	0.2	-1.4	754
Highest	6.2	23.1	-1.1	2.5	10.1	2.9	-0.5	2.4	15.9	0.5	-1.0	625
Total	13.6	39.9	-1.7	2.5	10.9	1.6	-0.7	6.7	28.3	0.2	-1.4	3,975

Note: Table is based on children who spent the night before the interview in the household. 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 1977 NCHS/CDC/WHO reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.

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

[3] Excludes children whose mothers were not interviewed

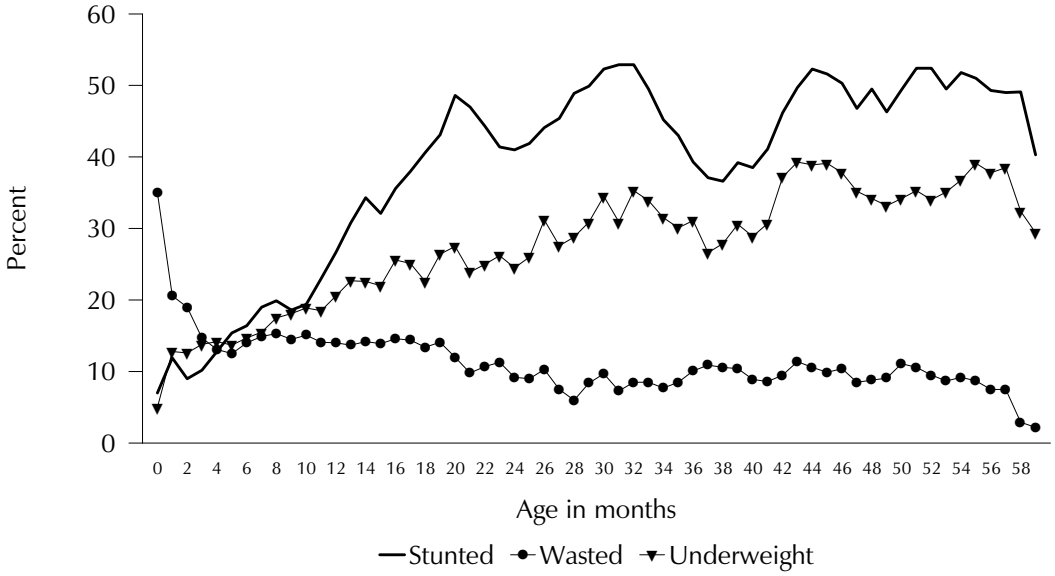
[4] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

[5] Includes children whose mothers are deceased

[6] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of body mass index (BMI) is presented in Table 14.10.

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

Figure 14.1 Nutritional Status of Children by Age



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

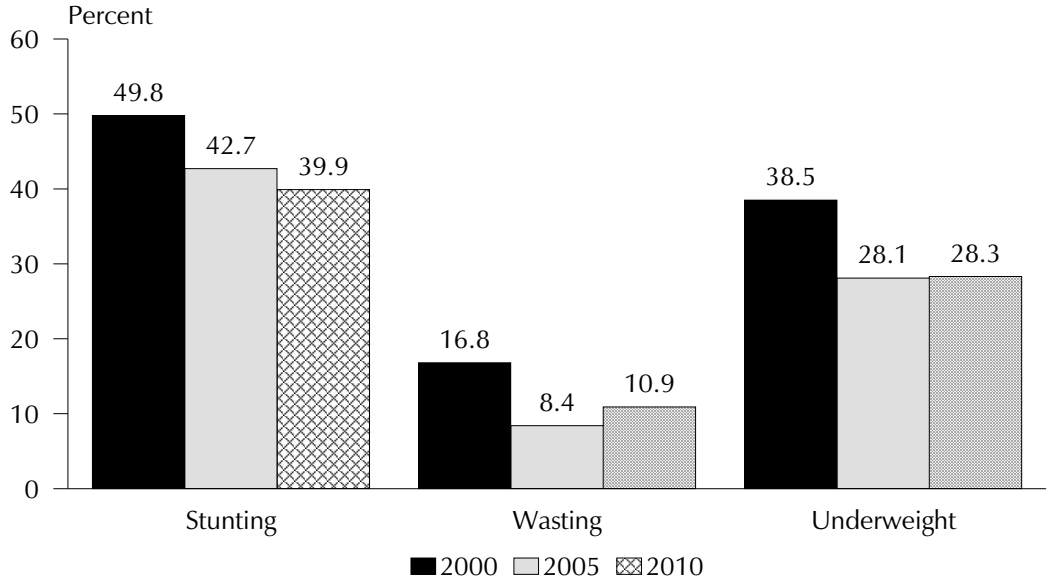
CDHS 2010

14.1.3 Trends in Children's Nutritional Status

Trends in children's nutritional status for the period 2000 to 2010 are shown in Figure 14.2. To allow assessment of trends, the data for 2000 and 2005 were recalculated using the 2006 WHO Child Growth Standards. Figure 14.2 shows that there have been improvements in the nutritional status of children in the past 10 years. The percentage of children stunted fell from 50 percent in 2000 to 40 percent in 2010. The percentage of children wasted declined from 17 percent in 2000 to 8 percent in 2005 but then increased slightly to 11 percent in 2010. Underweight declined from 39 percent in 2000 to 28 percent in 2005 and remained the same in 2010.

Although there have been improvements in the nutritional status of Cambodian children in the past decade, there is still a need for more intensive interventions.

Figure 14.2 Trends in Nutritional Status of Children under Five Years



Based on WHO Child Growth Standards

14.2 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 uterus contract 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 14.2 shows the percentage of all children born in the two years before the survey by breastfeeding status and the timing of initial breastfeeding, according to background characteristics. In the 2000 CDHS and 2005 CDHS initial breastfeeding data were collected for all children less than 5 years of age, and thus caution should be exercised in comparing the results of the 2010 CDHS with previous survey results.

Ninety-six percent of children born in the two years preceding the survey were breastfed at some point of time. Young children living in rural areas at the time of the survey are more likely to be breastfed than children living in urban areas. The proportion of children ever breastfed ranges from a low of 93 percent in Mondol Kiri/Rattanak Kiri to a high of 99 percent in Pursat and Prey Veng. Children in the lowest wealth quintile are more likely to be breastfed (98 percent) than children in the highest wealth quintile (90 percent).

Approximately two in three children are breastfed within one hour of birth (66 percent), and 86 percent are breastfed within one day of birth. Nineteen percent of children receive a prelacteal feed, that is, something other than breast milk during the first three days of life.

Table 14.2 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth; and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Cambodia 2010

	Among last-born children born in the past two years:				Among last-born children born in the past two years who were ever breastfed:	
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	96.4	63.4	84.5	1,633	20.4	1,574
Female	96.2	68.3	87.4	1,554	17.7	1,495
Assistance at delivery						
Health professional[3]	96.1	68.0	87.4	2,525	17.3	2,426
Traditional birth attendant	97.2	58.0	81.1	644	25.3	626
Other	92.0	36.7	53.3	11	75.1	10
Place of delivery						
Health facility	96.0	69.3	87.4	2,111	17.8	2,026
At home	96.9	59.3	83.4	1,056	21.4	1,023
Residence						
Urban	92.5	64.4	82.6	508	25.8	470
Rural	97.0	66.1	86.5	2,679	17.8	2,599
Province						
Banteay Mean Chey	96.6	71.8	86.8	126	24.7	122
Kampong Cham	94.5	44.7	76.1	349	21.4	329
Kampong Chhnang	97.0	44.8	94.5	132	12.4	128
Kampong Speu	98.3	76.1	92.1	187	19.2	183
Kampong Thom	96.9	67.2	83.5	152	14.0	148
Kandal	95.7	66.5	83.8	306	27.4	293
Kratie	94.4	73.5	85.5	91	10.6	86
Phnom Penh	94.4	67.3	86.5	259	21.8	245
Prey Veng	98.7	73.2	94.4	288	10.6	284
Pursat	99.2	90.1	97.3	116	8.1	115
Siem Reap	96.9	63.6	86.4	222	12.2	215
Svay Rieng	97.9	75.4	90.7	116	2.9	114
Takeo	97.9	66.8	90.8	206	24.4	202
Otdar Mean Chey	98.3	85.5	93.2	42	12.1	41
Battambang/Pailin	94.5	73.9	82.7	235	24.9	222
Kampot/Kep	95.6	49.8	79.6	130	33.0	124
Preah Sihanouk/Koh Kong	93.9	65.6	80.6	73	36.5	68
Preah Vihear/Steung Treng	96.3	74.1	83.6	88	10.5	84
Mondol Kiri/Rattanak Kiri	93.4	48.3	61.6	69	25.0	65
Mother's education						
No schooling	97.8	63.8	83.8	559	22.0	546
Primary	97.1	66.8	86.9	1,773	18.1	1,722
Secondary and higher	93.7	65.0	85.2	855	19.1	801
Wealth quintile						
Lowest	98.4	65.4	85.7	845	19.0	832
Second	96.6	64.4	86.5	644	17.0	622
Middle	97.6	68.0	90.1	588	13.9	574
Fourth	97.5	69.0	85.7	587	21.5	572
Highest	89.8	62.0	81.0	522	25.3	469
Total	96.3	65.8	85.9	3,187	19.1	3,069

Note: Table is based on children born in the two years preceding the survey regardless of whether the children were living or dead at the time of the interview.
[1] Includes children who started breastfeeding within one hour of birth
[2] Children given something other than breast milk during the first three days of life
[3] Doctor, nurse, or midwife

There is a small difference in the timing of initial breastfeeding by gender of the child; a larger percentage of female than male children are breastfed within one hour and one day. Other background characteristics have important influences on early breastfeeding practices. Early initiation of breastfeeding is more common among children whose mothers were assisted at delivery by a health professional than among children delivered at home. In addition, children born in Pursat are more than

twice as likely to be breastfed within one hour of birth as children born in Kampong Cham and Kampong Chhnang. Differences in early breastfeeding by mother's education and wealth are small.

The proportions of children who receive a prelacteal feed in the first three days of life are higher among those delivered by a traditional birth attendant and at home (25 percent and 21 percent, respectively) than among those attended by a health professional and delivered in a health facility (17 percent and 18 percent, respectively). Children residing in urban areas are more likely than children residing in rural areas to receive a prelacteal feed. One of three children living in Preah Sihanouk/Koh Kong and Kampot/Kep receive a prelacteal feed after birth. The percentage of children who receive a prelacteal feed is higher among those whose mothers have no schooling (22 percent) compared to those whose mothers have primary education (18 percent) and secondary or higher education (19 percent). Nineteen percent of children in the lowest quintile receive a prelacteal feed, as compared with 25 percent of children in the highest wealth quintile.

14.3 BREASTFEEDING STATUS BY AGE

UNICEF and WHO recommend that children be exclusively breastfed during the first six months of life and that children be given solid or semisolid complementary food in addition to continued breastfeeding from six months to 24 months Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all of 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 a harsh socioeconomic environment, supplementary food is often nutritionally inferior.

Information on complementary feeding was obtained by asking mothers about the current breastfeeding status of all children under 2 years of age and food (liquids or solids) given to the child the day and night before the survey.

Table 14.3 Breastfeeding status by age

Percent distribution of youngest children under 2 years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under 2 years using a bottle with a nipple, according to age in months, Cambodia 2010

	Percent distribution of youngest children under 2 living with their mother by breastfeeding status										
Age in months	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming nonmilk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming complementary foods	Total	Percentage currently breast-feeding	Number of youngest children under 2 years	Percentage using a bottle with a nipple	Number of children
0-1	1.9	89.1	3.8	0.0	4.5	0.7	100.0	98.1	190	6.5	193
2-3	3.2	76.0	12.9	1.8	5.4	0.7	100.0	96.8	255	9.4	257
4-5	4.1	59.6	9.4	2.3	6.1	18.4	100.0	95.9	260	23.0	261
6-8	6.0	6.8	4.3	0.0	0.7	82.3	100.0	94.0	411	26.9	414
9-11	6.2	0.3	1.9	0.6	0.0	91.0	100.0	93.8	410	31.3	413
12-17	19.5	0.1	0.3	0.1	0.0	80.0	100.0	80.5	804	27.8	817
18-23	49.6	0.1	0.1	0.0	0.0	50.2	100.0	50.4	747	21.5	797
0-3	2.7	81.6	9.0	1.0	5.0	0.7	100.0	97.3	444	8.1	450
0-5	3.2	73.5	9.2	1.5	5.4	7.2	100.0	96.8	704	13.6	711
6-9	5.5	5.1	3.9	0.4	0.5	84.6	100.0	94.5	555	29.1	560
12-15	16.7	0.1	0.4	0.1	0.0	82.7	100.0	83.3	552	25.6	560
12-23	34.0	0.1	0.2	0.0	0.0	65.7	100.0	66.0	1,551	24.7	1,614
20-23	56.6	0.0	0.0	0.0	0.0	43.4	100.0	43.4	496	21.7	530

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

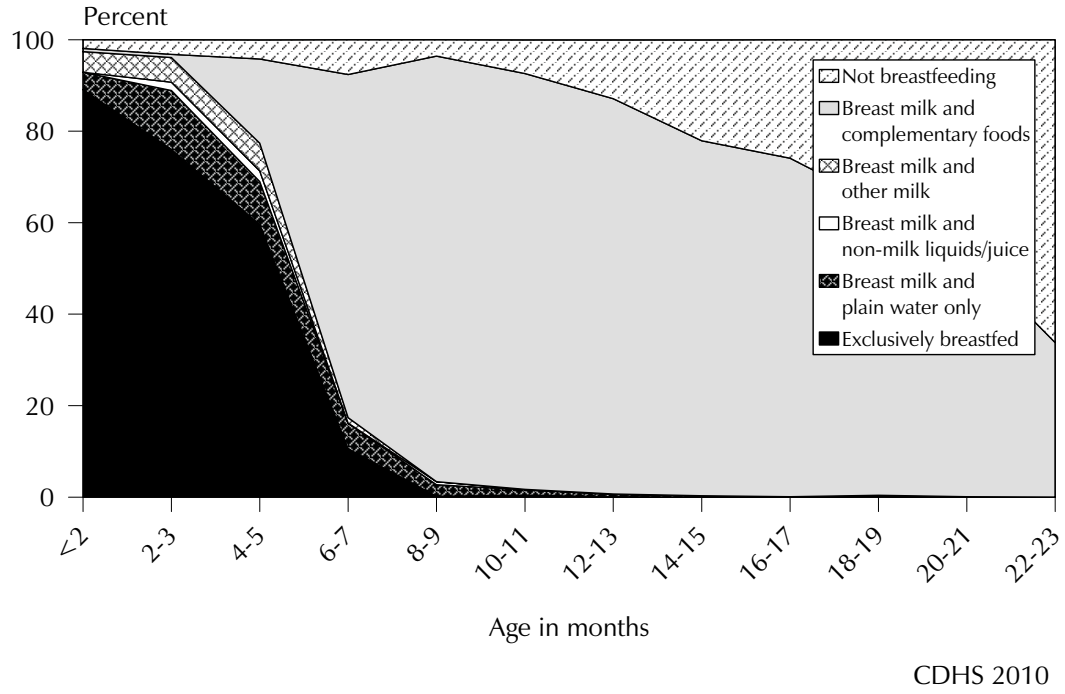
[1] Nonmilk liquids include juice, juice drinks, clear broth, or other liquids.

Table 14.3 shows the percent distribution of youngest children under 2 years living with their mother by breastfeeding status and the percentage of all children under 2 years using a bottle with a nipple, according to age in months. The data presented in Table 14.3 and Figure 14.3 show that, contrary to WHO's recommendations, not all children under 6 months are exclusively breastfed. Sixty percent of Cambodian children age 4-5 months are exclusively breastfed, which is 14 percentage points higher than the exclusive breastfeeding prevalence observed in the 2005 CDHS (46 percent).

Approximately three-fourths of children under 6 months of age are exclusively breastfed, 9 percent consume breast milk and plain water, and 5 percent consume other milk in addition to breast milk. Although 82 percent of children begin eating complementary foods by 6 months, 7 percent of children continue to be exclusively breastfed and 4 percent receive just plain water in addition to breast milk. Only half of Cambodian children continue to breastfeed until the age of 2 years (Table 14.3), and thus half are deprived of valuable nutrients during this period. Exclusive breastfeeding quickly declines from birth to age 6-8 months. However, a few infants are still exclusively breastfed beyond this age, which is not recommended. Although other liquids are not needed before 6 months, 11 percent of infants under 6 months receive water or other liquids with milk.

The prevalence of bottle feeding among Cambodian children age 6 months and above has almost doubled in comparison with data from the 2005 CDHS. Twenty-five percent of children 12-23 months of age were fed with a bottle in 2010, as compared with 12 percent in 2005. In Cambodia the bottle is used for feeding breast milk substitutes (which are most often formula or sweetened condensed milk or other canned milk usually thinned out with water) or very watery rice porridge (*borbor*), both of which are contraindicated and not.

Figure 14.3 Infant Feeding Practices by Age



CDHS 2010

14.4 DURATION OF BREASTFEEDING

Table 14.4 shows the median duration of breastfeeding by selected background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of last-born children in the three years preceding the survey who were being breastfed at the time of the survey.

Table 14.4 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Cambodia 2010

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]		
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding[2]
Sex			
Male	20.1	4.2	4.9
Female	19.4	4.3	5.1
Residence			
Urban	17.3	4.5	5.0
Rural	20.2	4.2	5.0
Province			
Banteay Mean Chey	19.0	4.7	5.3
Kampong Cham	15.7	4.4	5.5
Kampong Chhnang	22.4	4.3	4.5
Kampong Speu	21.2	4.6	4.9
Kampong Thom	16.6	4.7	5.1
Kandal	20.1	2.2	3.9
Kratie	19.0	5.1	5.7
Phnom Penh	14.3	3.2	4.4
Prey Veng	21.5	4.8	5.3
Pursat	20.2	3.4	4.8
Siem Reap	18.3	5.0	5.6
Svay Rieng	24.0	5.5	5.9
Takeo	21.8	4.4	5.6
Otdar Mean Chey	16.0	5.1	5.4
Battambang/Pailin	18.5	3.6	4.3
Kampot/Kep	22.1	4.1	4.6
Preah Sihanouk/Koh Kong	18.3	4.6	5.1
Preah Vihear/Steung Treng	20.7	3.5	4.7
Mondol Kiri/Rattanak Kiri	19.7	3.7	4.1
Mother's education			
No schooling	22.7	4.1	5.3
Primary	19.8	4.3	5.1
Secondary and higher	18.5	4.2	4.6
Wealth quintile			
Lowest	20.7	3.9	4.9
Second	21.0	4.6	5.4
Middle	19.7	4.7	4.9
Fourth	19.9	4.3	5.1
Highest	16.2	3.8	4.5
Total	19.8	4.3	5.0
Mean for all children	20.3	4.9	5.6

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 children living and deceased at the time of the survey.
[1] It is assumed that non-last-born children and last-born children not currently living with their mother are not currently breastfeeding.
[2] Either exclusively breastfed or received breast milk and plain water and/or nonmilk liquids only

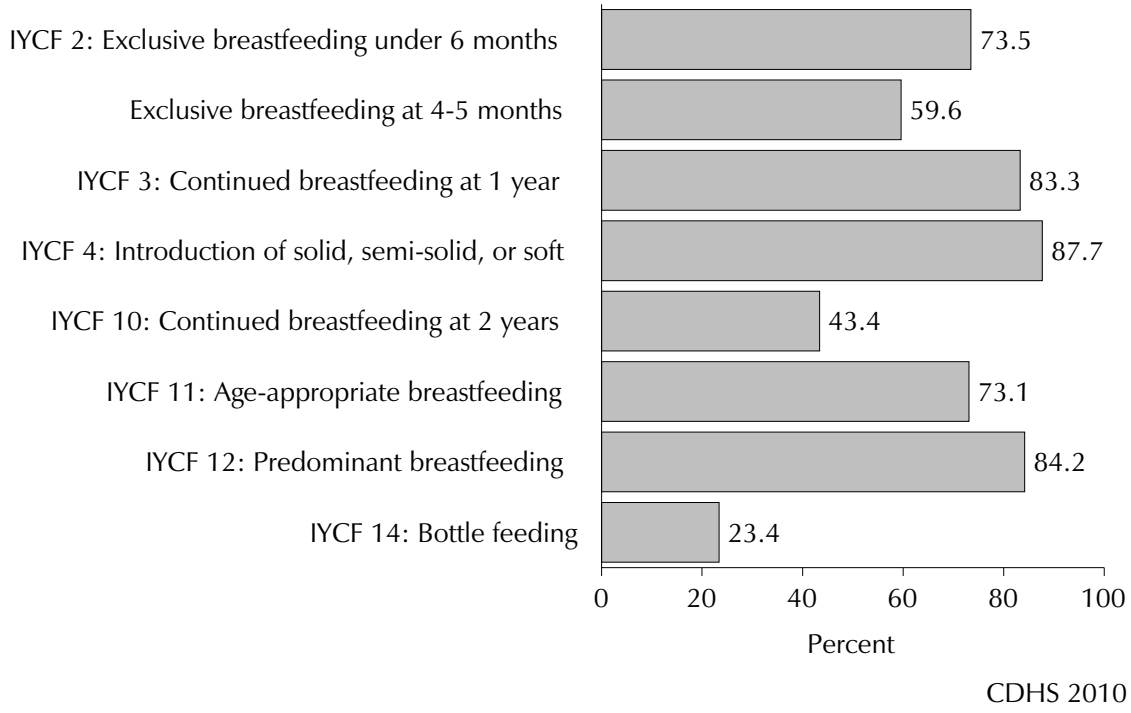
The median duration of any breastfeeding is 19.8 months, and the mean duration is 20.3 months. There is little difference in duration of breastfeeding by sex of the child. Rural children are breastfed for a slightly longer duration than urban children (20.2 months versus 17.3 months). Highly educated mothers breastfeed their children for a duration of 4 months less than mothers with little or no education; mothers from the highest wealth quintile breastfeed their children for 16.2 months, as

compared with 20.7 months among mothers in the lowest wealth quintile. Children in Svay Rieng are breastfed for 24 months, whereas children in Phnom Penh are breastfed for 14.3 months.

The median duration of exclusive breastfeeding among Cambodian children is 4.3 months, and the mean duration is 4.9 months. In comparison with the 2005 CDHS, the median duration of any breastfeeding has decreased by one month, whereas exclusive breastfeeding has increased by a month.

Breastfeeding status is part of the current set of infant and young child feeding (IYCF) indicators proposed by WHO. Figure 14.4 presents selected IYCF indicators on breastfeeding status in 2010.

Figure 14.4 IYCF Indicators on Breastfeeding Status



14.5 Types of Complementary Foods

UNICEF and WHO recommend the introduction of solid food to infants at approximately 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 (ages 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices.

Table 14.5 provides information on the types of food given to the youngest child under 2 years of age living with the mother on the day and night preceding the survey, according to breastfeeding status. The data show that few breastfeeding infants receive infant formula or any other kinds of milk (5 percent and 6 percent, respectively). However, 15 percent of younger breastfeeding infants (4-5 months) are already consuming food made from grains, and 8 percent consume food made from meat, fish, poultry, and eggs.

Table 14.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under 2 years of age who are living with their mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Cambodia 2010

	Liquids			Solid or semisolid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vege-tables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, and poultry	Eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Number of children
BREASTFEEDING CHILDREN														
0-1	3.6	3.1	0.8	0.0	0.8	0.5	0.5	0.5	0.5	0.8	0.3	0.0	0.8	186
2-3	4.2	2.3	2.0	0.0	0.6	0.2	0.0	0.2	0.3	0.3	0.3	0.0	0.7	247
4-5	8.0	4.0	6.6	0.6	14.8	5.1	1.1	0.5	0.0	6.2	1.6	0.0	19.2	249
6-8	3.6	5.4	24.8	2.9	79.7	31.9	8.6	8.5	3.4	42.3	21.4	0.1	87.5	387
9-11	4.1	7.3	38.4	2.8	90.4	56.1	13.2	15.2	4.8	67.9	33.5	1.2	97.1	384
12-17	5.6	8.8	41.4	3.8	94.1	67.9	22.7	15.7	8.6	86.4	37.9	2.4	99.4	647
18-23	3.4	8.1	45.0	3.9	96.4	70.9	24.7	18.2	8.2	90.2	37.2	2.6	99.7	377
6-23	4.4	7.6	37.9	3.4	90.7	58.3	18.0	14.6	6.6	73.7	33.3	1.7	96.4	1,794
Total	4.7	6.4	28.4	2.5	67.3	42.8	13.2	10.7	4.8	54.1	24.3	1.2	71.9	2,476
NONBREASTFEEDING CHILDREN														
0-1	*	*	*	*	*	*	*	*	*	*	*	*	*	4
2-3	*	*	*	*	*	*	*	*	*	*	*	*	*	8
4-5	*	*	*	*	*	*	*	*	*	*	*	*	*	11
6-8	(57.1)	(42.0)	(36.8)	(0.0)	(79.2)	(20.2)	(15.7)	(0.0)	(11.5)	(44.2)	(18.8)	(13.2)	(91.5)	25
9-11	(61.2)	(32.1)	(35.8)	(14.6)	(89.5)	(57.2)	(35.1)	(10.7)	(12.5)	(75.8)	(51.6)	(9.1)	(95.7)	26
12-17	41.0	21.4	44.6	12.7	96.8	54.8	21.4	12.9	4.7	75.0	38.1	2.9	100.0	157
18-23	13.0	15.9	47.3	8.9	92.6	71.0	29.9	19.1	8.8	88.1	38.1	1.6	99.5	371
6-23	24.6	19.2	45.6	9.8	93.0	63.8	27.2	16.2	8.0	82.1	37.9	2.7	99.1	578
Total	25.5	19.7	44.6	9.4	89.6	61.4	26.2	15.6	7.7	79.0	36.4	2.6	95.5	600

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night).
An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes fresh, tinned, and powdered animal milk
[2] Does not include plain water. Includes juice, juice drinks, clear broth, or other nonmilk liquids.
[3] Includes fortified baby food
[4] Includes pumpkin, carrots, squash, or sweet potatoes; any dark green leafy vegetables; and mangoes and papayas

Overall, 96 percent of breastfed children age 6-23 months receive solid or semisolid complementary foods in addition to breast milk. Consumption of foods made from grains (91 percent), animal sources of food (meat, fish, and poultry) (74 percent), and fruits and vegetables rich in vitamin A (58 percent) is high. Consumption of food made from roots or tubers and food made from beans, peas, or nuts is low.

Comparing dietary intake of children by their breastfeeding status, a higher proportion of solid and semisolid foods are being consumed by nonbreastfed children. Approximately 25 percent of nonbreastfeeding children receive infant formula and 19 percent receive other types of milk in addition to solid foods, both of which are essential because these children are not benefiting from breast milk. A larger percentage of nonbreastfed children age 6-23 months than breastfed children in the same age group are receiving grains, fruits and vegetables rich in vitamin A, and meat, fish, poultry, and eggs.

14.6 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding solid and semisolid foods from age 6 months and increasing the amount and variety of foods and frequency of feeding as the child gets older while maintaining frequent breastfeeding (WHO, 2008).

The age ranges of various indicators of IYCF practices presented in this chapter have been updated based on the most recent definitions of breastfeeding and complementary feeding indicators (WHO, 2010). Therefore, to compare results with the 2005 CDHS, one needs to first check that indicator definitions and age ranges of sampled children are the same across surveys.

Table 14.6 presents a summary indicator of IYCF practices. The indicator takes into account the percentages of children for whom feeding practices meet minimum standards with respect to food diversity (i.e., the number of food groups consumed), feeding frequency (i.e., the number of times the child is fed), and consumption of breast milk or other types of milk or milk products (accounting for number of milk feedings for nonbreastfed children). Breastfed children are considered to be fed within the minimum standards if they consume at least four food groups and receive food other than breast milk two to three times per day in the case of infants 6-8 months and three to four times per day in the case of children 9-23 months (Arimond and Ruel, 2003). Nonbreastfed children are considered to be fed in accordance with the minimum standards if they consume milk or milk products at least twice a day, are fed four food groups each day, and are fed at least four to five times per day (including milk feeds). Meal frequency is considered a proxy for energy intake from foods other than breast milk; therefore, the feeding frequency indicator for nonbreastfed children includes both milks and solid and semisolid foods (WHO, 2008).

According to the results presented in Table 14.6, 34 percent breastfed children age 6-23 months were given foods from four or more food groups in the 24 hours preceding the survey, and 79 percent were fed the minimum number of times in the preceding 24 hours. Almost 3 in 10 (28 percent) breastfed children fell into both categories; that is, their feeding practices met minimum standards with respect to food diversity as well as feeding frequency. The proportion of breastfed children receiving the recommended variety of food the minimum number of times a day increased with age, from 14 percent among children age 6-8 months to 38 percent among those age 18-23 months. The proportions of breastfed children who met both criteria did not vary by either sex or residence. There were large regional differences in feeding practices. Children residing in Preah Vihear/Steung Treng were 10 times less likely than children in Kampong Speu, Prey Veng, Pursat, Kampot/Kep, and Banteay Mean Chey to be fed from four or more food groups the minimum number of times a day. The proportions of breastfed children meeting the IYCF criteria were highest among children of mothers with a secondary education or higher (40 percent) and those in the fourth and highest wealth quintiles (32-35 percent).

Among nonbreastfed children age 6-23 months, 31 percent were given milk or milk products, 48 percent were given food from at least four food groups, and 42 percent were fed four or more times per day. However, only 5 percent were fed in accordance with all three IYCF practices. Appropriate feeding practices were more common among breastfed children than nonbreastfed children.

Overall, 24 percent of Cambodian children age 6-23 months met the minimum standard with respect to all three IYCF feeding practices (Table 14.6). The most common problem with feeding practices was an inadequate number of food groups. Eighty-three percent of all children age 6-23 months received breast milk or other milk or milk products during the 24-hour period before the survey, and 70 percent were fed the minimum number of times in the preceding 24 hours. However, only 37 percent had been fed foods from the minimum number of food groups for their age.

Table 14.6 Infant and young child feeding (IYCF) practices

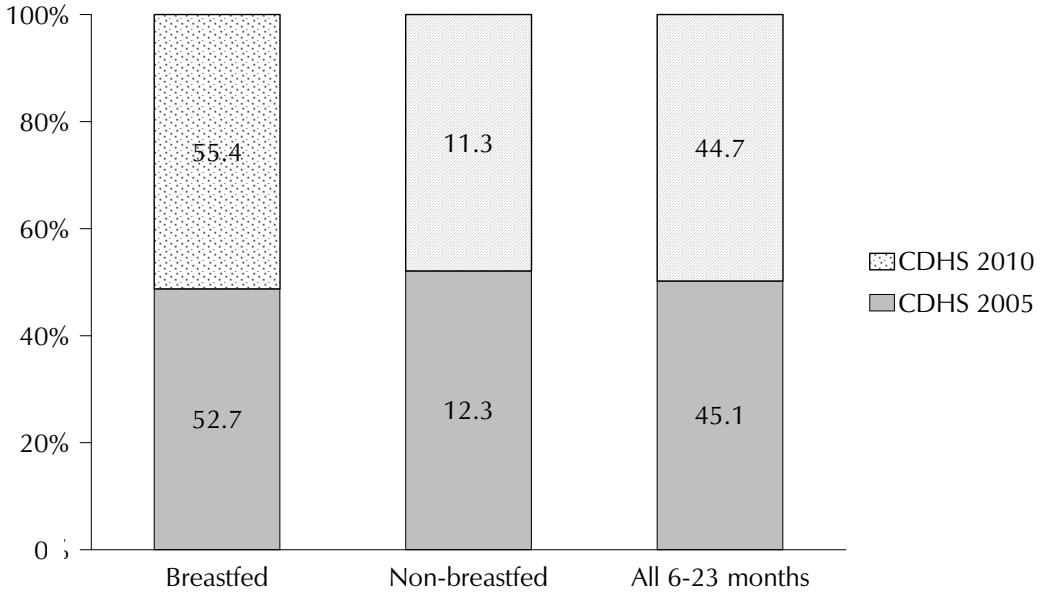
Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, Cambodia 2010

	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:				
Background characteristic	4+ food groups[1]	Minimum times or more[2]	Both 4+ food groups and minimum times or more	Number of breastfed children 6-23 months	Milk or milk products[3]	4+ food groups	4+ times or more	With all 3 IYCF practices[4]	Number of non-breastfed children 6-23 months	Breast-milk, milk, or milk products[3]	4+ food groups	Minimum times or more[5]	With all 3 IYCF practices	Number of all children 6-23 months
Age in months														
6-8	15.4	81.4	14.3	387	(61.5)	(41.4)	(76.1)	(0.3)	25	97.7	16.9	81.1	13.5	411
9-11	26.7	71.5	20.6	384	(67.8)	(65.6)	(78.5)	(29.3)	26	98.0	29.2	71.9	21.1	410
12-17	42.6	77.7	35.6	647	49.5	46.8	71.4	12.9	157	90.1	43.4	76.5	31.2	804
18-23	43.3	84.4	37.5	377	19.0	46.9	55.4	9.5	371	59.8	45.1	70.0	23.6	747
Sex														
Male	33.6	76.8	28.0	968	28.5	52.1	64.1	9.3	266	84.6	37.5	74.0	24.0	1,234
Female	33.4	80.7	28.4	826	33.6	43.6	59.6	12.4	312	81.8	36.2	74.9	24.0	1,138
Residence														
Urban	33.9	81.0	28.9	223	68.7	47.4	78.9	17.5	162	86.8	39.6	80.1	24.1	385
Rural	33.4	78.2	28.1	1,571	16.7	47.5	54.9	8.4	416	82.6	36.4	73.4	24.0	1,987
Province														
Banteay Mean Chey	42.6	75.5	36.5	69	(29.9)	(59.4)	(36.8)	(15.7)	26	80.9	47.2	64.9	30.8	94
Kampong Cham	27.3	77.5	19.7	188	(10.1)	(40.4)	(53.6)	(2.3)	67	76.4	30.7	71.2	15.1	255
Kampong Chhnang	23.7	90.1	22.8	77	(9.7)	(45.2)	(40.6	(2.7)	18	82.6	27.9	80.6	18.9	96
Kampong Speu	42.3	85.6	37.1	113	(35.3)	(51.5)	(72.9)	(22.5)	35	84.6	44.5	82.5	33.6	148
Kampong Thom	35.1	79.7	32.0	80	(15.5)	(46.1)	(45.4)	(5.7)	30	76.9	38.1	70.3	24.8	110
Kandal	37.6	84.2	31.9	186	*	*	*	*	43	85.7	37.7	82.5	28.3	229
Kratie	11.0	73.6	10.6	49	(20.6	(26.5)	(73.3)	(3.0)	18	78.5	15.2	73.5	8.6	66
Phnom Penh	23.1	76.8	18.9	107	75.9	40.0	85.8	8.7	96	88.6	31.1	81.1	14.1	203
Prey Veng	38.7	93.2	37.8	181	*	*	*	*	29	88.6	42.2	93.2	32.8	210
Pursat	38.1	92.8	36.8	67	(11.5)	(51.9)	(60.3)	(10.6)	16	83.3	40.7	86.6	31.9	83
Siem Reap	29.5	86.6	29.5	127	(25.0)	(51.5)	(61.0)	(15.3)	46	80.1	35.3	79.8	25.7	173
Svay Rieng	31.3	61.3	23.3	76	*	*	*	*	11	88.7	32.5	58.7	21.7	87
Takeo	34.6	69.9	28.1	138	*	*	*	*	22	88.2	37.0	66.7	25.1	159
Otdar Mean Chey	51.7	64.3	33.8	22	(10.0)	(63.4)	(39.7)	(4.6	10	72.1	55.3	56.7	24.7	32
Battambang & Pailin	47.0	54.1	26.9	118	(27.8)	(55.4)	(31.3)	(18.7)	53	77.7	49.6	47.0	24.4	171
Kampot & Kep	43.0	77.1	38.0	75	*	*	*	*	21	86.0	44.8	77.0	32.0	96
Preah Sihanouk & Koh Kong	37.9	81.7	33.5	39	(72.8)	(85.1)	(85.5)	(53.1)	15	92.5	50.9	82.7	38.9	54
Preah Vihear & Steung Treng	3.3	71.8	3.1	48	(13.1)	(33.5)	(24.6)	(1.3)	11	83.8	8.9	63.1	2.7	59
Mondol Kiri & Rattanak Kiri	17.7	62.9	14.4	36	(24.4)	(31.3)	(47.8)	(7.6)	12	81.4	21.1	59.2	12.7	48
Mother's education														
No education	22.1	72.0	16.4	338	15.5	42.5	47.1	4.2	62	86.9	25.2	68.1	14.5	399
Primary	32.9	77.6	27.4	1,033	16.0	41.0	51.9	5.7	301	81.1	34.7	71.8	22.5	1,333
Secondary+	44.0	86.3	39.5	424	57.0	58.0	79.5	20.2	215	85.5	48.7	84.0	33.0	639
Wealth quintile														
Lowest	28.7	75.7	22.4	502	2.9	41.6	46.5	1.4	104	83.3	30.9	70.6	18.8	606
Second	31.3	78.1	27.5	377	11.5	41.8	54.1	2.4	93	82.4	33.4	73.3	22.5	470
Middle	31.0	84.1	28.8	359	14.3	42.2	43.4	4.6	102	81.1	33.5	75.1	23.5	460
Fourth	43.4	75.6	34.7	344	21.1	46.6	63.5	8.9	93	83.2	44.1	73.0	29.2	437
Highest	36.8	81.9	31.5	213	71.4	57.0	83.1	25.1	186	86.7	46.2	82.5	28.5	398
Total	33.5	78.6	28.2	1,794	31.3	47.5	61.7	10.9	578	83.3	36.9	74.5	24.0	2,372

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[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.
[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 two or more feedings of commercial infant formula; fresh, tinned, and powdered animal milk; and yogurt
[4] Nonbreastfed children ages 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 (2 or more times) and are fed solids and semisolids at least the minimum number of times per day with at least the minimum number of food groups. The milk group is excluded from the calculations of minimum number of food groups for the nonbreastfed children in this column.
[5] Fed solid or semisolid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for nonbreastfed children

As described above, indicator definitions related to IYCF practices have changed since the 2005 CDHS. Therefore, direct results from Table 14.6 cannot be compared with tables in the 2005 CDHS report. A comparison of the IYCF data from the 2005 CDHS and 2010 CDHS is presented in Figure 14.5. There has not been much improvement in complementary feeding practices since 2005.

Figure 14.5 Trends in the Infant and Young Child Feeding (IYCF) Practices



Based on the old IYCF definitions used in CDHS 2005

14.7 Prevalence of Anemia in Children

Common causes of anemia, characterized by a low level of hemoglobin in the blood, include inadequate intake of iron, folate, vitamin B_{12}, and other nutrients. Anemia can also result from thalassemia, sickle cell disease, malaria, and intestinal worm infestation. Anemia may be an underlying cause of maternal mortality, spontaneous abortion, premature birth, and low birth weight. Iron and folic acid supplementation and antimalarial prophylaxis for pregnant women, promotion of the use of insecticide-treated bednets by pregnant women and children under 5, and six-month deworming for children are some important measures used to reduce anemia prevalence among vulnerable groups.

Table 14.7 shows the prevalence of anemia among children 6 to 59 months of age according to selected background characteristics. Unadjusted (i.e., measured) values of hemoglobin were obtained using the HemoCue instrument. Given that hemoglobin requirements differ substantially depending on altitude, an adjustment to sea-level equivalents is typically made before classifying children by level of anemia. Based on the altitude information derived from the clusters surveyed for the 2010 CDHS, no adjustment was required in the measured hemoglobin values.

Anemia is a critical public health problem in Cambodia, where more than half (55 percent) of children 6-59 months old are anemic, with 28 percent mildly anemic, 26 percent moderately anemic, and 1 percent severely anemic. Anemia is highest among children age 9-11 months (86 percent), followed by children age 12-17 months (82 percent). Rural children are more likely (57 percent) to be anemic than urban children (45 percent). Prevalence of anemia among children in the different provinces ranges from a low of 39 percent in Pursat to a high of 66 percent in Svay Rieng. Children of uneducated mothers and those residing in the poorest households are more likely than other children to be anemic. For example, 60 percent of children in the lowest wealth quintile are anemic, as compared with 43 percent of children in the highest wealth quintile.

Table 14.7 Prevalence of anemia in children

Percentage of children age 6-59 months classified as having anemia, by background characteristics, Cambodia 2010

Background characteristic	Any anemia	Anemia status by hemoglobin level: Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (<7.0 g/dl)	Number of children
Age in months					
6-8	80.7	29.7	51.0	0.0	221
9-11	86.2	24.6	59.0	2.5	190
12-17	81.8	28.0	50.0	3.8	418
18-23	69.9	34.8	34.9	0.2	415
24-35	46.4	26.9	19.1	0.4	835
36-47	41.7	27.9	13.5	0.3	771
48-59	41.2	26.6	14.1	0.5	827
Sex					
Male	57.4	28.3	28.1	1.1	1,909
Female	52.5	28.0	23.8	0.6	1,768
Mother's interview status					
Interviewed	55.9	28.0	27.0	0.8	3,295
Not interviewed but in household	52.0	29.6	22.4	0.0	85
Not interviewed and not in household[1]	46.9	28.8	16.7	1.3	296
Residence					
Urban	44.7	26.4	17.8	0.5	548
Rural	56.9	28.4	27.5	0.9	3,129
Province					
Banteay Mean Chey	49.9	25.0	24.6	0.3	157
Kampong Cham	54.8	28.8	24.9	1.1	452
Kampong Chhnang	63.5	32.7	30.4	0.4	172
Kampong Speu	53.6	23.1	30.5	0.0	208
Kampong Thom	65.3	28.2	35.3	1.8	197
Kandal	56.4	26.6	29.1	0.7	362
Kratie	60.7	33.9	25.1	1.6	110
Phnom Penh	47.8	31.0	16.4	0.4	282
Prey Veng	52.1	26.6	24.8	0.6	310
Pursat	39.4	21.1	18.3	0.0	122
Siem Reap	60.0	26.8	31.5	1.7	244
Svay Rieng	65.5	34.4	31.1	0.0	129
Takeo	54.3	22.8	31.5	0.0	232
Otdar Mean Chey	61.3	36.8	24.5	0.0	44
Battambang/Pailin	53.8	33.1	19.3	1.4	254
Kampot/Kep	49.2	30.2	16.7	2.4	155
Preah Sihanouk/Koh Kong	57.6	31.6	24.3	1.7	80
Preah Vihear/Steung Treng	54.2	24.1	29.0	1.2	97
Mondol Kiri/Rattanak Kiri	53.9	24.4	28.6	0.9	68
Mother's education[2]					
No schooling	57.3	27.3	28.6	1.4	657
Primary	56.9	26.9	29.2	0.8	1,919
Secondary and higher	51.8	31.6	19.9	0.4	804
Wealth quintile					
Lowest	59.6	28.2	30.2	1.2	960
Second	58.8	27.1	30.7	1.0	756
Middle	57.4	29.2	27.8	0.4	681
Fourth	52.2	29.3	21.7	1.2	693
Highest	43.4	26.7	16.5	0.2	587
Total	55.1	28.1	26.1	0.9	3,677

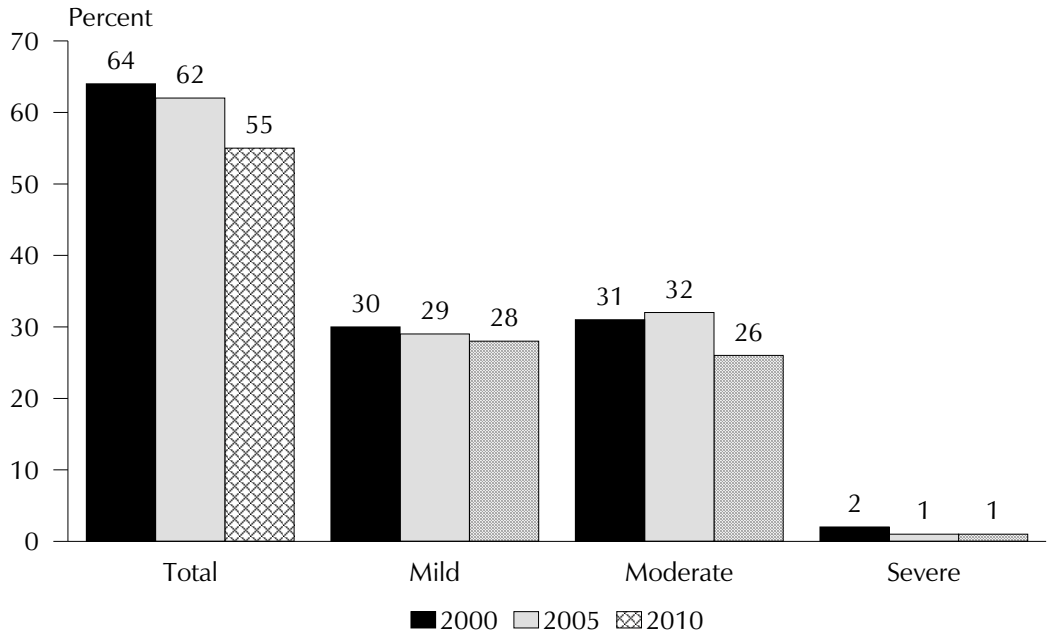
Note: Table is based on children who spent the night before the interview in the household. Hemoglobin in grams per deciliter (g/dl).

[1] Includes children whose mothers are deceased

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

A comparison with the 2005 CDHS shows that the prevalence of anemia has dropped by 7 percent in the past five years, from 62 percent to 55 percent (Figure 14.6). The most noticeable drop has been in the prevalence of moderate anemia, by 6 percentage points (26 percent in 2010 versus 32 percent in 2005). Mild and severe anemia levels have not declined much in the past decade.

Figure 14.6 Trends in Anemia Status among Children under Five Years



14.8 MICRONUTRIENT INTAKE AMONG CHILDREN

A serious contributor to childhood morbidity and mortality is micronutrient deficiency. Children can receive micronutrients from foods, food fortification, and direct supplementation. Table 14.8 looks at measures relating to intake of several key micronutrients among children.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD can also increase the severity of infections such as measles and diarrheal diseases in children and slows recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, red palm oil, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for four to six months. Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD.

In 2009, the National Nutrition Program developed a National Vitamin A Policy that ensures uniform provision of vitamin A to children age 6-59 months. Mebendazol, a deworming drug, is also given to children age 12-59 months. Currently, the vitamin A capsules, together with the Mebendazol, are distributed through outreach sessions held twice annually in May and November. The provisions of iodine and iron are made through salt that is iodized and in fish sauce, soy milk, and common children's snacks that are fortified with iron.

The CDHS collected information on the consumption of foods rich in vitamin A and on the coverage of supplements. Table 14.8 shows that 82 percent of last-born children age 6-23 months living with their mother consumed foods rich in vitamin A in the 24-hour period before the survey. Consumption of foods rich in vitamin A increases from 50 percent among children age 6-8 months to 94 percent among children age 18-23 months. There is no gender difference in the consumption of foods rich in vitamin A. Breastfeeding children are slightly less likely to consume foods rich in vitamin A than nonbreastfeeding children (80 percent versus 87 percent). More than 90 percent of children living in Kampong Chhnang, Kandal, Pursat, Siem Reap, Otdar Mean Chey, and Battambang/Pailin consumed foods rich in vitamin A the day and night preceding the survey. Vitamin A consumption was lowest in Phnom Penh (61 percent).

Seventy-six percent of children consume foods rich in iron. The differences in consumption of iron-rich foods by background characteristics are similar to those seen for consumption of foods rich in vitamin A.

Table 14.8 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey; among all 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 past seven days, and who were given deworming medication in the six months preceding the survey; and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, Cambodia 2010

	Among youngest children age 6-23 months living with their mother:			Among all children age 6-59 months:				Among children age 6-59 months living in households tested for iodized salt	
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage given vitamin A supplements in past 6 months	Percentage given iron supplements in past 7 days	Percentage given deworming medication in past 6 months[3]	Number of children	Percentage living in households with iodized salt[4]	Number of children
Age in months									
6-8	49.8	42.4	411	48.0	0.8	14.6	414	86.4	408
9-11	77.3	68.4	410	62.1	2.1	29.7	413	85.7	402
12-17	89.1	84.1	804	72.5	0.9	47.1	817	85.5	806
18-23	93.9	89.1	747	77.8	2.4	61.6	797	83.6	790
24-35	na	na	na	74.2	2.0	65.0	1,610	83.7	1,585
36-47	na	na	na	71.5	1.2	62.2	1,537	84.3	1,518
48-59	na	na	na	70.8	2.0	63.8	1,514	83.2	1,493
Sex									
Male	82.1	76.4	1,234	69.3	1.4	54.9	3,692	83.7	3,631
Female	81.4	75.1	1,138	72.6	2.0	58.6	3,409	84.7	3,371
Breastfeeding status									
Breastfeeding	80.0	73.7	1,794	66.7	1.3	42.6	2,125	83.9	2,097
Not breastfeeding	87.2	82.0	574	72.7	1.8	62.9	4,956	84.3	4,885
Mother's age at birth									
15-19	69.1	62.5	115	55.8	1.2	32.7	148	82.4	147
20-29	82.5	76.3	1,477	71.5	1.5	57.7	4,014	84.1	3,956
30-39	81.9	76.5	669	72.2	2.2	56.5	2,322	85.3	2,295
40-49	84.8	78.3	111	65.4	1.2	57.1	616	81.6	603
Residence									
Urban	71.9	65.7	385	69.8	4.7	57.9	1,144	96.2	1,135
Rural	83.7	77.7	1,987	71.1	1.1	56.5	5,956	81.9	5,867
Province									
Banteay Mean Chey	77.8	74.1	94	84.6	0.0	70.7	251	88.5	245
Kampong Cham	77.2	71.5	255	77.0	1.0	55.6	882	78.5	862
Kampong Chhnang	93.4	89.7	96	74.8	0.8	68.7	324	98.1	323
Kampong Speu	84.2	83.1	148	72.6	0.1	67.0	424	98.1	424
Kampong Thom	68.6	66.6	110	68.5	2.2	60.2	375	87.7	365
Kandal	91.6	87.9	229	83.9	0.7	58.8	704	87.5	694
Kratie	69.8	60.4	66	58.2	0.2	41.6	211	92.4	210
Phnom Penh	61.0	52.6	203	66.1	8.5	55.4	589	99.6	585
Prey Veng	85.8	80.6	210	57.5	0.6	46.3	512	62.6	512
Pursat	92.3	85.8	83	81.0	2.6	70.1	233	98.3	233
Siem Reap	91.4	81.8	173	73.0	0.4	61.7	519	88.4	519
Svay Rieng	78.8	72.5	87	68.1	5.3	55.9	238	67.5	234
Takeo	76.3	69.8	159	69.9	0.0	46.8	451	65.8	436
Otdar Mean Chey	93.6	80.2	32	67.7	1.9	61.8	92	74.9	91
Battambang/Pailin	92.4	87.4	171	75.5	1.0	64.1	494	88.8	485
Kampot/Kep	87.4	85.7	96	57.9	3.1	44.4	317	58.2	313
Preah Sihanouk/Koh Kong	79.3	71.5	54	68.5	0.7	58.8	154	94.7	154
Preah Vihear/Steung Treng	75.6	56.7	59	59.9	0.7	49.7	189	87.9	179
Mondol Kiri/Rattanak Kiri	77.1	63.5	48	37.4	0.2	23.1	141	93.1	138
Mother's education									
No schooling	77.5	69.3	399	59.7	1.6	45.1	1,293	82.3	1,275
Primary	82.6	76.8	1,333	72.5	1.2	59.3	4,026	81.9	3,966
Secondary and higher	82.8	77.7	639	75.2	2.8	59.2	1,781	90.7	1,761
Wealth quintile									
Lowest	82.5	76.4	606	64.2	1.0	51.8	1,828	80.9	1,786
Second	83.9	75.7	470	71.1	1.1	57.2	1,522	78.9	1,506
Middle	83.9	78.5	460	74.1	1.1	56.7	1,311	80.0	1,286
Fourth	82.9	78.3	437	76.7	1.2	60.2	1,235	88.2	1,229
Highest	74.3	68.9	398	71.1	4.5	59.9	1,204	96.3	1,195
Total	81.8	75.8	2,372	70.9	1.7	56.7	7,100	84.2	7,002

Note: Information on vitamin A is based on both mother's recall and the immunization card (where available). Information on iron supplements and deworming medication is based on the mother's recall.
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, and papaya
[2] Includes meat (and organ meat), fish, poultry, and eggs
[3] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis.
[4] Excludes children in households in which salt was not tested

Seventy-one percent of children age 6-59 months received a vitamin A supplement in the six months before the survey, twice the percentage observed in the 2005 CDHS. Differences in the consumption of vitamin A supplements by gender, area of residence, and wealth quintile were small. Children who were not breastfeeding were more likely to receive vitamin A supplements (73 percent) than children who were breastfeeding (67 percent). Thirty-seven percent of children residing in Mondol Kiri/Rattanak Kiri received vitamin A supplements, as compared with 85 percent of children in Banteay Mean Chey.

Only 2 percent of children age 6-59 months received iron supplementation in the seven days preceding the survey. However, more than half (57 percent) of children received deworming medication in the six months preceding the survey, twice the proportion observed in the 2005 CDHS.

Inadequate amounts of iodine in the diet are related to serious health risks for young children. The 2010 CDHS results show that 84 percent of children 6-59 months live in households using iodized salt. Differences are sizable by area of residence; 96 percent of urban children live in households with iodized salt, as compared with 82 percent of rural children. Almost all children (98 percent or more) in Kampong Chhnang, Kampong Speu, Phnom Penh, and Pursat live in households using iodized salt. Children whose mothers have a secondary education or higher are more likely to live in households with iodized salt (91 percent) than are children whose mothers do not have any formal schooling (82 percent). A similar pattern is seen by wealth quintile.

14.9 USE OF IODIZED SALT

Iodine is an important micronutrient. Dietary iodine deficiencies are a major public health concern worldwide. 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 is the most common cause of preventable mental retardation and brain damage in the world.

In the 2010 CDHS, a rapid test was used to determine the presence or absence of iodine in the salt used for cooking in the household.

Table 14.9 shows the percentage of households using iodized salt. Overall, 83 percent of households have salt with some iodine. A higher percentage of urban households (96 percent) than rural households (80 percent) are using iodized salt. The consumption of iodized salt is lowest in Kampot/Kep (55 percent) and Prey Veng (62 percent). Households in the highest wealth quintile are more likely (95 percent) than households in the lower wealth quintiles to use salt that is adequately iodized.

Table 14.9 Presence of iodized salt in household

Among all households, percentage of households tested for iodine content and percentage of households without salt; and among households with salt tested, the percentage with iodized salt, according to background characteristics, Cambodia 2010

Background characteristic	Among all households, percentage:			Number of households	Among households with tested salt:	
	With salt tested	Without salt	Missing		Percentage iodized salt	Number of households
Residence						
Urban	99.2	0.7	0.1	2,652	95.9	2,631
Rural	98.5	1.4	0.1	13,015	79.9	12,819
Province						
Banteay Mean Chey	95.7	4.1	0.2	656	87.3	628
Kampong Cham	98.1	1.9	0.0	1,913	76.1	1,877
Kampong Chhnang	99.7	0.3	0.0	621	98.4	619
Kampong Speu	99.1	0.8	0.1	869	98.0	861
Kampong Thom	98.5	1.4	0.1	784	90.7	772
Kandal	99.4	0.6	0.0	1,527	86.3	1,518
Kratie	98.2	0.4	1.4	373	92.1	367
Phnom Penh	99.6	0.4	0.1	1,384	99.6	1,378
Prey Veng	99.8	0.2	0.0	1,338	62.4	1,336
Pursat	99.4	0.1	0.4	494	98.9	491
Siem Reap	99.9	0.1	0.0	945	87.4	944
Svay Rieng	98.9	1.1	0.0	687	69.5	680
Takeo	95.8	4.2	0.0	1,101	64.2	1,055
Otdar Mean Chey	99.0	0.6	0.4	200	75.0	198
Battambang/Pailin	98.6	1.4	0.0	1,141	88.0	1,125
Kampot/Kep	98.7	1.3	0.0	774	55.4	764
Preah Sihanouk/Koh Kong	99.7	0.3	0.0	317	94.1	316
Preah Vihear/Steung Treng	95.8	3.6	0.6	331	87.2	317
Mondol Kiri/Rattanak Kiri	96.9	3.1	0.0	209	93.8	203
Wealth quintile						
Lowest	97.7	2.2	0.1	3,203	79.1	3,128
Second	98.3	1.6	0.1	3,277	76.6	3,222
Middle	98.5	1.4	0.1	3,171	78.1	3,123
Fourth	99.4	0.6	0.0	3,052	85.9	3,032
Highest	99.3	0.6	0.1	2,964	94.7	2,945
Total	98.6	1.3	0.1	15,667	82.7	15,449

14.10 NUTRITIONAL STATUS OF WOMEN

The height and weight of women age 15-49 were measured among a 50 percent subsample of households selected in the 2010 CDHS. In this report, two indicators of nutritional status are presented: height and body mass index (BMI).

The height of a woman is associated with past socioeconomic status and nutrition during childhood and adolescence. A woman's height is used to predict the risk of difficulty in delivery because small stature is often associated with small pelvis size and the potential for obstructed labor. The risk of giving birth to a low birth weight baby is influenced by the mother's nutritional status. The cutoff point for the height at which mothers can be considered at risk varies between populations but normally falls between 140 and 150 centimeters. As in other DHS surveys, a cutoff point of 145 cm was used for the 2010 CDHS.

The index used to measure thinness or obesity is known as the body mass index, or the Quetelet index. BMI is defined as weight in kilograms divided by height squared in meters (kg/m^2). A BMI of 18.5 kg/m^2 or lower indicates thinness or acute undernutrition, a BMI of 25.0-29.9 kg/m^2 indicates overweight, and a BMI of 30.0 kg/m^2 or higher indicates obesity.

Table 14.10 presents the mean values of the two indicators of nutritional status and the proportions of women falling into high-risk categories, according to background characteristics. Women for whom there was no information on height and/or weight and for whom a BMI could not

Table 14.10 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, Cambodia 2010

	Height		Body mass index[1]								
Background characteristic	Percentage below 145 cm	Number of women	Mean BMI	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	Number of women
Age											
15-19	6.6	1,853	19.8	69.9	28.3	19.1	9.1	1.8	1.5	0.4	1,790
20-29	5.3	3,244	20.5	75.5	19.4	14.4	5.0	5.1	4.7	0.4	2,887
30-39	7.2	2,109	21.8	70.3	14.5	11.3	3.2	15.3	13.6	1.7	1,989
40-49	6.4	2,106	22.3	62.1	15.1	10.6	4.5	22.8	19.6	3.2	2,091
Residence											
Urban	3.5	1,970	21.6	67.4	16.8	12.1	4.7	15.8	13.6	2.2	1,887
Rural	7.0	7,344	21.0	70.7	19.7	14.2	5.5	9.6	8.5	1.1	6,870
Province											
Banteay Mean Chey	6.9	343	21.7	73.2	11.8	8.2	3.6	15.0	13.6	1.3	319
Kampong Cham	4.8	1,044	21.3	71.5	16.3	12.9	3.4	12.2	10.5	1.7	962
Kampong Chhnang	8.1	373	20.6	75.8	17.8	12.8	5.0	6.4	5.7	0.8	348
Kampong Speu	6.1	534	20.9	71.7	20.5	15.5	5.0	7.8	6.5	1.3	508
Kampong Thom	8.3	458	21.1	71.7	18.5	12.8	5.7	9.8	9.1	0.7	435
Kandal	4.3	924	21.1	65.2	21.7	15.5	6.2	13.1	11.0	2.1	896
Kratie	8.6	227	20.9	69.6	19.7	15.1	4.5	10.7	9.1	1.6	204
Phnom Penh	3.1	1,126	21.4	66.6	18.7	13.8	4.9	14.7	12.7	2.0	1,092
Prey Veng	6.2	675	20.8	66.7	22.4	16.4	6.0	10.9	10.0	1.0	622
Pursat	3.7	274	21.3	73.0	16.6	13.5	3.1	10.5	8.2	2.2	253
Siem Reap	8.8	602	21.0	76.5	16.8	11.7	5.1	6.8	6.2	0.6	554
Svay Rieng	5.5	367	20.3	66.7	26.6	15.7	10.9	6.7	6.1	0.6	351
Takeo	8.7	577	20.7	65.7	25.2	18.1	7.2	9.0	8.5	0.5	543
Otdar Mean Chey	3.9	123	21.4	69.4	18.5	14.9	3.6	12.1	9.9	2.3	116
Battambang/Pailin	6.2	654	21.5	74.0	13.9	9.6	4.3	12.1	10.5	1.6	605
Kampot/Kep	5.7	439	21.2	69.6	18.8	14.0	4.8	11.6	10.9	0.7	416
Preah Sihanouk/Koh Kong	6.5	218	21.3	70.9	15.1	8.8	6.3	14.0	12.7	1.3	206
Preah Vihear/Steung Treng	10.7	217	20.7	74.4	20.3	14.4	5.9	5.3	4.5	0.7	199
Mondol Kiri/Rattanak Kiri	20.7	137	20.7	68.4	23.0	14.9	8.1	8.6	8.0	0.5	128
Education											
No schooling	9.5	1,450	21.3	68.3	18.6	13.1	5.5	13.1	11.9	1.2	1,359
Primary	6.8	4,641	21.3	70.5	17.6	13.0	4.6	11.9	10.3	1.6	4,329
Secondary and higher	3.9	3,222	20.8	70.0	21.3	15.1	6.3	8.7	7.6	1.1	3,069
Wealth quintile											
Lowest	9.9	1,690	20.4	71.9	22.9	16.6	6.3	5.2	4.9	0.3	1,548
Second	7.4	1,771	20.8	70.8	20.8	14.6	6.2	8.5	7.7	0.7	1,663
Middle	5.8	1,749	21.0	72.7	18.4	13.6	4.8	8.9	8.3	0.7	1,614
Fourth	5.5	1,867	21.4	68.8	17.7	13.1	4.5	13.5	11.6	1.9	1,781
Highest	3.6	2,236	21.7	66.9	16.6	11.6	5.0	16.5	13.9	2.6	2,151
Total	6.3	9,313	21.1	70.0	19.1	13.7	5.3	11.0	9.6	1.3	8,757

Note: Body mass index is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding two months

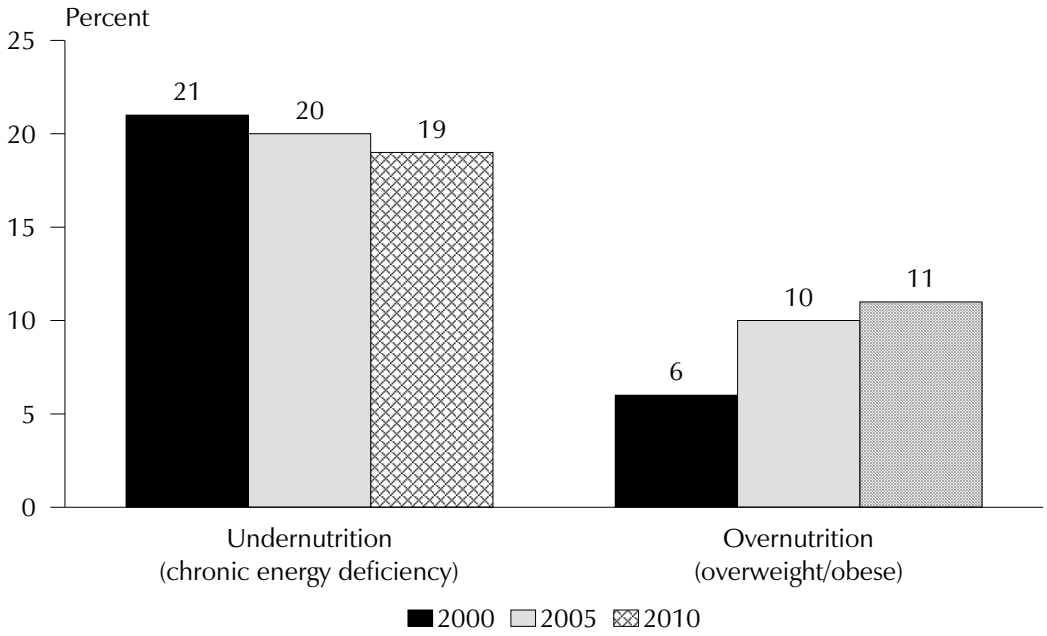
be estimated are excluded from this analysis. The data analysis on BMI is based on 8,757 women, whereas the height analysis is based on 9,313 women. Overall, 6 percent of women are shorter than 145 cm. Women living in rural areas are twice as likely as women living in urban areas to be below 145 cm. A larger percentage of women in Preah Vihear/Steung Treng and Mondol Kiri/Rattanak Kiri are below 145 cm (11 percent and 21 percent, respectively) than women in other provinces. As expected, women with no schooling and those in the lowest wealth quintile are more likely to be shorter than 145 cm.

Table 14.10 shows that there are large differentials across background characteristics in the percentage of women assessed as underweight or thin (BMI less than 18.5) and overweight (BMI 25.0 or higher). Nineteen percent of women are underweight, and 11 percent are overweight or obese. Almost 3 in 10 women age 15-19 are underweight. Women living in rural areas are more likely to have a BMI below 18.5 than women living in urban areas (20 percent versus 17 percent). However, as would be expected, the percentage of overweight or obese women is higher in urban areas (16 percent) than in rural areas (10 percent). Comparisons across provinces show that Svay Rieng (27 percent) and Takeo (25 percent) have the highest percentages of undernourished women, whereas the lowest proportion of undernourished women is found in Banteay Mean Chey (12 percent). The

percentage of overweight or obese women in the highest wealth quintile is more than three times that of the lowest quintile (17 percent versus 5 percent).

A comparison with the 2005 CDHS shows that the proportions of undernourished and overweight or obese women in the reproductive age group have remained about the same (Figure 14.7).

Figure 14.7 **Trends in Nutritional Status among Women 15-49 Years**



Note: Undernutrition BMI <18.5 and overnutrition BMI ≥25.0

14.11 Prevalence of Anemia in Women

Table 14.11 shows the prevalence of anemia among women age 15-49, adjusted for smoking status. Forty-four percent of Cambodian women are anemic, including 37 percent with mild anemia and 7 percent with moderate anemia. Less than 1 percent of women suffer from a severe form of anemia. Anemia is more prevalent among women who are of high parity (more than four children), have little or no education, are pregnant, and live in poor households. Also, anemia is higher among rural women (47 percent) than urban women (35 percent). Women residing in Pursat have the lowest prevalence of anemia (26 percent), and women residing in Svay Rieng have the highest prevalence (62 percent). Anemia prevalence is higher among women who smoke (51 percent) than among women who do not smoke (44 percent).

Table 14.11 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, Cambodia 2010

Background characteristic	Any anemia	Anemia status by hemoglobin level: Mild anemia	Moderate anemia	Severe anemia	Number of women
Age					
15-19	47.8	40.5	7.2	0.1	1,818
20-29	42.1	35.6	6.3	0.1	3,224
30-39	43.1	35.4	7.2	0.6	2,088
40-49	46.2	36.6	9.0	0.6	2,098
Number of children ever born					
0	45.1	37.6	7.2	0.2	3,276
1	44.2	38.0	6.0	0.2	1,306
2-3	40.2	33.5	6.5	0.2	2,616
4-5	47.4	38.0	8.6	0.8	1,294
6+	51.4	40.0	10.6	0.8	739
Maternity status					
Pregnant	52.7	27.6	25.1	0.0	469
Breastfeeding	47.1	40.6	6.4	0.0	1,376
Neither	43.4	36.6	6.3	0.4	7,385
Using IUD					
Yes	43.8	38.7	4.7	0.4	188
No	44.4	36.7	7.4	0.3	9,041
Smoking status					
Smokes cigarettes/tobacco	51.0	36.5	13.3	1.2	698
Does not smoke	43.9	36.8	6.8	0.3	8,530
Missing	0.0	0.0	0.0	0.0	2
Residence					
Urban	35.0	30.7	4.2	0.1	1,943
Rural	46.9	38.4	8.1	0.4	7,287
Province					
Banteay Mean Chey	38.7	32.3	6.3	0.1	338
Kampong Cham	41.4	35.3	5.3	0.8	1,036
Kampong Chhnang	57.1	45.0	11.0	1.2	373
Kampong Speu	46.5	40.1	6.2	0.3	530
Kampong Thom	53.3	42.8	10.2	0.3	456
Kandal	44.9	38.4	6.1	0.4	911
Kratie	55.1	44.2	10.1	0.8	225
Phnom Penh	33.9	30.4	3.5	0.1	1,110
Prey Veng	41.2	35.0	6.3	0.0	679
Pursat	26.3	22.1	3.7	0.6	269
Siem Reap	46.3	36.1	10.0	0.2	601
Svay Rieng	61.9	49.2	11.9	0.8	361
Takeo	45.1	36.4	8.8	0.0	572
Otdar Mean Chey	46.6	40.8	5.3	0.5	123
Battambang/Pailin	53.2	41.4	11.5	0.3	644
Kampot/Kep	38.6	32.3	6.4	0.0	433
Preah Sihanouk/Koh Kong	38.0	31.3	6.5	0.1	217
Preah Vihear/Steung Treng	46.8	37.9	8.3	0.6	216
Mondol Kiri/Rattanak Kiri	47.0	36.4	10.5	0.1	136
Education					
No schooling	48.7	37.9	10.0	0.8	1,449
Primary	46.1	38.2	7.6	0.3	4,601
Secondary and higher	39.9	34.1	5.6	0.2	3,180
Wealth quintile					
Lowest	52.9	41.7	10.7	0.6	1,679
Second	47.8	38.6	8.4	0.7	1,763
Middle	47.0	39.0	7.7	0.4	1,733
Fourth	43.0	36.2	6.7	0.1	1,850
Highest	34.4	30.2	4.1	0.1	2,205
Total	44.4	36.7	7.3	0.4	9,229

Note: Prevalence is adjusted for smoking status using formula in CDC, 1998.

Figure 14.8 Trends in Anemia Status among Women 15-49 Years

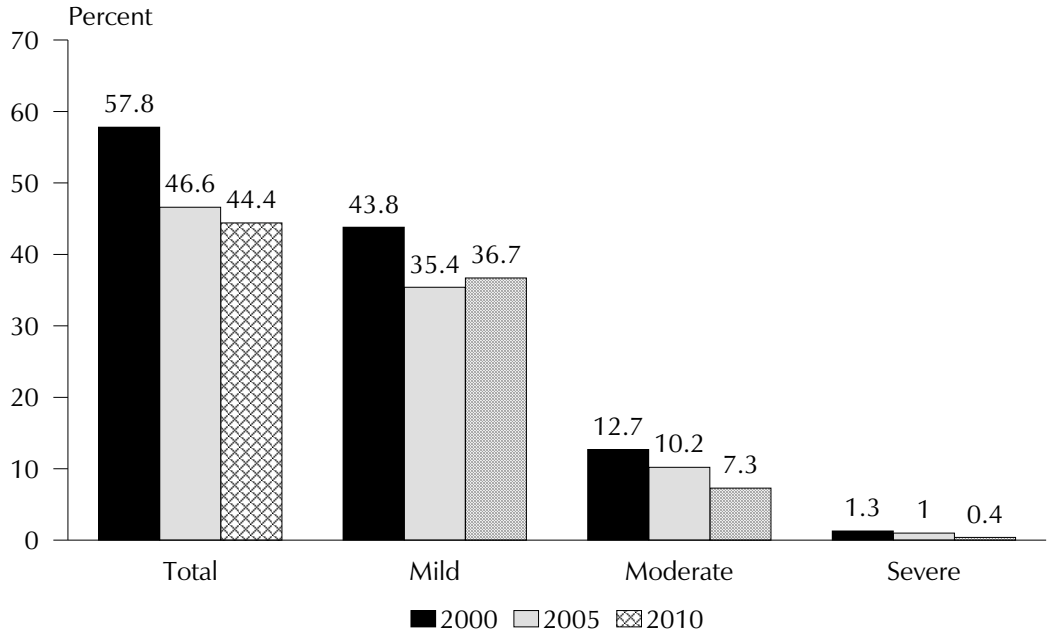


Figure 14.8 indicates that the overall prevalence of anemia has decreased by 13 percentage points since the 2000 CDHS. However, there has been little decline in the rates of moderate and severe anemia. The proportion of mildly anemic women has increased slightly since 2005, which could indicate that there has been a shift in anemia progression from moderate to mild for some women.

14.12 Micronutrient Intake among Mothers

Adequate micronutrient intake by women has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects mother and infant against anemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia. Anemia results in an increased risk of premature delivery and low birth weight as well. Finally, iodine deficiency is also related to a number of adverse pregnancy outcomes.

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

The Ministry of Health has developed and adopted a number of policies and guidelines addressing micronutrient deficiencies in women. These include the National Vitamin A Policy Guidelines (2007 revision) and the National Guidelines for the Use of Iron/Folate Supplementation to Prevent and Treat Anemia in Pregnant and Postpartum Women (2007 revision). Iron/folate supplementation is provided to women during pregnancy (for 90 days) and in the postpartum period (for 42 days). In addition, Mebendazol is given to pregnant women during a prenatal care visit and is followed after delivery within six weeks by a high-dose vitamin A capsule.

Table 14.12 presents the extent to which women receive vitamin A and iron/folate supplements following delivery. Forty-four percent and 45 percent of women reported that they had respectively received vitamin A and iron/folate supplements in the six-week period following the delivery of their last-born child. With regard to iron supplementation during pregnancy, almost 9 of

10 women who gave birth during the five-year period before the 2010 CDHS reported that they had taken iron tablets or syrup during the pregnancy preceding their last live birth. Among women reporting that they took supplements, 57 percent indicated that they took the supplements for more than 90 days, which is recommended. The prevalence of daily iron supplement intake (for 90 days or more) varied by area of residence and province. Pregnant women in urban areas were more likely than those in rural areas to take iron supplements daily for 90 or more days (73 percent compared with 54 percent). The lowest percentages were in Preah Vihear/Steung Treng, Mondol Kiri/Rattanak Kiri, and Kampong Cham (all 33 percent or below), and the highest proportion was in Banteay Mean Chey (72 percent). The percentage of women who took iron supplements increased with increasing education and wealth quintile.

As was the case among children, more than 8 in 10 women live in households with iodized salt. Women residing in Kampot/Kep (57 percent) are least likely to be living in households consuming iodized salt.

Table 14.12 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past five years, the percentage who received a vitamin A dose and iron/folate in the first six weeks after the birth of their last child; among mothers age 15-49, the percentage who during the pregnancy of the last child born in the five years prior to the survey took iron tablets or syrup for specific numbers of days and the percentage who took deworming medication; and among women age 15-49 with a child born in the past five years who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, Cambodia 2010

Background characteristic	Percentage who received vitamin A dose postpartum[1]	Percentage who received iron/folate postpartum[1]	Number of days women took iron tablets or syrup during pregnancy of last birth					Percentage of women who took deworming medication during pregnancy of last birth	Number of women	Among women with a child born in the past five years who live in households that were tested for iodized salt	
			None	<60	60-89	90+	Don't know/ missing			Percentage living in households with iodized salt[2]	Number of women
Age											
15-19	45.1	49.4	6.6	13.9	15.7	60.9	2.9	52.3	196	85.8	195
20-29	45.3	47.6	7.5	14.9	14.0	60.9	2.7	48.0	3,588	83.5	3,538
30-39	42.9	43.0	12.7	16.5	14.4	53.2	3.2	40.4	2,070	84.7	2,040
40-49	37.4	34.2	21.0	19.2	12.0	45.1	2.7	35.0	617	79.5	609
Residence											
Urban	37.3	38.7	4.4	11.6	9.4	73.3	1.2	38.9	1,050	96.4	1,045
Rural	45.0	46.1	11.6	16.6	14.9	53.7	3.2	45.6	5,421	81.0	5,337
Province											
Banteay Mean Chey	40.0	42.7	11.8	7.6	9.0	71.6	0.0	56.5	243	87.5	237
Kampong Cham	30.0	30.7	11.5	32.9	12.8	33.0	9.8	28.7	795	77.3	775
Kampong Chhnang	65.6	65.3	8.5	15.8	26.0	49.6	0.0	73.6	285	97.8	283
Kampong Speu	57.9	60.3	9.6	10.2	12.9	64.9	2.4	61.5	392	97.9	392
Kampong Thom	37.7	37.4	15.2	18.1	18.5	47.9	0.2	40.6	332	88.0	324
Kandal	48.0	39.8	9.5	14.0	12.1	63.1	1.4	34.2	628	86.2	623
Kratie	37.5	36.5	22.6	18.6	12.8	45.6	0.4	50.9	176	92.7	173
Phnom Penh	22.8	26.1	1.6	7.9	6.9	83.3	0.3	18.3	538	99.5	536
Prey Veng	47.3	50.1	7.2	6.6	16.7	69.5	0.0	48.5	514	60.8	513
Pursat	55.5	68.5	7.7	9.9	15.2	67.3	0.0	71.2	206	98.4	206
Siem Reap	60.6	66.1	10.9	7.7	18.4	61.7	1.2	64.1	441	90.1	441
Svay Rieng	48.9	47.0	7.5	8.3	16.2	67.3	0.8	38.6	233	68.5	229
Takeo	53.4	52.4	6.2	19.0	13.8	58.1	2.9	29.5	417	66.1	401
Otdar Mean Chey	35.9	32.6	11.4	12.6	7.2	67.3	1.5	75.5	86	75.9	85
Battambang/Pailin	46.8	51.3	8.9	13.0	15.1	56.3	6.7	58.4	451	88.3	443
Kampot/Kep	47.4	45.3	13.5	25.8	10.5	46.0	4.2	44.4	296	57.2	292
Preah Sihanouk/Koh Kong	37.2	46.1	13.8	21.7	15.8	47.3	1.5	50.8	144	94.4	144
Preah Vihear/Steung Treng	28.5	31.2	21.5	22.7	15.2	28.1	12.5	38.6	170	87.7	162
Mondol Kiri/Rattanak Kiri	17.8	19.1	34.4	24.1	10.6	30.4	0.5	27.8	124	93.6	121
Education											
No schooling	35.5	35.1	22.1	15.8	15.2	43.6	3.3	38.9	1,133	81.9	1,116
Primary	44.9	46.0	10.2	18.1	14.8	54.3	2.7	44.9	3,635	81.0	3,579
Secondary and higher	46.8	49.1	3.1	10.9	11.6	71.5	3.0	47.3	1,703	90.0	1,686
Wealth quintile											
Lowest	39.6	40.9	16.8	19.1	16.3	43.3	4.5	40.0	1,585	79.9	1,547
Second	41.6	41.8	14.0	16.7	14.4	52.0	2.9	44.7	1,380	77.9	1,362
Middle	49.9	51.2	8.9	16.2	15.6	56.9	2.4	48.5	1,229	79.2	1,208
Fourth	48.7	50.7	5.6	14.7	13.8	63.2	2.7	50.7	1,155	88.1	1,148
Highest	40.6	41.4	3.5	10.7	8.7	75.7	1.4	39.9	1,123	95.6	1,117
Total	43.8	44.9	10.4	15.8	14.0	56.9	2.9	44.5	6,472	83.6	6,381

[1] In the first six weeks after delivery of last birth
[2] Excludes women in households where salt was not tested

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

15

This chapter presents current levels of HIV/AIDS knowledge, attitudes, and related behaviors for the general adult population. The chapter then focuses on HIV/AIDS knowledge and patterns of sexual activity among young people. The findings in this chapter will assist the AIDS control program in Cambodia to identify particular groups of people most in need of information and services and most vulnerable to the risk of HIV infection.

15.1 KNOWLEDGE OF HIV/AIDS AND OF TRANSMISSION AND PREVENTION METHODS

15.1.1 Awareness of AIDS

Ninety-nine percent of women and men age 15-49 have heard of AIDS (Table 15.1). The level of awareness of AIDS is lowest in Preah Vihear/Steung Treng: only 86 percent of women and 93 percent of men know about AIDS. Knowledge of AIDS exceeds 98 percent among women and men in all age groups, in all marital status categories, and by urban and rural residence. However, only 96 percent of women and 95 percent of men with no schooling have heard of AIDS.

Table 15.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Cambodia 2010

Background characteristic	Women		Men	
	Has heard of AIDS	Number of respondents	Has heard of AIDS	Number of respondents
Age				
15-24	98.6	6,889	98.4	3,265
15-19	98.4	3,734	97.6	1,863
20-24	98.9	3,155	99.3	1,402
25-29	98.6	3,262	99.5	1,377
30-39	98.4	4,211	99.2	1,849
40-49	98.7	4,393	99.1	1,748
Marital status				
Never married	98.2	5,783	98.4	3,181
Ever had sex	*	13	99.9	437
Never had sex	98.3	5,770	98.2	2,744
Married/living together	98.7	11,626	99.2	4,852
Divorced/separated/widowed	98.9	1,345	98.5	206
Residence				
Urban	99.6	3,936	99.8	1,697
Rural	98.3	14,818	98.7	6,542
Province				
Banteay Mean Chey	97.3	719	98.3	275
Kampong Cham	98.2	2,111	99.4	990
Kampong Chhnang	99.9	739	100.0	341
Kampong Speu	99.9	1,060	100.0	468
Kampong Thom	99.5	935	98.6	390
Kandal	99.9	1,920	100.0	796
Kratie	96.5	438	98.3	191
Phnom Penh	99.7	2,183	99.5	945
Prey Veng	99.3	1,341	100.0	598
Pursat	100.0	534	97.3	256
Siem Reap	98.7	1,233	96.3	517
Svay Rieng	99.4	753	98.9	331
Takeo	97.0	1,175	97.8	525
Otdar Mean Chey	99.5	252	96.9	122
Battambang/Pailin	98.2	1,320	100.0	603
Kampot/Kep	99.8	891	99.6	362
Preah Sihanouk/Koh Kong	99.6	439	99.5	203
Preah Vihear/Steung Treng	86.2	430	93.3	193
Mondol Kiri/Rattanak Kiri	89.9	281	94.8	132

Continued…

Table 15.1—*Continued*

Background characteristic	Women		Men	
	Has heard of AIDS	Number of respondents	Has heard of AIDS	Number of respondents
Education				
No schooling	96.3	2,973	95.2	641
Primary	98.4	9,265	98.5	3,394
Secondary and higher	99.8	6,516	99.8	4,205
Wealth quintile				
Lowest	96.4	3,388	96.5	1,454
Second	97.9	3,516	98.9	1,544
Middle	98.8	3,594	99.1	1,637
Fourth	99.5	3,827	99.7	1,696
Highest	99.9	4,428	99.8	1,908
Total	98.6	18,754	98.9	8,239

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

15.1.2 HIV Prevention Methods

HIV/AIDS prevention programs focus their messages and efforts on two important aspects of behavior: limiting the number of sexual partners or staying faithful to one partner and use of condoms. To ascertain whether programs have effectively communicated these messages, the 2010 Cambodia Demographic and Health Survey (CDHS) prompted respondents with specific questions about HIV/AIDS prevention methods (limiting sexual intercourse to one uninfected faithful sexual partner and using condoms).

Table 15.2 presents knowledge of these HIV/AIDS prevention methods among women and men age 15-49, by background characteristics. Eighty-six percent of women and 89 percent of men are aware that the chances of contracting the AIDS virus can be reduced by limiting sex to one uninfected partner who has no other partners; women (81 percent) and men (84 percent) are somewhat less likely to know that using condoms can prevent transmission of the AIDS virus. Approximately 75 percent of women and 80 percent of men have knowledge of both HIV prevention methods.

Knowledge of both HIV prevention methods is lower among women age 40-49 than among younger women. Men age 20-24 are somewhat more likely to have knowledge about prevention of HIV/AIDS than older and younger men. There is little variation in knowledge of the two HIV prevention methods by marital status, although knowledge is somewhat lower among women who are divorced, separated, or widowed (70 percent) and among men who have never been married and never had sex (78 percent).

Knowledge of HIV prevention methods is higher among men in urban than in rural areas, whereas there is no clear pattern among women. There is considerable variability across provinces in knowledge of prevention methods. Among women, knowledge of the two HIV prevention methods is highest in Kandal and Otdar Mean Chey (91 percent) and lowest in Mondol Kiri/Rattanak Kiri and Svay Rieng (58 percent). Among men, knowledge of the two methods is highest in Phnom Penh and Prey Veng (99 percent) and lowest in Kandal (13 percent).

Level of educational attainment strongly relates to a respondent's knowledge of HIV prevention methods. Women and men with higher levels of schooling are more likely than those with less schooling to be aware of various preventive methods. The data also show that men in higher wealth quintiles are more likely than those in lower quintiles to be aware of ways to prevent transmission of the HIV virus. There is no clear pattern between wealth and knowledge of HIV prevention methods among women.

Table 15.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, by background characteristics, Cambodia 2010

	Women				Men			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Age								
15-24	82.9	87.8	76.4	6,889	84.3	87.8	79.0	3,265
15-19	82.4	87.1	75.7	3,734	82.9	86.4	76.7	1,863
20-24	83.4	88.6	77.2	3,155	86.0	89.7	82.1	1,402
25-29	81.3	86.9	74.9	3,262	84.4	88.3	80.8	1,377
30-39	81.3	86.5	75.4	4,211	84.7	89.5	80.7	1,849
40-49	77.9	83.2	70.5	4,393	84.0	91.0	80.8	1,748
Marital status								
Never married	81.0	86.6	74.3	5,783	84.2	88.2	79.1	3,181
Ever had sex	*	*	*	13	86.9	92.7	84.1	437
Never had sex	81.0	86.6	74.4	5,770	83.8	87.5	78.3	2,744
Married/living together	81.3	86.5	75.1	11,626	84.4	89.3	80.5	4,852
Divorced/separated/widowed	79.1	82.8	69.8	1,345	85.5	91.7	83.6	206
Residence								
Urban	76.7	93.3	73.2	3,936	92.5	97.8	91.5	1,697
Rural	82.2	84.4	74.9	14,818	82.2	86.6	77.1	6,542
Province								
Banteay Mean Chey	88.0	87.3	81.7	719	97.0	96.5	96.3	275
Kampong Cham	81.2	81.8	72.9	2,111	87.5	90.3	81.5	990
Kampong Chhnang	72.5	95.9	70.3	739	96.8	96.1	94.8	341
Kampong Speu	88.7	88.0	81.2	1,060	96.9	98.7	95.9	468
Kampong Thom	82.1	80.5	72.4	935	90.7	83.7	78.0	390
Kandal	96.0	92.7	90.8	1,920	20.9	61.1	12.5	796
Kratie	74.9	75.5	70.5	438	86.2	88.2	80.0	191
Phnom Penh	66.7	94.1	63.7	2,183	99.3	98.9	98.8	945
Prey Veng	84.6	86.6	79.8	1,341	99.1	99.5	98.9	598
Pursat	80.8	87.4	72.5	534	39.3	35.6	19.2	256
Siem Reap	76.7	88.6	71.0	1,233	88.9	89.9	85.0	517
Svay Rieng	63.6	74.9	58.5	753	90.2	94.3	87.8	331
Takeo	88.7	83.8	78.6	1,175	92.2	92.5	89.1	525
Otdar Mean Chey	93.4	92.8	90.7	252	92.1	96.1	91.8	122
Battambang/Pailin	83.2	80.3	71.2	1,320	95.9	97.6	93.5	603
Kampot/Kep	82.6	86.0	72.9	891	94.0	96.8	92.3	362
Preah Sihanouk/Koh Kong	91.8	93.4	87.3	439	89.9	94.5	87.7	203
Preah Vihear/Steung Treng	69.7	79.1	67.2	430	77.6	88.0	76.2	193
Mondol Kiri/Rattanak Kiri	62.9	66.2	57.6	281	81.5	73.5	67.1	132
Education								
No schooling	72.4	74.1	62.9	2,973	76.5	77.8	69.8	641
Primary	80.6	84.9	73.2	9,265	83.5	86.9	78.4	3,394
Secondary and higher	85.7	93.7	81.6	6,516	86.2	92.3	83.0	4,205
Wealth quintile								
Lowest	75.7	77.4	66.7	3,388	79.4	82.5	73.7	1,454
Second	80.4	82.4	72.7	3,516	83.4	86.9	78.3	1,544
Middle	82.9	85.0	75.5	3,594	84.4	88.9	79.4	1,637
Fourth	87.5	89.9	81.4	3,827	80.8	89.4	76.5	1,696
Highest	78.7	94.0	75.2	4,428	91.9	95.2	90.1	1,908
Total	81.0	86.3	74.5	18,754	84.3	88.9	80.1	8,239

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

15.1.3 Knowledge about Transmission

The 2010 CDHS included questions on common misconceptions about AIDS and HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can contract AIDS from mosquito bites, by supernatural means, or by sharing food with a person who has AIDS.

The results in Tables 15.3.1 and 15.3.2 indicate that many Cambodian adults lack accurate knowledge about the ways in which the AIDS virus can and cannot be transmitted. Particularly critical is the fact that only 63 percent of women and 61 percent of men know that a healthy-looking

Table 15.3.1 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 AIDS transmission or prevention, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Cambodia 2010

Background characteristic	Percentage of respondents 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 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 become infected by sharing food with a person who has AIDS			
Age							
15-24	65.8	74.2	88.9	90.6	50.3	44.4	6,889
15-19	64.5	73.0	87.7	89.2	48.8	42.8	3,734
20-24	67.4	75.7	90.4	92.3	52.1	46.2	3,155
25-29	65.4	75.7	89.8	91.9	51.1	44.9	3,262
30-39	61.4	68.7	87.7	89.5	45.3	39.8	4,211
40-49	58.4	62.8	83.0	85.9	39.4	33.1	4,393
Marital status							
Never married	65.4	75.3	88.4	90.0	51.5	45.4	5,783
Married/living together	62.2	68.7	87.2	89.3	44.9	39.1	11,626
Divorced/separated/widowed	59.4	66.4	85.1	88.5	42.3	35.3	1,345
Residence							
Urban	70.3	84.5	94.4	94.3	60.1	54.5	3,936
Rural	61.1	66.9	85.6	88.2	43.2	37.1	14,818
Province							
Banteay Mean Chey	71.6	46.8	66.3	65.3	31.8	29.2	719
Kampong Cham	50.1	56.3	78.0	85.3	31.9	27.7	2,111
Kampong Chhnang	56.4	88.8	95.3	96.9	48.1	46.2	739
Kampong Speu	79.2	76.5	94.8	95.1	63.6	56.2	1,060
Kampong Thom	60.7	72.4	79.6	86.6	48.1	41.6	935
Kandal	89.8	75.8	94.7	93.8	68.8	66.4	1,920
Kratie	51.9	67.7	84.4	84.3	45.5	42.2	438
Phnom Penh	65.1	88.1	97.1	96.7	59.5	53.2	2,183
Prey Veng	52.5	67.1	92.4	91.3	36.4	31.7	1,341
Pursat	41.4	81.0	89.6	94.9	33.3	24.9	534
Siem Reap	16.7	78.6	90.0	91.4	13.8	13.4	1,233
Svay Rieng	56.3	73.7	89.3	94.5	45.4	18.4	753
Takeo	76.7	62.6	88.0	88.1	50.9	44.4	1,175
Otdar Mean Chey	80.3	68.7	92.3	94.0	58.9	57.5	252
Battambang/Pailin	79.0	69.9	85.5	87.1	56.6	45.1	1,320
Kampot/Kep	79.8	59.0	86.0	91.3	49.7	40.1	891
Preah Sihanouk/Koh Kong	82.0	72.3	93.2	94.3	61.6	57.9	439
Preah Vihear/Steung Treng	57.7	52.6	64.2	70.6	39.8	37.0	430
Mondol Kiri/Rattanak Kiri	9.9	47.3	59.3	62.7	6.2	5.3	281
Education							
No schooling	47.8	51.7	73.5	79.0	26.6	20.8	2,973
Primary	60.0	65.6	86.5	88.6	41.2	35.2	9,265
Secondary and higher	74.3	86.2	95.2	95.5	63.9	57.9	6,516
Wealth quintile							
Lowest	49.6	58.0	77.3	82.1	31.5	25.7	3,388
Second	57.9	62.1	83.4	86.6	38.0	32.3	3,516
Middle	62.1	67.3	87.3	89.6	43.5	36.9	3,594
Fourth	69.6	74.8	91.4	92.3	52.8	47.2	3,827
Highest	72.4	85.8	95.0	95.0	62.9	56.7	4,428
Total	63.0	70.6	87.4	89.5	46.8	40.8	18,754

[1] Two most common local misconceptions: mosquito bites and sharing food

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

person can have (and thus transmit) the virus that causes AIDS. Many women and men also erroneously believe that AIDS can be transmitted by mosquito bites; however, 71 percent of women and 75 percent of men do reject this common misconception. Larger proportions of women and men are aware that the AIDS virus cannot be transmitted by supernatural means (87 percent and 92 percent, respectively) or by sharing food with a person who has AIDS (90 percent for women and 92 percent for men). Overall, less than half of women (47 percent) and men (49 percent) are able to reject two of the more common misconceptions about AIDS—that AIDS can be transmitted by mosquito bites and that a person can become infected with the AIDS virus by sharing food with someone who is infected—and know that a healthy-looking person can have the AIDS virus.

Table 15.3.2 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, Cambodia 2010

Background characteristic	Percentage of respondents 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 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 become infected by sharing food with a person who has AIDS			
Age							
15-24	59.7	75.4	91.7	91.2	48.7	43.7	3,265
15-19	57.7	72.9	89.9	88.7	45.7	40.9	1,863
20-24	62.3	78.6	94.0	94.4	52.6	47.5	1,402
25-29	64.6	80.1	93.0	94.7	55.1	49.5	1,377
30-39	61.9	75.3	91.8	92.9	49.5	44.9	1,849
40-49	57.8	67.7	89.6	89.3	41.7	37.5	1,748
Marital status							
Never married	60.2	77.0	92.2	91.3	50.3	45.3	3,181
Ever had sex	76.1	85.9	96.4	95.8	66.9	61.7	437
Never had sex	57.7	75.6	91.5	90.6	47.7	42.7	2,744
Married/living together	60.7	72.7	91.0	92.0	47.1	42.4	4,852
Divorced/separated/widowed	63.7	79.5	90.5	92.9	52.3	46.3	206
Residence							
Urban	79.2	86.7	97.3	97.5	72.2	68.5	1,697
Rural	55.7	71.3	89.9	90.3	42.3	37.2	6,542
Province							
Banteay Mean Chey	72.9	66.3	83.9	86.3	49.6	48.9	275
Kampong Cham	68.0	66.0	79.8	89.9	47.9	42.1	990
Kampong Chhnang	74.0	70.6	97.0	91.3	53.2	52.6	341
Kampong Speu	68.7	72.7	95.4	92.6	52.3	51.3	468
Kampong Thom	45.0	56.5	79.8	81.3	29.3	27.0	390
Kandal	38.5	70.8	85.4	90.3	29.7	6.6	796
Kratie	65.1	70.1	86.9	84.5	49.3	44.3	191
Phnom Penh	89.0	87.2	98.8	98.6	81.7	81.4	945
Prey Veng	72.5	78.5	98.5	94.9	59.3	59.3	598
Pursat	42.1	73.5	91.4	91.4	36.9	9.6	256
Siem Reap	66.8	81.4	94.7	93.3	59.4	57.9	517
Svay Rieng	59.1	65.5	89.6	86.3	42.3	39.4	331
Takeo	72.3	86.6	96.7	95.9	64.6	60.9	525
Otdar Mean Chey	18.2	85.2	92.3	92.7	16.6	16.3	122
Battambang/Pailin	5.3	82.1	98.1	96.2	4.6	3.7	603
Kampot/Kep	83.3	66.0	93.6	95.1	60.3	59.9	362
Preah Sihanouk/Koh Kong	71.5	83.0	96.6	95.6	64.9	60.5	203
Preah Vihear/Steung Treng	43.6	79.5	88.5	80.2	37.0	36.3	193
Mondol Kiri/Rattanak Kiri	36.9	53.5	89.6	74.7	25.8	23.5	132
Education							
No schooling	40.0	46.9	75.5	75.5	20.0	17.8	641
Primary	53.1	64.0	87.4	88.3	36.7	33.2	3,394
Secondary and higher	69.7	87.2	97.2	97.0	62.3	56.0	4,205
Wealth quintile							
Lowest	49.8	57.9	82.2	83.6	32.3	27.8	1,454
Second	55.5	69.0	88.9	89.4	41.5	37.5	1,544
Middle	61.4	72.0	91.7	91.0	45.8	40.5	1,637
Fourth	57.4	80.3	94.0	94.9	48.0	41.2	1,696
Highest	75.1	88.7	98.1	97.7	69.2	65.5	1,908
Total	60.6	74.5	91.5	91.8	48.5	43.6	8,239

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

Tables 15.3.1 and 15.3.2 also provide an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. People are considered to have comprehensive knowledge about AIDS when they know that both condom use and limiting sex partners to one uninfected person are HIV/AIDS prevention methods, they are aware that a healthy-looking person can have HIV, and they reject the two most common local misconceptions. In Cambodia, 41 percent of women and 44 percent of men have comprehensive knowledge of HIV/AIDS prevention and transmission.

Tables 15.3.1 and 15.3.2 show that there is considerable variation in HIV/AIDS knowledge by background characteristics. Sexually active, never-married men tend to be more knowledgeable than men in other marital status categories. For all indicators, the proportion of women and men with

correct knowledge about HIV/AIDS prevention and transmission is higher in urban than rural areas and among women and men with higher levels of schooling. Similarly, men and women in higher wealth quintiles are more likely than those in lower quintiles to have comprehensive knowledge about HIV/AIDS. Variations in knowledge levels by province are marked among both women and men, with the highest levels of comprehensive knowledge about AIDS observed among female residents of Kandal (66 percent) and among male residents of Phnom Penh (81 percent).

15.1.4 Knowledge of Mother-to-Child Transmission

Educating people about the ways in which HIV can be transmitted from mother to child during pregnancy, delivery, and breastfeeding is critical to reducing mother-to-child transmission (MTCT) of HIV. To obtain information on these issues, respondents were asked whether the virus that causes AIDS can be transmitted from a mother to a child during pregnancy, delivery, or breastfeeding and whether a mother who is infected with HIV can reduce the risk of transmission of the virus to the baby by taking certain drugs (antiretrovirals) during pregnancy (see Table 15.4).

Although 90 percent of women and 85 percent of men know that HIV can be transmitted by breastfeeding, only 58 percent of women and about one-third of men know that the risk of MTCT can be reduced through the use of certain drugs during pregnancy. Fifty-six percent of women and 34 percent of men have comprehensive knowledge of MTCT; that is, they are aware of both aspects of MTCT.

Although there are no marked differences in MTCT knowledge among women and men by age, marital status, or pregnancy status (for women), there is considerable variation by area of residence, education, and wealth. Most respondents know that HIV can be transmitted by breastfeeding; lack of knowledge about antiretrovirals accounts for most of the variation by background characteristics. Comprehensive knowledge about mother-to-child transmission is highest among men and women living in urban areas. More than three-quarters of women living in Kandal, and Prey Veng have comprehensive knowledge of MTCT, and the same can be said of men living in Battambang/Pailin and Preah Sihanouk/Koh Kong. Knowledge levels are lowest among women and men who have no schooling and among those who are in the lowest wealth quintile. Particularly notable is the comparatively low level of knowledge among pregnant women; just 54 percent of pregnant women are aware that HIV can be transmitted from mother to child during breastfeeding and that mother-to-child transmission can be reduced by taking certain drugs during pregnancy. This indicates incomplete coverage of MTCT counseling during prenatal care visits in Cambodia.

Table 15.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Cambodia 2010

	Women				Men			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	89.5	56.5	54.6	6,889	82.4	35.7	32.8	3,265
15-19	88.4	54.0	51.7	3,734	80.0	35.0	31.1	1,863
20-24	90.7	59.4	58.1	3,155	85.5	36.6	34.9	1,402
25-29	90.7	60.6	58.8	3,262	86.3	39.4	37.2	1,377
30-39	90.5	59.8	58.2	4,211	88.4	37.6	35.9	1,849
40-49	89.2	57.3	55.3	4,393	86.9	33.3	31.8	1,748
Marital status								
Never married	88.4	55.7	53.5	5,783	82.8	36.2	33.5	3,181
Ever had sex	*	*	*	13	87.1	40.7	38.9	437
Never had sex	88.4	55.7	53.5	5,770	82.1	35.5	32.7	2,744
Married/living together	90.5	59.3	57.7	11,626	86.9	36.3	34.4	4,852
Divorced/separated/widowed	90.4	58.7	56.7	1,345	86.4	33.6	31.6	206
Currently pregnant								
Pregnant	89.8	55.6	54.1	933	na	na	na	na
Not pregnant or not sure	89.9	58.3	56.4	17,821	na	na	na	na
Residence								
Urban	93.2	65.8	64.3	3,936	89.9	44.5	42.4	1,697
Rural	89.0	56.1	54.2	14,818	84.1	34.1	31.8	6,542
Province								
Banteay Mean Chey	91.9	48.8	48.1	719	80.0	52.7	46.1	275
Kampong Cham	87.4	28.6	27.5	2,111	81.8	8.6	8.1	990
Kampong Chhnang	93.4	77.7	74.3	739	91.0	33.9	32.5	341
Kampong Speu	88.9	58.3	56.7	1,060	80.6	35.6	30.7	468
Kampong Thom	87.5	56.4	55.3	935	84.4	43.2	39.4	390
Kandal	94.6	83.6	81.3	1,920	79.5	20.4	17.9	796
Kratie	83.4	52.1	50.1	438	87.5	41.3	38.3	191
Phnom Penh	93.8	63.7	62.4	2,183	91.5	42.4	40.4	945
Prey Veng	94.3	78.9	78.2	1,341	99.1	65.5	65.2	598
Pursat	93.1	71.8	70.7	534	62.5	27.2	26.5	256
Siem Reap	91.7	59.6	57.6	1,233	91.9	10.1	10.0	517
Svay Rieng	92.8	69.2	65.6	753	85.4	34.3	31.2	331
Takeo	83.9	46.5	43.6	1,175	81.4	51.1	43.8	525
Otdar Mean Chey	93.8	43.9	42.9	252	83.9	19.6	17.9	122
Battambang/Pailin	86.7	50.3	48.0	1,320	97.3	79.4	77.7	603
Kampot/Kep	90.2	54.6	51.0	891	65.4	14.2	13.9	362
Preah Sihanouk/Koh Kong	87.5	52.5	51.5	439	95.2	86.2	84.9	203
Preah Vihear/Steung Treng	73.9	45.5	43.9	430	87.5	10.0	9.5	193
Mondol Kiri/Rattanak Kiri	72.7	25.8	25.1	281	70.1	12.6	12.3	132
Education								
No schooling	85.1	45.0	43.7	2,973	79.3	22.8	22.0	641
Primary	88.7	57.3	55.2	9,265	83.5	31.9	30.2	3,394
Secondary and higher	93.6	65.3	63.6	6,516	87.7	41.7	39.0	4,205
Wealth quintile								
Lowest	85.0	47.6	45.9	3,388	82.1	29.2	27.5	1,454
Second	88.3	52.8	50.9	3,516	85.9	33.4	31.5	1,544
Middle	90.2	58.7	56.8	3,594	84.1	34.2	32.2	1,637
Fourth	91.8	63.3	61.4	3,827	83.9	36.8	33.8	1,696
Highest	92.9	65.4	63.8	4,428	89.7	45.1	42.8	1,908
Total	89.9	58.1	56.3	18,754	85.3	36.2	34.0	8,239

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
Na = Not applicable

15.2 STIGMA ASSOCIATED WITH AIDS AND ATTITUDES RELATED TO HIV/AIDS

Knowledge and beliefs about HIV infection affect how people treat those they know to be living with HIV or AIDS. In the 2010 CDHS, a number of questions were posed to respondents to measure their attitudes towards HIV-infected people, including questions about their willingness to buy vegetables from an infected vegetable seller, to let others know the HIV status of family members, and to take care of relatives who have the AIDS virus in their own household. They were also asked whether an HIV-positive woman who is not sick should be allowed to continue teaching. Tables 15.5.1 and 15.5.2 show the percentages of women and men who have heard of HIV/AIDS and who express positive attitudes towards people with HIV, by background characteristics.

Table 15.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Cambodia 2010

Background characteristic	Percentage of respondents who: 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 who is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of respondents who have heard of AIDS
Age						
15-24	85.1	83.2	90.7	50.1	33.5	6,792
15-19	84.4	80.7	89.7	48.7	30.8	3,673
20-24	85.9	86.1	91.9	51.7	36.7	3,119
25-29	85.2	85.6	92.2	55.9	38.3	3,215
30-39	81.5	78.0	88.9	60.9	36.4	4,142
40-49	80.6	69.0	83.6	61.7	31.1	4,336
Marital status						
Never married	85.2	82.8	90.5	50.0	33.9	5,681
Married/living together	82.4	77.7	88.5	58.9	34.9	11,473
Divorced/separated/widowed	81.9	76.0	85.5	59.8	33.4	1,330
Residence						
Urban	90.3	89.7	94.4	48.7	38.4	3,918
Rural	81.4	76.3	87.4	58.3	33.4	14,567
Province						
Banteay Mean Chey	85.1	77.7	87.1	43.5	25.1	700
Kampong Cham	65.0	62.3	80.5	78.3	28.2	2,073
Kampong Chhnang	94.6	87.6	97.7	33.2	26.9	738
Kampong Speu	94.5	90.9	95.5	47.3	38.9	1,059
Kampong Thom	89.5	68.5	76.0	71.7	43.1	930
Kandal	97.3	82.0	89.7	55.1	42.6	1,917
Kratie	52.7	69.1	80.3	52.4	11.8	423
Phnom Penh	91.5	89.9	94.6	50.2	43.0	2,178
Prey Veng	67.4	81.4	90.0	59.6	24.9	1,331
Pursat	77.7	80.9	96.6	25.9	10.5	534
Siem Reap	71.8	87.0	94.2	59.6	34.4	1,217
Svay Rieng	92.8	77.3	92.0	72.8	55.0	749
Takeo	91.6	82.9	93.5	63.1	49.5	1,140
Otdar Mean Chey	93.8	78.2	94.2	33.1	24.1	251
Battambang/Pailin	93.7	79.2	87.2	41.9	27.9	1,296
Kampot/Kep	66.7	76.9	85.7	68.2	31.6	889
Preah Sihanouk/Koh Kong	97.9	83.6	93.6	36.6	29.5	437
Preah Vihear/Steung Treng	85.1	60.1	77.0	57.2	38.1	371
Mondol Kiri/Rattanak Kiri	49.6	52.1	62.0	64.2	14.5	253
Education						
No schooling	75.9	63.9	78.7	58.6	25.9	2,862
Primary	81.8	76.2	87.6	57.3	32.5	9,119
Secondary and higher	88.5	90.0	95.3	53.7	40.9	6,503
Wealth quintile						
Lowest	78.0	66.4	81.2	57.2	27.0	3,265
Second	79.7	73.4	85.9	57.8	30.5	3,441
Middle	81.7	77.9	88.7	60.6	35.3	3,550
Fourth	85.2	83.3	91.2	57.3	37.8	3,807
Highest	89.5	90.4	95.0	50.0	39.4	4,422
Total	83.3	79.1	88.9	56.3	34.4	18,485

The large majority of women and men age 15-49 (89 percent and 90 percent, respectively) say that an HIV-positive female teacher should be allowed to continue teaching. Comparatively fewer (79 percent of women and 82 percent of men) would buy fresh food from a shopkeeper with AIDS. Although 83 percent of women and 92 percent of men say they would be willing to care for a family member with the AIDS virus in their home, only 56 percent of women and 48 percent of men would not want to keep secret that a family member has HIV. Overall, more than 3 in 10 women (34 percent) and one third of men (35 percent) express accepting attitudes on all four indicators.

In general, better educated respondents, those in the higher wealth quintiles, and those living in urban areas have more accepting attitudes towards nonrelatives who are HIV positive and are more willing to care for family members with AIDS in their own home. However, they are less likely to agree that they would not want to keep secret that a family member is HIV positive. Overall, men and women who live in an urban area, have a higher level of education, and live in a wealthy household are more likely to express accepting attitudes on all four measures.

Table 15.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Cambodia 2010

Background characteristic	Percentage of respondents who: 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 who is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of respondents who have heard of AIDS
Age						
15-24	92.2	83.5	91.3	41.3	30.9	3,211
15-19	91.2	80.5	90.3	39.8	27.9	1,818
20-24	93.5	87.4	92.6	43.1	35.0	1,393
25-29	92.0	89.4	93.0	48.6	38.0	1,370
30-39	91.3	81.1	88.5	54.9	38.8	1,835
40-49	89.8	76.2	87.7	54.3	34.7	1,731
Marital status						
Never married	92.2	84.5	91.5	40.4	30.3	3,130
Ever had sex	98.0	94.0	97.3	35.0	31.6	436
Never had sex	91.3	83.0	90.6	41.2	30.1	2,694
Married/living together	90.9	81.0	89.2	53.2	37.2	4,815
Divorced/separated/widowed	94.1	83.6	93.3	57.9	42.2	202
Residence						
Urban	96.9	94.8	96.4	26.0	21.6	1,694
Rural	90.0	79.1	88.6	54.2	38.1	6,454
Province						
Banteay Mean Chey	92.0	76.5	83.2	55.8	34.7	270
Kampong Cham	95.4	68.0	87.8	64.9	41.6	985
Kampong Chhnang	98.7	84.0	94.3	52.3	45.7	341
Kampong Speu	31.2	90.0	79.7	65.3	18.5	468
Kampong Thom	83.9	69.6	79.0	56.3	34.0	385
Kandal	97.5	80.4	95.6	49.3	39.4	796
Kratie	98.9	79.1	84.9	27.0	21.0	188
Phnom Penh	99.5	98.3	97.9	2.5	1.7	941
Prey Veng	100.0	77.1	99.0	50.9	42.3	598
Pursat	74.6	85.0	77.9	52.4	29.7	249
Siem Reap	86.7	95.4	91.9	74.9	61.7	497
Svay Rieng	94.7	78.4	86.1	32.8	23.3	327
Takeo	97.7	81.8	96.4	45.1	36.8	514
Otdar Mean Chey	97.6	87.3	82.4	36.6	29.0	118
Battambang/Pailin	100.0	86.8	97.3	57.6	51.1	603
Kampot/Kep	91.6	91.5	85.8	59.7	50.9	361
Preah Sihanouk/Koh Kong	99.2	93.9	98.0	41.8	38.8	202
Preah Vihear/Steung Treng	98.4	64.7	62.7	65.7	33.8	180
Mondol Kiri/Rattanak Kiri	85.6	48.9	75.4	22.4	12.5	125
Education						
No schooling	86.3	61.8	73.5	58.5	29.0	610
Primary	90.2	74.8	86.8	51.3	33.5	3,342
Secondary and higher	93.2	91.4	95.3	44.5	36.5	4,197
Wealth quintile						
Lowest	87.3	72.1	79.3	55.7	32.9	1,403
Second	91.2	75.3	88.7	53.9	38.6	1,528
Middle	89.6	80.1	90.5	54.7	39.1	1,623
Fourth	92.4	85.2	92.6	51.8	39.1	1,691
Highest	95.5	95.0	97.0	30.0	25.2	1,904
Total	91.5	82.4	90.2	48.4	34.7	8,148

Tables 15.5.1 and 15.5.2 document considerable variation in accepting attitudes by province. Fifty-five percent of women in Svay Rieng and 50 percent in Takeo express accepting attitudes on all four measures, as compared with less than 15 percent in Mondol Kiri/Rattanak Kiri, Kratie, and Pursat. Sixty-two percent of men in Siem Reap and 51 percent in Battambang/Pailin and Kampot/Kep express accepting attitudes on all four measures. Phnom Penh has the lowest percentage of men (2 percent) with accepting attitudes on all four indicators, most likely due to only 3 percent of men in Phnom Penh stating that they would not want to keep secret that a family member has HIV.

15.3 ATTITUDES TOWARDS NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it is useless if people feel powerless to negotiate safer sex practices with their partners. To gauge attitudes towards safer sex, respondents in the 2010 CDHS were asked whether they think a woman is justified in refusing to have sex with her husband if she knows he has sex with other women. They were also asked whether they think that a woman in the same circumstances is justified in asking her husband to use a condom if she knows that her husband has a sexually transmitted infection (STI). The results from these questions are shown in Table 15.6.

Table 15.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, Cambodia 2010

	Women			Men		
Background characteristic	Woman is justified in refusing to have sexual intercourse with husband if she knows he has sex with other women	Woman is justified in asking that they use a condom if she knows that her husband has an STI	Number of women	Woman is justified in refusing to have sexual intercourse with husband if she knows he has sex with other women	Woman is justified in asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	72.9	92.2	6,889	76.9	94.3	3,265
15-19	71.5	89.9	3,734	75.4	92.5	1,863
20-24	74.4	95.0	3,155	78.9	96.7	1,402
25-29	79.4	95.8	3,262	86.8	98.5	1,377
30-39	79.5	94.9	4,211	84.7	97.6	1,849
40-49	78.3	93.8	4,393	83.8	96.8	1,748
Marital status						
Never married	70.1	89.3	5,783	77.7	94.3	3,181
Ever had sex	*	*	13	80.9	98.6	437
Never had sex	70.1	89.3	5,770	77.2	93.6	2,744
Married/living together	79.8	95.9	11,626	84.3	97.6	4,852
Divorced/separated/widowed	79.5	95.4	1,345	83.4	95.9	206
Residence						
Urban	71.9	95.8	3,936	91.3	98.7	1,697
Rural	78.1	93.3	14,818	79.3	95.6	6,542
Province						
Banteay Mean Chey	54.8	96.3	719	76.7	99.4	275
Kampong Cham	80.0	97.2	2,111	59.4	98.2	990
Kampong Chhnang	58.0	97.8	739	85.6	98.8	341
Kampong Speu	83.0	96.3	1,060	74.9	98.4	468
Kampong Thom	73.4	89.7	935	76.8	97.0	390
Kandal	77.7	90.4	1,920	87.3	96.9	796
Kratie	66.5	80.3	438	78.6	98.6	191
Phnom Penh	71.4	96.7	2,183	96.8	99.6	945
Prey Veng	87.1	95.2	1,341	93.1	99.8	598
Pursat	84.9	85.3	534	89.9	92.6	256
Siem Reap	73.0	87.5	1,233	78.5	90.5	517
Svay Rieng	85.7	95.8	753	94.7	98.2	331
Takeo	89.5	94.9	1,175	81.1	98.3	525
Otdar Mean Chey	89.4	97.5	252	77.8	96.6	122
Battambang/Pailin	70.8	96.2	1,320	83.9	98.0	603
Kampot/Kep	83.8	95.3	891	77.2	77.4	362
Preah Sihanouk/Koh Kong	76.6	95.4	439	96.5	97.5	203
Preah Vihear/Steung Treng	75.7	93.7	430	60.8	97.9	193
Mondol Kiri/Rattanak Kiri	68.3	83.3	281	82.6	68.6	132
Education						
No schooling	75.0	89.7	2,973	75.4	91.9	641
Primary	78.4	94.1	9,265	81.0	95.3	3,394
Secondary and higher	75.2	95.2	6,516	83.3	97.8	4,205
Wealth quintile						
Lowest	78.0	91.0	3,388	77.4	93.6	1,454
Second	77.5	92.2	3,516	81.2	95.2	1,544
Middle	78.9	94.1	3,594	79.2	96.0	1,637
Fourth	76.2	94.8	3,827	80.3	97.7	1,696
Highest	73.9	96.2	4,428	89.1	98.2	1,908
Total	76.8	93.8	18,754	81.8	96.3	8,239

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

Seventy-seven percent of women and 82 percent of men believe that a woman is justified in refusing to have sex with her husband if she knows he has sex with other women, and 94 percent of women and 96 percent of men believe that a woman is justified in asking her husband to use a condom if he has an STI.

The majority of respondents in all groups support a woman's right to propose using a condom if she knows that her husband has an STI. However, there are small differences by background characteristics in the percentages of respondents holding this opinion. For example, the higher a respondent's educational attainment and wealth quintile, the more likely he or she is to say that a woman can propose using a condom. Although the majority of respondents in all groups also support a woman's right to refuse to have sex with her husband if she knows he has sex with other women, some differences by background characteristics stand out. Among women, the percentage who agree

with a woman's right to refuse to have sex with her husband ranges from a low of 55 percent in Banteay Mean Chey to 89 percent in Takeo and Otdar Mean Chey. Among men, support for a woman's right to refuse sex when the husband has sex with other women is lowest in Kampong Cham (59 percent) and highest in Phnom Penh (97 percent).

15.4 MULTIPLE SEXUAL PARTNERSHIPS

Given that most HIV infections in Cambodia are contracted through heterosexual contact, information on sexual behavior is important when designing and monitoring intervention programs to control the spread of the epidemic. In the context of HIV/AIDS prevention, limiting the number of sexual partners and encouraging protected sex are crucial to combating the epidemic. The 2010 CDHS included questions on respondents' lifetime sexual partners as well as the partners respondents had in the 12 months preceding the survey. Male respondents were also asked whether they had paid for sex in the 12 months preceding the interview. Information on use of condoms during the last sexual encounter with each of these types of partners was collected from both women and men. Given that questions about sexual activity are sensitive, it is important to remember that respondents' answers are likely subject to at least some reporting bias when interpreting the results in this section.

Tables 15.7.1 and 15.7.2 show the percentages of women and men age 15-49 years who had engaged in sexual intercourse with more than one partner in the past 12 months along with their mean number of lifetime sexual partners. Table 15.7.2 also shows the percentage of men who used a condom during their most recent intercourse (among those with more than one partner in the past 12 months). Because the number of women reporting more than one partner in the past 12 months is very small, condom use among these women is not presented.

The data show that almost no women and less than 2 percent of men reportedly had two or more sexual partners during the 12 months preceding the survey. Among women, there is no variation according to background characteristics. Men age 25 and older; those who are married and divorced, separated, or widowed; those with at least some education; and those living in households in the fourth and highest wealth quintiles are slightly more likely than other respondents to have had multiple partners over the past year. Although there is no variation according to urban-rural residence, the percentage of men who report having had two or more sexual partners in the past 12 months varies according to province, from a low of 0.1 percent in Otdar Mean Chey, Reah Sihanouk/Koh Kong, and Preah Vihear/Steung Treng to a high of 4 percent in Siem Reap and 5 percent in Banteay Mean Chey.

Among men with two or more partners in the past 12 months, 40 percent report having used a condom during their last encounter. Condom use is more pronounced among urban than rural men (53 and 36 percent, respectively). Education and wealth are strongly associated with use of condoms during the most recent sexual encounter among men who had two or more partners in the past 12 months. More educated and well-off men are much more likely to report condom use during their last sexual intercourse than are those who are less educated and worse-off. For example, 28 percent of men with a primary school education used a condom during their last sexual encounter, as compared with 52 percent of men with a secondary education or higher. In terms of wealth, 40 percent of men in the fourth wealth quintile and 53 percent of men in the highest wealth quintile used a condom during their most recent sexual encounter.

On average, men report having 2.8 lifetime sexual partners, more than twice the average reported by women (1.1 partners). Among women, there is no variation according to background characteristics. Never-married men report about twice the mean number of lifetime sexual partners (5.3) reported by currently married (2.6) or formerly married (2.9) men. The number of sexual partners is also higher among urban than rural men (4.1 versus 2.5). More educated and well-off men are more likely to report a higher number of sexual partners. Men with no schooling report an average of 1.7 partners, as compared with 3.5 partners among men with a secondary education or higher, and the average number of partners ranges from 2.0 or less in the lowest two wealth quintiles to 4.7 in the highest quintile.

Table 15.7.1 Multiple sexual partners in the past 12 months: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner, and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by background characteristics, Cambodia 2010

Background characteristic	All respondents		Among respondents who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the past 12 months	Number	Mean number of sexual partners in lifetime	Number
Age				
15-24	0.1	6,889	1.1	2,205
15-19	0.1	3,734	1.1	410
20-24	0.1	3,155	1.1	1,796
25-29	0.0	3,262	1.1	2,726
30-39	0.0	4,211	1.1	3,889
40-49	0.1	4,393	1.1	4,149
Marital status				
Never married	0.0	5,783	*	13
Married or living together	0.0	11,626	1.1	11,618
Divorced/separated/widowed	0.4	1,345	1.2	1,339
Residence				
Urban	0.1	3,936	1.2	2,343
Rural	0.0	14,818	1.1	10,627
Province				
Banteay Mean Chey	0.0	719	1.1	508
Kampong Cham	0.0	2,111	1.1	1,596
Kampong Chhnang	0.1	739	1.1	496
Kampong Speu	0.0	1,060	1.1	775
Kampong Thom	0.3	935	1.2	638
Kandal	0.0	1,920	1.1	1,255
Kratie	0.0	438	1.1	315
Phnom Penh	0.0	2,183	1.1	1,235
Prey Veng	0.1	1,341	1.1	1,064
Pursat	0.0	534	1.1	360
Siem Reap	0.2	1,233	1.1	837
Svay Rieng	0.0	753	1.1	565
Takeo	0.0	1,175	1.1	860
Otdar Mean Chey	0.2	252	1.2	163
Battambang/Pailin	0.0	1,320	1.1	866
Kampot/Kep	0.1	891	1.1	637
Preah Sihanouk/Koh Kong	0.0	439	1.1	297
Preah Vihear/Steung Treng	0.0	430	1.1	288
Mondol Kiri/Rattanak Kiri	0.0	281	1.1	215
Education				
No schooling	0.0	2,973	1.1	2,589
Primary	0.0	9,265	1.1	7,232
Secondary and higher	0.0	6,516	1.1	3,148
Wealth quintile				
Lowest	0.0	3,388	1.1	2,635
Second	0.0	3,516	1.1	2,602
Middle	0.1	3,594	1.1	2,538
Fourth	0.1	3,827	1.1	2,549
Highest	0.1	4,428	1.1	2,645
Total	0.0	18,754	1.1	12,970

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave nonnumeric responses.

Table 15.7.2 Multiple sexual partners in the past 12 months: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Cambodia 2010

	All respondents		Among respondents who had 2+ partners in the past 12 months		Among respondents who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number	Percentage who reported using a condom during last sexual intercourse	Number	Mean number of sexual partners in lifetime	Number
Age						
15-24	0.7	3,265	*	22	2.7	731
15-19	0.3	1,863	*	5	1.8	90
20-24	1.2	1,402	*	16	2.9	641
25-29	2.6	1,377	(22.2)	36	2.9	1,203
30-39	1.8	1,849	(60.8)	34	3.0	1,806
40-49	2.1	1,748	(13.2)	36	2.7	1,734
Marital status						
Never married	0.7	3,181	(98.3)	24	5.3	437
Married or living together	2.0	4,852	22.6	95	2.6	4,833
Divorced/separated/widowed	4.4	206	*	9	2.9	206
Residence						
Urban	1.6	1,697	53.3	28	4.1	1,104
Rural	1.5	6,542	35.7	100	2.5	4,371
Province						
Banteay Mean Chey	4.5	275	*	12	4.3	194
Kampong Cham	0.6	990	*	6	2.4	692
Kampong Chhnang	0.4	341	*	1	1.9	212
Kampong Speu	0.5	468	*	2	1.7	299
Kampong Thom	2.4	390	*	9	3.6	250
Kandal	2.9	796	*	23	2.2	534
Kratie	0.7	191	*	1	4.7	138
Phnom Penh	0.4	945	*	4	3.8	617
Prey Veng	2.5	598	*	15	1.9	455
Pursat	0.6	256	*	1	1.2	165
Siem Reap	3.7	517	*	19	4.1	368
Svay Rieng	0.2	331	*	1	2.8	230
Takeo	2.2	525	*	12	1.7	333
Otdar Mean Chey	0.1	122	*	0	1.9	75
Battambang/Pailin	2.6	603	*	16	4.7	341
Kampot/Kep	0.3	362	*	1	3.6	238
Preah Sihanouk/Koh Kong	0.1	203	*	0	2.4	130
Preah Vihear/Steung Treng	0.1	193	*	0	1.1	111
Mondol Kiri/Rattanak Kiri	1.4	132	*	2	1.8	94
Education						
No schooling	0.5	641	*	3	1.7	549
Primary	1.9	3,394	27.9	64	2.4	2,507
Secondary and higher	1.5	4,205	52.2	61	3.5	2,419
Wealth quintile						
Lowest	1.0	1,454	*	15	2.0	1,027
Second	1.0	1,544	*	15	1.9	1,057
Middle	0.7	1,637	*	11	2.2	1,068
Fourth	2.7	1,696	39.9	45	2.9	1,084
Highest	2.2	1,908	52.5	42	4.7	1,239
Total	1.5	8,239	39.5	128	2.8	5,475

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave nonnumeric responses.

Male respondents in the 2010 CDHS who had had sex in the past 12 months were asked whether they had paid anyone in exchange for sex in the past 12 months or ever in their lifetime and whether any of their last three partners in the past 12 months was a commercial sex worker.

The results in Table 15.8 show that 11 percent of men have ever paid for sexual intercourse and that 4 percent had done so in the 12 months before the survey. Men age 25-29 (19 percent); men who are divorced, separated, or widowed (32 percent); and men living in Kandal and Prey Veng (33 and 20 percent, respectively) are most likely to have ever paid for sexual intercourse.

Table 15.8 Payment for sexual intercourse and condom use at last paid sexual intercourse: Men

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Cambodia 2010

	Payment for sexual intercourse			Condom use at last paid sexual intercourse	
Background characteristic	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in past 12 months	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in past 12 months
Age					
15-24	4.6	3.0	3,265	92.5	99
15-19	1.7	1.6	1,863	*	30
20-24	8.4	4.9	1,402	95.5	69
25-29	18.5	6.4	1,377	82.3	88
30-39	15.3	3.7	1,849	83.4	68
40-49	11.6	3.3	1,748	(61.4)	57
Marital status					
Never married	6.4	3.8	3,181	97.2	122
Married or living together	12.7	3.2	4,852	66.7	154
Divorced/separated/widowed	32.3	17.9	206	(95.0)	37
Residence					
Urban	11.1	4.6	1,697	94.8	78
Rural	10.7	3.6	6,542	77.7	234
Province					
Banteay Mean Chey	3.6	3.6	275	*	10
Kampong Cham	5.7	5.7	990	*	56
Kampong Chhnang	8.6	0.5	341	*	2
Kampong Speu	9.6	0.5	468	*	2
Kampong Thom	9.2	2.1	390	*	8
Kandal	32.7	5.8	796	(86.6)	46
Kratie	14.5	2.4	191	*	5
Phnom Penh	4.3	3.7	945	*	35
Prey Veng	20.0	4.6	598	*	28
Pursat	2.7	2.1	256	*	5
Siem Reap	11.5	4.7	517	*	24
Svay Rieng	7.3	0.4	331	*	1
Takeo	12.6	3.3	525	*	17
Otdar Mean Chey	1.9	1.1	122	*	1
Battambang/Pailin	4.2	2.6	603	*	16
Kampot/Kep	14.3	12.5	362	(100.0)	45
Preah Sihanouk/Koh Kong	2.9	2.4	203	*	5
Preah Vihear/Steung Treng	0.5	0.3	193	*	0
Mondol Kiri/Rattanak Kiri	16.7	3.2	132	*	4
Education					
No schooling	6.2	3.1	641	*	20
Primary	9.9	3.9	3,394	75.9	133
Secondary and higher	12.2	3.8	4,205	92.4	160
Wealth quintile					
Lowest	7.0	3.1	1,454	(47.0)	46
Second	8.3	2.2	1,544	(67.1)	34
Middle	10.4	3.3	1,637	(85.0)	54
Fourth	14.2	4.4	1,696	96.4	74
Highest	13.1	5.5	1,908	90.1	105
Total	10.8	3.8	8,239	82.0	312

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

Men in Kampot/Kep (13 percent), Kampong Cham (6 percent), and Kandal (6 percent) are most likely to report having engaged in paid sex in the past 12 months. Men between the ages of 25 and 29 are more likely than those in other age groups to report having paid money for sex. Urban men and the wealthiest men are much more likely to report having paid for sex in the past year. Divorced men are more likely than men in other marital status categories to report having paid sex, with 18 percent having engaged in such a transaction in the past year. Eighty-two percent of men who had paid for sex in the past year reporting using a condom during their most recent paid sex; due to the small number of cases, differentials between subgroups should be interpreted with caution.

15.5 TESTING FOR HIV

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so they can remain disease free. For those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future. Testing of pregnant women is especially important so that action can be taken to prevent mother-to-child transmission.

To obtain information on the prevalence of HIV testing, all respondents were asked whether they had ever been tested for HIV. If they said that they had, they were asked whether they had received the results of their last test. Women giving birth in the two-year period before the survey were asked additional questions regarding testing that may have occurred as part of any antenatal care they received prior to the birth.

Tables 15.9.1 and 15.9.2 show that, among the adult population age 15-49, 25 percent of both women and men have been tested for HIV at some time. The majority of women and men who were tested indicated that they had received the results of their test. Eight percent of women and 6 percent of men said that they had received results from an HIV test taken during the 12 months prior to the survey. The proportions of both women and men ever tested were higher among those age 20 and older than among those younger than 20. Testing rates were highest among ever-married women, whereas in men rates were highest among never-married men who have ever had sex (45 percent) and among widowed, divorced, and separated men (44 percent). Urban residents, residents of Phnom Penh, those with a secondary education or higher, and those in the highest wealth quintile had higher testing rates than their counterparts.

Table 15.9.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Cambodia 2010

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	71.1	18.1	1.2	80.8	100.0	19.2	8.2	6,889
15-19	65.3	6.9	0.5	92.6	100.0	7.4	3.7	3,734
20-24	78.0	31.4	1.9	66.7	100.0	33.3	13.5	3,155
25-29	75.9	38.4	2.0	59.6	100.0	40.4	13.5	3,262
30-39	69.5	28.3	1.3	70.4	100.0	29.6	8.1	4,211
40-49	60.0	15.5	0.6	83.9	100.0	16.1	3.5	4,393
Marital status								
Never married	66.2	5.5	0.4	94.0	100.0	6.0	2.1	5,783
Married/living together	70.7	31.6	1.6	66.8	100.0	33.2	10.9	11,626
Divorced/separated/widowed	66.0	27.8	1.2	71.0	100.0	29.0	7.9	1,345
Residence								
Urban	82.5	37.1	0.9	62.0	100.0	38.0	9.4	3,936
Rural	65.4	19.6	1.3	79.1	100.0	20.9	7.6	14,818
Province								
Banteay Mean Chey	78.0	26.8	1.1	72.0	100.0	28.0	10.3	719
Kampong Cham	55.4	14.1	1.3	84.6	100.0	15.4	7.9	2,111
Kampong Chhnang	85.8	15.3	0.6	84.1	100.0	15.9	5.5	739
Kampong Speu	58.6	21.2	1.6	77.2	100.0	22.8	8.1	1,060
Kampong Thom	62.1	21.3	1.2	77.4	100.0	22.6	6.0	935
Kandal	66.2	21.7	2.9	75.4	100.0	24.6	5.0	1,920
Kratie	39.5	13.9	0.3	85.8	100.0	14.2	4.4	438
Phnom Penh	81.2	38.1	1.0	60.9	100.0	39.1	8.9	2,183
Prey Veng	72.6	22.9	1.6	75.5	100.0	24.5	10.4	1,341
Pursat	82.9	22.8	0.4	76.8	100.0	23.2	9.9	534
Siem Reap	75.1	30.7	1.4	67.8	100.0	32.2	7.1	1,233
Svay Rieng	78.9	20.0	1.8	78.2	100.0	21.8	6.8	753
Takeo	69.0	26.2	0.4	73.4	100.0	26.6	14.4	1,175
Otdar Mean Chey	90.5	17.3	0.5	82.1	100.0	17.9	4.6	252
Battambang/Pailin	77.6	31.3	0.5	68.2	100.0	31.8	11.5	1,320
Kampot/Kep	58.2	14.6	0.4	85.0	100.0	15.0	6.0	891
Preah Sihanouk/Koh Kong	70.0	26.1	0.3	73.5	100.0	26.5	6.0	439
Preah Vihear/Steung Treng	40.0	10.1	0.7	89.2	100.0	10.8	3.0	430
Mondol Kiri/Rattanak Kiri	56.8	8.0	0.4	91.6	100.0	8.4	3.0	281
Education								
No schooling	51.3	15.3	1.4	83.4	100.0	16.6	5.8	2,973
Primary	65.6	22.5	1.4	76.1	100.0	23.9	7.5	9,265
Secondary and higher	81.9	28.2	0.8	71.0	100.0	29.0	9.7	6,516
Wealth quintile								
Lowest	54.1	15.9	1.2	82.9	100.0	17.1	6.1	3,388
Second	60.5	17.2	1.0	81.9	100.0	18.1	7.4	3,516
Middle	67.5	19.9	2.0	78.0	100.0	22.0	7.4	3,594
Fourth	74.0	24.0	0.9	75.2	100.0	24.8	8.9	3,827
Highest	84.0	36.1	0.9	63.0	100.0	37.0	9.6	4,428
Total	69.0	23.3	1.2	75.5	100.0	24.5	8.0	18,754

[1] Includes "don't know/missing"

Table 15.9.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Cambodia 2010

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	65.6	12.3	0.1	87.6	100.0	12.4	5.2	3,265
15-19	58.5	3.1	0.1	96.8	100.0	3.2	1.8	1,863
20-24	75.0	24.6	0.1	75.3	100.0	24.7	9.7	1,402
25-29	80.2	40.6	1.1	58.3	100.0	41.7	8.9	1,377
30-39	71.8	34.6	1.2	64.2	100.0	35.8	7.3	1,849
40-49	64.8	22.4	0.7	76.8	100.0	23.2	4.2	1,748
Marital status								
Never married	66.0	11.4	0.2	88.4	100.0	11.6	4.0	3,181
Ever had sex	86.9	44.1	0.5	55.4	100.0	44.6	14.6	437
Never had sex	62.7	6.2	0.1	93.7	100.0	6.3	2.3	2,744
Married/living together	71.1	31.8	0.9	67.3	100.0	32.7	7.3	4,852
Divorced/separated/widowed	76.5	41.4	2.5	56.1	100.0	43.9	11.1	206
Residence								
Urban	89.9	43.4	0.3	56.3	100.0	43.7	10.5	1,697
Rural	63.9	19.2	0.8	80.1	100.0	19.9	4.9	6,542
Province								
Banteay Mean Chey	61.8	26.0	0.5	73.5	100.0	26.5	7.6	275
Kampong Cham	44.4	17.8	1.2	81.0	100.0	19.0	3.9	990
Kampong Chhnang	75.2	16.0	0.3	83.8	100.0	16.2	3.3	341
Kampong Speu	71.7	19.2	0.6	80.2	100.0	19.8	4.4	468
Kampong Thom	53.4	19.9	1.3	78.8	100.0	21.2	5.5	390
Kandal	62.0	29.1	1.7	69.2	100.0	30.8	4.2	796
Kratie	46.1	15.6	0.0	84.4	100.0	15.6	2.9	191
Phnom Penh	97.1	49.4	0.2	50.5	100.0	49.5	13.1	945
Prey Veng	96.9	24.8	0.3	74.8	100.0	25.2	5.9	598
Pursat	72.5	17.5	0.6	81.8	100.0	18.2	5.1	256
Siem Reap	63.9	21.3	0.5	78.2	100.0	21.8	5.9	517
Svay Rieng	60.7	19.0	0.3	80.6	100.0	19.4	6.9	331
Takeo	64.8	22.4	1.1	76.4	100.0	23.6	5.2	525
Otdar Mean Chey	79.8	8.2	0.9	90.9	100.0	9.1	2.8	122
Battambang/Pailin	67.9	28.8	0.0	71.2	100.0	28.8	10.5	603
Kampot/Kep	58.7	13.1	0.8	86.1	100.0	13.9	3.6	362
Preah Sihanouk/Koh Kong	89.9	23.2	0.0	76.8	100.0	23.2	4.5	203
Preah Vihear/Steung Treng	81.3	8.2	0.3	91.5	100.0	8.5	1.9	193
Mondol Kiri/Rattanak Kiri	77.8	12.0	0.6	87.4	100.0	12.6	3.2	132
Education								
No schooling	44.5	9.6	1.5	88.9	100.0	11.1	3.3	641
Primary	60.7	16.7	0.7	82.5	100.0	17.5	3.7	3,394
Secondary and higher	79.9	32.4	0.5	67.1	100.0	32.9	8.4	4,205
Wealth quintile								
Lowest	51.3	10.5	0.8	88.7	100.0	11.3	2.4	1,454
Second	64.1	15.8	1.1	83.1	100.0	16.9	4.6	1,544
Middle	62.6	18.9	0.9	80.2	100.0	19.8	5.0	1,637
Fourth	72.0	26.8	0.4	72.8	100.0	27.2	6.3	1,696
Highest	90.4	43.5	0.4	56.2	100.0	43.8	10.7	1,908
Total	69.3	24.2	0.7	75.2	100.0	24.8	6.1	8,239

[1] Includes "don't know/missing"

Two-thirds of women and men in Cambodia know where to get an HIV test. Knowledge about where to get an HIV test is more common among women and men in urban areas than in rural areas. It is also higher among educated women and men and among those living in richer households.

Table 15.10 presents data on HIV/AIDS information and counseling during antenatal care. Among women who had given birth in the past two years, 47 percent received information and counseling about HIV/AIDS during antenatal care for their most recent birth. Forty-three percent of the women reported that they were tested for HIV during antenatal care; most of them also received the test results and posttest counseling (38 percent). Taking both of these elements into account, the 2010 CDHS results indicate that 32 percent of women giving birth during the two-year period prior to the survey were counseled about HIV, were tested for HIV, and received the test results. Women living in urban areas were more likely than those living in rural areas to have received comprehensive

Table 15.10 Pregnant women counseled 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 counseling during antenatal care for their most recent birth, and percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, Cambodia 2010

Background characteristic	Percentage who received HIV counseling during antenatal care[1]	Percentage who were offered and accepted an HIV test during antenatal care and who[2]:			Percentage who were counseled and were offered and accepted an HIV test who[2]:		Number of women who gave birth in the past two years[3]
		Received results and posttest counseling	Received results but not posttest counseling	Did not receive results	Received results	Did not receive results	
Age							
15-24	47.2	41.5	4.0	2.0	33.0	1.5	1,102
15-19	40.4	34.0	5.7	3.0	25.4	1.6	179
20-24	48.6	43.0	3.7	1.8	34.5	1.5	923
25-29	48.4	39.1	4.3	1.0	33.4	0.6	1,066
30-39	44.7	35.7	1.5	1.7	29.2	0.9	870
40-49	39.5	24.4	2.6	0.3	20.3	0.3	149
Residence							
Urban	64.2	69.0	3.6	0.7	57.9	0.5	508
Rural	43.2	32.5	3.3	1.6	26.5	1.1	2,679
Province							
Banteay Mean Chey	50.3	53.3	0.7	2.2	38.8	1.3	126
Kampong Cham	29.0	25.6	4.3	2.5	19.0	1.0	349
Kampong Chhnang	44.9	24.1	1.0	1.2	23.4	1.2	132
Kampong Speu	39.3	33.3	1.6	2.3	27.1	1.6	187
Kampong Thom	43.3	34.2	2.5	1.3	25.8	0.0	152
Kandal	33.8	26.3	8.5	1.3	23.1	0.0	306
Kratie	28.0	23.0	1.4	0.6	18.2	0.6	91
Phnom Penh	63.3	69.8	1.7	0.5	57.8	0.0	259
Prey Veng	69.3	46.1	0.0	3.7	39.0	3.7	288
Pursat	83.1	44.8	0.7	1.4	42.4	1.4	116
Siem Reap	62.2	51.6	5.7	2.7	48.6	1.9	222
Svay Rieng	56.5	29.9	9.5	2.8	31.9	2.3	116
Takeo	43.9	39.6	3.1	0.0	31.8	0.0	206
Otdar Mean Chey	48.5	32.0	2.4	0.9	30.4	0.9	42
Battambang/Pailin	43.8	56.4	6.4	0.0	37.1	0.0	235
Kampot/Kep	38.0	27.9	0.0	0.0	19.9	0.0	130
Preah Sihanouk/Koh Kong	53.7	40.5	3.6	0.0	35.9	0.0	73
Preah Vihear/Steung Treng	26.0	7.3	1.9	0.5	6.9	0.5	88
Mondol Kiri/Rattanak Kiri	4.3	4.3	0.9	0.0	1.5	0.0	69
Education							
No schooling	36.5	23.6	2.0	2.0	18.3	2.0	559
Primary	44.3	34.2	3.6	1.4	28.5	0.9	1,773
Secondary and higher	57.9	56.5	3.8	1.3	46.4	0.4	855
Total	46.6	38.3	3.4	1.5	31.5	1.0	3,187

[1] In this context, "counseled" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.
[2] Only women who were offered the test are included here; women who were either required to take the test 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.

HIV/AIDS counseling and testing services during antenatal care. According to province, pregnant women living in Phnom Penh (58 percent) were most likely to have received HIV/AIDS counseling and testing services, followed by women living in Siem Reap (49 percent), Pursat (42 percent), Prey Veng (39 percent), and Banteay Mean Chey (39 percent). Women with a secondary education or higher were two and a half times more likely than those with no education to receive full counseling and testing services during pregnancy.

15.6 Reports of Recent Sexually Transmitted Infections

Information about the incidence of sexually transmitted infections is useful not only as a marker of unprotected sexual intercourse but also as a cofactor for HIV transmission. The 2010 CDHS asked respondents who had ever had sex whether they had had an STI in the past 12 months. They were also asked whether, in the past year, they had experienced a genital sore or ulcer and whether they had any genital discharge. These symptoms have been shown useful in identifying STIs in men. They are less easily interpreted in women because women are likely to experience more non-STI conditions of the reproductive tract that produce a discharge.

Table 15.11 shows the self-reported prevalence of STIs and STI symptoms among women and men age 15-49 who have ever had sexual intercourse. Four percent of women and less than 1 percent of men who have ever had sex reported having had an STI in the 12 months before the survey. A higher proportion of women (10 percent) than men (1 percent) reported having had an abnormal genital discharge. Furthermore, 4 percent of women and 1 percent of men reported having had a genital sore or ulcer in the past 12 months. Overall, 11 percent of women and 2 percent of men had either an STI or symptoms of an STI in the 12 months preceding the survey.

Table 15.11 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Cambodia 2010

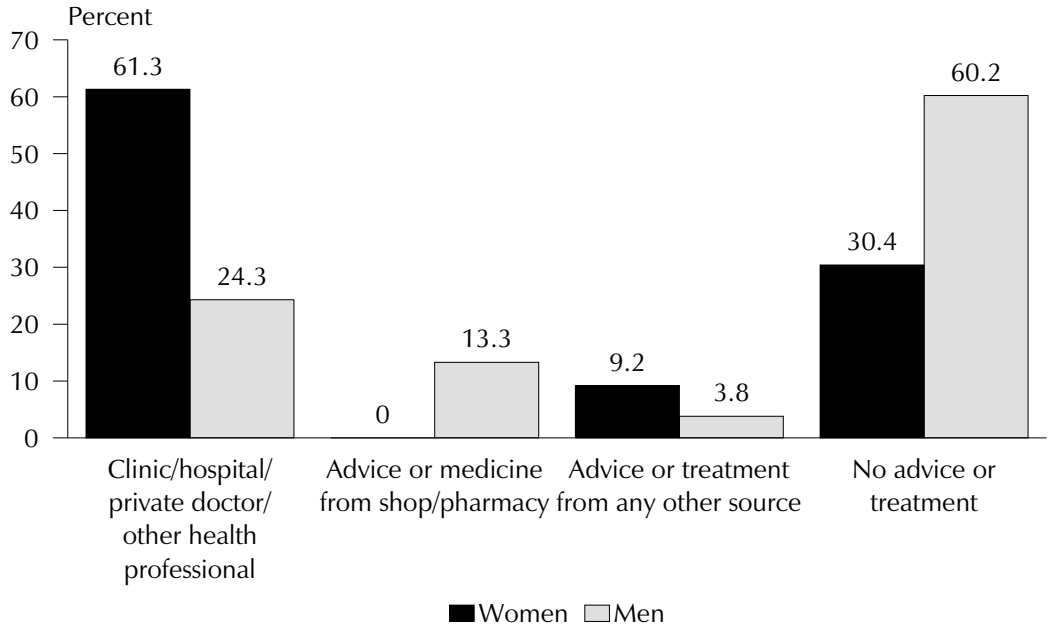
	Women					Men				
Background characteristic	STI	Bad smelling/ abnormal genital discharge	Genital sore/ulcer	STI/genital discharge/sore or ulcer	Number of respondents who ever had sexual intercourse	STI	Bad smelling/ abnormal genital discharge	Genital sore/ulcer	STI/genital discharge/sore or ulcer	Number of respondents who ever had sexual intercourse
Age										
15-24	3.5	9.6	3.3	11.2	2,206	1.1	1.4	1.5	3.0	736
15-19	2.2	9.3	2.2	10.2	410	3.2	0.0	0.2	3.4	90
20-24	3.8	9.6	3.6	11.4	1,796	0.8	1.6	1.7	2.9	645
25-29	4.7	10.4	4.0	12.3	2,727	0.2	1.7	0.9	2.4	1,205
30-39	5.4	10.9	4.1	12.5	3,896	0.5	0.7	0.6	1.5	1,812
40-49	3.8	8.2	3.1	9.8	4,151	0.2	0.3	1.0	1.3	1,738
Marital status										
Never married	*	*	*	*	13	1.4	3.4	1.2	4.9	437
Married or living together	4.6	10.0	3.6	11.6	11,624	0.3	0.6	0.9	1.5	4,849
Divorced/separated/widowed	3.0	7.0	3.5	8.8	1,343	1.2	2.5	0.2	3.6	206
Residence										
Urban	5.7	9.5	3.3	10.6	2,345	0.3	0.5	0.4	1.1	1,106
Rural	4.1	9.8	3.7	11.5	10,635	0.4	1.0	1.0	2.0	4,386
Province										
Banteay Mean Chey	3.5	6.3	2.8	8.2	508	2.8	1.5	1.4	3.4	196
Kampong Cham	2.0	9.3	5.5	10.3	1,598	0.0	0.7	1.1	1.9	700
Kampong Chhnang	7.9	29.0	2.3	29.5	496	0.3	0.5	1.2	1.2	212
Kampong Speu	1.6	2.8	0.4	3.4	775	0.0	0.0	0.0	0.0	299
Kampong Thom	9.4	15.5	9.0	17.9	638	0.4	7.7	10.4	16.6	252
Kandal	0.2	9.1	1.2	9.6	1,255	0.5	0.9	0.0	1.4	534
Kratie	5.1	7.3	1.9	8.3	315	0.1	0.7	0.0	0.7	138
Phnom Penh	7.1	9.2	2.9	9.5	1,236	0.6	0.7	0.5	0.9	618
Prey Veng	9.6	9.9	5.0	13.8	1,064	0.4	0.1	0.0	0.5	455
Pursat	12.5	14.9	4.7	21.3	360	0.0	0.0	0.1	0.1	165
Siem Reap	3.2	13.8	5.6	15.5	838	0.6	0.0	0.2	0.6	368
Svay Rieng	1.5	9.0	4.1	10.4	566	0.0	0.9	0.1	0.9	230
Takeo	2.5	5.7	1.3	6.1	863	0.4	1.3	1.4	3.2	333
Otdar Mean Chey	0.9	2.0	0.9	2.7	163	0.8	1.2	1.1	2.0	75
Battambang/Pailin	4.0	10.0	5.6	13.9	867	0.5	0.5	0.0	0.5	341
Kampot/Kep	3.8	2.6	1.0	4.3	637	0.0	0.0	0.0	0.0	239
Preah Sihanouk/Koh Kong	8.2	18.4	7.1	20.6	298	0.0	0.0	0.4	0.4	130
Preah Vihear/Steung Treng	1.2	4.4	2.6	4.9	288	0.5	0.8	0.8	0.8	111
Mondol Kiri/Rattanak Kiri	6.4	6.7	1.6	10.3	215	0.0	0.0	0.0	0.0	94
Education										
No schooling	4.7	10.9	3.9	12.8	2,591	0.2	0.5	1.1	1.4	551
Primary	4.5	10.4	4.1	12.2	7,235	0.4	1.1	1.2	2.3	2,513
Secondary and higher	4.0	7.2	2.3	8.3	3,154	0.5	0.7	0.6	1.5	2,428
Wealth quintile										
Lowest	4.7	11.5	4.9	13.6	2,637	0.3	0.9	1.2	1.9	1,029
Second	4.4	10.6	3.8	12.7	2,602	0.4	0.9	1.4	2.4	1,063
Middle	3.8	9.2	3.3	10.8	2,542	0.3	1.3	0.4	1.9	1,069
Fourth	4.2	9.2	3.4	10.7	2,550	0.5	0.5	0.7	1.4	1,086
Highest	5.0	8.0	2.6	8.9	2,649	0.5	0.7	0.9	1.6	1,244
Total	4.4	9.7	3.6	11.4	12,980	0.4	0.9	0.9	1.8	5,492

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

The results presented in Table 15.11 indicate that the proportion of respondents who reported having had an STI or an STI symptom varied considerably across provinces. Among women, self-reported prevalence of STIs and STI symptoms ranged from a low of 3 percent in Otdar Mean Chey and Kampong Speu to a high of 21 percent in Pursat and 30 percent in Kampong Chhnang. Among men, 17 percent reported STIs or symptoms of STIs in Kampong Thom, as compared with almost none in Kampong Speu, Kampot/Kep, and Mondol Kiri/Rattanak Kiri.

Figure 15.1 shows that, among those reporting a sexually transmitted infection or symptom thereof in the past year, women were more likely to seek treatment than men (70 percent versus 41 percent). Moreover, among those who sought treatment, women were more likely than men to seek treatment from a health professional (61 percent versus 24 percent).

Figure 15.1 Women and Men Seeking Treatment for STIs



CDHS 2010

15.7 INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effects of unsafe practices such as reuse of injection equipment. As a consequence, the proportion of injections given with reused injection equipment is an important prevention indicator in initiatives designed to control the spread of HIV/AIDS.

Table 15.12 presents data on the prevalence of injections among respondents. Respondents were asked whether they had had any injections given by a health worker in the 12 months preceding the survey and, if so, the number of injections they had received and whether 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 calculations.

Women were more likely than men to report having received at least one injection from a health provider (36 percent and 28 percent, respectively). On average, women had received 3.3 injections, and men had received 1.8 injections.

The largest variations in injection prevalence were across provinces. Among women, for example, the percentage reporting that they had received at least one injection from a health worker during the 12 months prior to the survey varied from a low of 22 percent in Svay Rieng to a high of 56 percent in Kampong Thom. Among men, the likelihood of having received an injection was lowest in Pursat (20 percent) and highest in Prey Veng (38 percent). Urban residents were somewhat less likely than rural residents to have received at least one injection from a health provider. The associations between receiving at least one injection from a health provider and background characteristics such as education and wealth were not consistent in direction.

Table 15.12 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, Cambodia 2010

	Women					Men				
Background characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of respondents	For last injection, syringe and needle taken from a new, unopened package	Number of respondents receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of respondents	For last injection, syringe and needle taken from a new, unopened package	Number of respondents receiving medical injections in the past 12 months
Age										
15-24	33.7	2.3	6,889	98.1	2,325	25.6	1.3	3,265	98.9	837
15-19	29.7	1.7	3,734	97.9	1,110	25.6	1.1	1,863	99.1	477
20-24	38.5	3.0	3,155	98.4	1,215	25.7	1.5	1,402	98.7	360
25-29	39.8	3.8	3,262	98.5	1,299	29.3	2.3	1,377	96.5	404
30-39	38.0	3.9	4,211	98.4	1,599	28.6	2.0	1,849	96.9	529
40-49	33.1	3.7	4,393	98.0	1,453	29.7	2.3	1,748	96.8	519
Residence										
Urban	29.3	2.2	3,936	98.6	1,153	23.7	1.2	1,697	98.0	402
Rural	37.3	3.5	14,818	98.2	5,522	28.8	2.0	6,542	97.5	1,887
Province										
Banteay Mean Chey	42.9	2.5	719	97.4	308	35.5	2.4	275	93.2	98
Kampong Cham	33.9	5.1	2,111	97.4	715	29.3	1.1	990	93.6	290
Kampong Chhnang	36.3	5.9	739	99.9	268	21.7	1.9	341	100.0	74
Kampong Speu	36.1	3.3	1,060	96.5	383	29.7	1.5	468	99.2	139
Kampong Thom	55.6	4.1	935	99.4	519	26.7	1.7	390	98.8	104
Kandal	44.7	4.7	1,920	99.1	859	36.5	3.7	796	99.1	290
Kratie	37.1	4.0	438	96.5	163	36.0	5.3	191	98.4	69
Phnom Penh	25.0	1.0	2,183	98.8	545	21.8	0.9	945	97.6	206
Prey Veng	39.6	3.3	1,341	100.0	532	37.6	2.0	598	100.0	225
Pursat	37.8	4.1	534	98.9	202	19.7	1.4	256	100.0	51
Siem Reap	33.5	2.4	1,233	97.0	413	25.6	2.6	517	96.7	133
Svay Rieng	22.3	1.1	753	99.8	168	20.6	2.0	331	98.5	68
Takeo	37.0	3.1	1,175	97.1	435	26.8	1.1	525	98.9	141
Otdar Mean Chey	34.0	2.0	252	98.6	86	21.8	1.2	122	100.0	27
Battambang/Pailin	29.5	3.2	1,320	97.3	390	23.8	1.9	603	98.8	143
Kampot/Kep	35.6	2.6	891	97.1	317	31.1	1.5	362	93.5	113
Preah Sihanouk/Koh Kong	29.6	3.1	439	99.7	130	15.2	1.2	203	96.7	31
Preah Vihear/Steung Treng	29.1	1.4	430	98.8	125	21.5	0.4	193	95.0	41
Mondol Kiri/Rattanak Kiri	41.8	2.3	281	95.9	117	35.9	1.0	132	98.4	47
Education										
No schooling	33.8	3.3	2,973	97.9	1,006	20.5	1.5	641	95.0	131
Primary	36.5	3.5	9,265	98.0	3,385	27.9	1.9	3,394	96.8	948
Secondary and higher	35.1	2.8	6,516	98.8	2,284	28.8	1.8	4,205	98.4	1,210
Wealth quintile										
Lowest	33.3	3.0	3,388	98.0	1,127	23.9	1.7	1,454	94.6	348
Second	36.7	3.1	3,516	98.6	1,291	27.2	2.2	1,544	97.6	420
Middle	38.3	3.6	3,594	97.8	1,375	29.0	1.7	1,637	98.3	475
Fourth	38.1	4.1	3,827	98.4	1,458	32.0	2.2	1,696	98.5	543
Highest	32.2	2.6	4,428	98.4	1,424	26.4	1.4	1,908	97.8	504
Total	35.6	3.3	18,754	98.2	6,675	27.8	1.8	8,239	97.6	2,289

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker.

The majority of recent injections (98 percent among both women and men) were administered with a needle and syringe taken from a newly opened package.

15.8 HIV/AIDS-Related Knowledge and Behavior among Youth

Knowledge of HIV/AIDS issues and related sexual behavior among youth age 15-24 is of particular interest because the period between sexual initiation and marriage is, for many young people, a time of sexual experimentation that may involve high-risk behaviors. This section considers a number of issues that relate to both transmission and prevention of HIV/AIDS among youth, including the extent to which youth have comprehensive knowledge of HIV/AIDS transmission and prevention modes and knowledge of a source where they can obtain condoms. Issues such as abstinence, age at sexual debut, and condom use are also covered in this section.

15.8.1 Knowledge about HIV/AIDS and Source for Condoms

Knowledge of how HIV is transmitted is crucial in enabling young people to avoid AIDS. Young people are often at greater risk because they may have shorter relationships with more partners

or engage in other risky behaviors. As discussed earlier, comprehensive knowledge is defined as knowing that people can reduce their chances of getting the AIDS virus by having sex with only one uninfected faithful partner and by using condoms consistently, that a healthy-looking person can have the AIDS virus, and that HIV cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS.

Table 15.13 shows that fewer than half of women and men age 15-24 (44 percent) know all of these facts about HIV/AIDS. The level of comprehensive knowledge about HIV/AIDS slightly increases with age in the youth population. Among young women, comprehensive knowledge is somewhat higher among the never-married than the ever-married (46 percent versus 41 percent). Among young men, comprehensive knowledge is highest among those who have never been married but have had sex (62 percent).

Table 15.13 Comprehensive knowledge about AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage of young women with knowledge of a source of condoms, by background characteristics, Cambodia 2010

	Women			Men	
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of respondents	Percentage with comprehensive knowledge of AIDS[1]	Number of respondents
Age					
15-19	42.8	59.4	3,734	40.9	1,863
15-17	41.5	56.2	2,381	37.9	1,169
18-19	45.1	65.1	1,353	46.1	694
20-24	46.2	74.0	3,155	47.5	1,402
20-22	46.4	71.8	1,931	45.7	893
23-24	46.0	77.4	1,224	50.5	509
Marital status					
Never married	46.1	62.3	4,687	44.0	2,761
Ever had sex	*	*	7	61.8	232
Never had sex	46.1	62.3	4,680	42.3	2,529
Ever married	40.7	74.1	2,202	42.5	504
Residence					
Urban	54.7	78.7	1,591	66.9	715
Rural	41.3	62.3	5,297	37.2	2,550
Province					
Banteay Mean Chey	32.8	70.1	271	47.5	97
Kampong Cham	30.6	59.2	703	52.9	383
Kampong Chhnang	46.9	94.3	269	54.3	134
Kampong Speu	63.3	47.5	391	54.9	190
Kampong Thom	44.0	49.3	337	27.6	161
Kandal	74.1	60.8	722	4.6	296
Kratie	43.1	44.6	149	48.3	65
Phnom Penh	53.7	81.2	892	79.8	400
Prey Veng	33.6	68.4	360	52.8	190
Pursat	24.6	73.4	206	9.6	96
Siem Reap	12.6	84.9	491	55.2	200
Svay Rieng	24.4	74.5	244	37.7	115
Takeo	52.0	63.2	382	62.8	225
Otdar Mean Chey	59.2	88.6	118	21.4	57
Battambang/Pailin	45.1	57.3	560	1.9	295
Kampot/Kep	47.3	52.2	321	60.5	146
Preah Sihanouk/Koh Kong	59.9	73.6	181	57.2	78
Preah Vihear/Steung Treng	40.8	50.3	184	34.9	85
Mondol Kiri/Rattanak Kiri	4.7	51.6	109	14.9	51
Education					
No schooling	15.1	49.2	420	8.5	104
Primary	32.6	59.4	2,607	27.5	1,115
Secondary and higher	55.5	72.5	3,861	54.4	2,045
Wealth quintile					
Lowest	27.7	55.7	1,101	29.8	537
Second	36.7	60.0	1,172	36.7	581
Middle	41.1	60.3	1,321	39.2	663
Fourth	49.6	68.5	1,526	42.5	704
Highest	57.9	78.9	1,768	63.6	780
Total	44.4	66.1	6,889	43.7	3,265

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention (mosquito bites and sharing food). The components of comprehensive knowledge are presented in Tables 15.2, 15.3.1, and 15.3.2.
[2] For this table, the following responses are not considered sources for condoms: friends, family members, and home.

As expected, comprehensive HIV/AIDS knowledge is much more common among urban than rural youth. Among young women, the level of comprehensive knowledge ranges from a low of 5 percent in Mondol Kiri/Rattanak Kiri to a high of 74 percent in Kandal. Among young men, comprehensive knowledge is lowest in Battambang/Pailin (2 percent) and highest in Phnom Penh (80 percent). Young women with a secondary education or higher are almost four times as likely as those with no schooling to have comprehensive knowledge of HIV/AIDS, whereas highly educated young men are six times as likely as those with no education to have comprehensive knowledge. Comprehensive knowledge about HIV/AIDS among youth increases with household wealth.

Because condoms play an important role in combating the transmission of HIV, young women were asked whether they knew where condoms could be obtained. Only "formal" sources of condoms were counted; friends and family and other similar sources were not included.

As shown in Table 15.13, 66 percent of young women know where to obtain a condom. Knowledge of a condom source tends to increase with age. Ever-married young women are more likely to know about a source for condoms than those who have never been married. Women in urban areas are more likely than those in rural areas to know of a condom source. Knowledge of a condom source among women is lowest in Kratie (45 percent) and highest in Kampong Chhnang (94 percent). Consistent with the patterns observed for other indicators, young women who are better educated and live in wealthier households are more likely than their counterparts to know a source of condoms.

15.8.2 Age at First Sex and Condom Use at First Sexual Intercourse

Information from the 2010 CDHS can be used to look at several important issues related to the initiation of sexual activity among youth, such as age at first sex and condom use at first sexual intercourse.

Table 15.14 shows the proportion of women and men in the 15-24 age cohort who had sex before age 15 and before age 18. Approximately 1 percent of young women and less than 1 percent of young men had sex by age 15, whereas 14 percent of young women and 4 percent of young men had sex by age 18.

In Cambodia, it is rare for women to have sex prior to marriage; therefore, given that the median age at first marriage among Cambodian women is 20.3 years, very few women report that they have had sex before the age of 15. Young women who live in Mondol Kiri/Rattanak Kiri, perhaps by virtue of having a comparatively younger median age at first marriage of 19.3 years, are most likely to report having had sexual intercourse before the age of 15 (4 percent).

Among young women in the 18-24 age group, those age 18-19 were less likely than those age 20-24 to say they had initiated sex before age 18. Young women in urban areas were less likely to have had sex by age 18 than young women in rural areas (6 percent versus 17 percent). The proportion of women age 18-24 who reported having had sex before the age of 18 ranged from 3 percent in Phnom Penh to 34 percent in Mondol Kiri/Rattanak Kiri. Education and wealth showed a negative association with early initiation of sexual activity: as education and wealth increased, the proportion of women reporting sex before the age of 18 decreased.

Differentials in these indicators for young men tended to be minor. This is in part because the proportions initiating sexual activity before the age of 18 were not large in most subgroups with the exception of those living in the provinces of Mondol Kiri/Rattanak Kiri, Pursat, Prey Veng, Siem Reap, and Banteay Mean Chey (with proportions ranging from 6 percent to 8 percent).

Table 15.14 Age at first sexual intercourse among youth

Percentage of young women and of young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Cambodia 2010

Background characteristic	Women				Men			
	Percentage who had sexual intercourse before age 15	Number of respondents age 15-24	Percentage who had sexual intercourse before age 18	Number of respondents age 18-24	Percentage who had sexual intercourse before age 15	Number of respondents age 15-24	Percentage who had sexual intercourse before age 18	Number of respondents age 18-24
Age								
15-19	0.4	3,734	na	na	0.1	1,863	na	na
15-17	0.4	2,381	na	na	0.0	1,169	na	na
18-19	0.5	1,353	12.4	1,353	0.2	694	2.9	694
20-24	0.8	3,155	14.5	3,155	0.1	1,402	3.8	1,402
20-22	0.7	1,931	14.7	1,931	0.2	893	4.3	893
23-24	0.9	1,224	14.2	1,224	0.0	509	3.0	509
Marital status								
Never married	0.0	4,687	0.0	2,413	0.1	2,761	1.2	1,599
Ever married	1.9	2,202	29.8	2,096	0.4	504	11.1	497
Residence								
Urban	0.1	1,591	5.5	1,128	0.2	715	3.2	506
Rural	0.8	5,297	16.6	3,380	0.1	2,550	3.6	1,590
Province								
Banteay Mean Chey	1.8	271	20.1	181	0.0	97	5.7	60
Kampong Cham	0.2	703	16.8	486	0.0	383	3.7	248
Kampong Chhnang	1.3	269	15.4	173	0.0	134	4.7	76
Kampong Speu	0.8	391	15.8	242	0.0	190	2.5	121
Kampong Thom	1.1	337	13.8	209	0.0	161	0.5	101
Kandal	0.5	722	12.2	428	0.0	296	4.1	181
Kratie	0.7	149	14.0	87	0.0	65	0.0	42
Phnom Penh	0.0	892	3.4	661	0.3	400	2.0	299
Prey Veng	0.4	360	21.8	249	0.0	190	6.5	133
Pursat	0.8	206	11.3	140	0.0	96	7.3	58
Siem Reap	0.0	491	13.9	325	0.9	200	6.0	137
Svay Rieng	0.9	244	16.4	147	0.1	115	4.0	66
Takeo	0.0	382	14.1	237	0.0	225	0.9	123
Otdar Mean Chey	0.6	118	12.2	75	0.0	57	3.7	38
Battambang/Pailin	0.9	560	12.5	366	0.0	295	2.4	180
Kampot/Kep	0.4	321	18.3	195	0.0	146	5.4	94
Preah Sihanouk/Koh Kong	1.2	181	14.7	119	0.0	78	1.5	55
Preah Vihear/Steung Treng	1.1	184	19.2	121	0.0	85	2.9	53
Mondol Kiri/Rattanak Kiri	4.2	109	33.8	66	0.0	51	8.0	31
Education								
No schooling	3.2	420	27.5	351	0.0	104	10.4	86
Primary	0.8	2,607	20.0	1,814	0.2	1,115	4.2	746
Secondary and higher	0.2	3,861	7.1	2,343	0.1	2,045	2.6	1,265
Wealth quintile								
Lowest	1.1	1,101	25.5	735	0.0	537	4.8	343
Second	0.7	1,172	17.9	734	0.0	581	4.9	398
Middle	0.8	1,321	14.7	844	0.3	663	3.2	382
Fourth	0.4	1,526	11.2	981	0.0	704	3.2	430
Highest	0.3	1,768	6.0	1,213	0.2	780	2.1	543
Total	0.6	6,889	13.9	4,508	0.1	3,265	3.5	2,096

na = Not available

15.8.3 Recent Sexual Activity

The period between age at first sex and age at marriage is often a time of sexual experimentation. Unfortunately, in the era of HIV/AIDS, it can also be a risky time. Table 15.15 presents data on the percentage of never-married young women and men age 15-24 who have never had sexual intercourse, the percentage who had sex in the 12 months preceding the survey, and, among men who have had sexual intercourse, the percentage who used condoms during their most recent sexual intercourse.

The majority of never-married young women (99.8 percent) and men (92 percent) reported that they had never had sex, and as a result the proportions reporting recent sexual activity (i.e., within the 12-month period before the survey) are low (0.1 percent among young women and 5 percent among young men).

Table 15.15 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among men who had premarital sexual intercourse in the past 12 months, the percentage who used a condom during their last sexual intercourse, by background characteristics, Cambodia 2010

	Women			Men				
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never married respondents	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never married respondents	Percentage who used condom at last sexual intercourse	Number of respondents
Age								
15-19	99.9	0.1	3,327	97.2	1.8	1,824	(87.1)	33
15-17	99.9	0.1	2,274	98.8	1.2	1,162	*	13
18-19	99.8	0.1	1,053	94.2	3.0	662	*	20
20-24	99.8	0.2	1,359	80.8	11.0	937	95.2	103
20-22	99.8	0.2	998	84.0	9.9	671	93.9	66
23-24	99.8	0.2	361	72.6	13.9	266	(97.5)	37
Residence								
Urban	99.6	0.4	1,237	82.5	10.5	643	92.2	67
Rural	99.9	0.0	3,450	94.4	3.3	2,118	94.2	69
Province								
Banteay Mean Chey	100.0	0.0	179	87.3	5.8	83	*	5
Kampong Cham	100.0	0.0	417	88.8	7.0	305	*	21
Kampong Chhnang	100.0	0.0	194	96.3	0.7	121	*	1
Kampong Speu	99.8	0.2	253	97.9	0.3	161	*	0
Kampong Thom	99.1	0.6	240	91.7	3.6	145	*	5
Kandal	99.8	0.2	529	91.2	3.9	267	*	10
Kratie	100.0	0.0	103	91.2	7.0	54	*	4
Phnom Penh	99.7	0.3	719	81.6	11.5	354	*	41
Prey Veng	100.0	0.0	205	100.0	0.0	133	*	0
Pursat	100.0	0.0	140	98.1	1.6	80	*	1
Siem Reap	99.7	0.3	332	83.5	10.5	162	*	17
Svay Rieng	99.9	0.0	154	97.6	1.2	94	*	1
Takeo	100.0	0.0	255	93.8	4.6	192	*	9
Otdar Mean Chey	100.0	0.0	83	95.2	2.2	46	*	1
Battambang/Pailin	100.0	0.0	378	94.5	4.4	262	*	11
Kampot/Kep	100.0	0.0	200	96.0	2.0	119	*	2
Preah Sihanouk/Koh Kong	99.3	0.7	126	90.8	3.1	71	*	2
Preah Vihear/Steung Treng	99.9	0.1	120	99.3	0.7	71	*	0
Mondol Kiri/Rattanak Kiri	100.0	0.0	61	91.9	7.2	39	*	3
Education								
No schooling	99.5	0.5	176	97.0	0.0	60	*	0
Primary	99.9	0.1	1,505	93.3	3.3	868	(90.8)	29
Secondary and higher	99.9	0.1	3,006	90.6	5.9	1,832	93.9	107
Wealth quintile								
Lowest	99.9	0.1	598	97.0	1.8	412	*	7
Second	99.9	0.1	735	97.0	1.4	462	*	6
Middle	99.9	0.0	874	93.9	1.9	558	*	11
Fourth	99.9	0.1	1,081	89.8	7.3	631	(93.9)	46
Highest	99.8	0.2	1,399	84.6	9.4	699	96.9	65
Total	99.8	0.1	4,687	91.6	4.9	2,761	93.2	136

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

Given the comparatively small proportion of never-married young women reporting premarital sexual intercourse, differentials in this indicator are generally minimal. Among never-married young men, the proportion reporting premarital sexual activity increases with age, education, and wealth and is higher among urban than rural residents. Phnom Penh (12 percent) and Siem Reap (11 percent) have the highest proportion of never-married young men reporting premarital sex. Among men reporting premarital sex, 93 percent used a condom during their last sexual intercourse.

15.8.4 Multiple Sexual Partnerships

The most common mode of HIV transmission in Cambodia is through unprotected sex with an infected person. To prevent HIV/AIDS transmission, it is important for young people to be faithful to one uninfected partner. Table 15.16 shows the percentage of all young women and men age 15-24 who had had sexual intercourse with more than one partner in the past 12 months, by background characteristics.

Table 15.16 Multiple sexual partners in the past 12 months among youth

Among all young women and men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, by background characteristics, Cambodia 2010

Background characteristic	All women 15-24		All men 15-24	
	Percentage who had 2+partners in the past 12 months	Number of women	Percentage who had 2+partners in the past 12 months	Number of men
Age				
15-19	0.1	3,734	0.3	1,863
15-17	0.1	2,381	0.1	1,169
18-19	0.0	1,353	0.5	694
20-24	0.1	3,155	1.2	1,402
20-22	0.1	1,931	1.0	893
23-24	0.1	1,224	1.4	509
Marital status				
Never married	0.0	4,687	0.5	2,761
Ever married	0.2	2,202	1.3	504
Residence				
Urban	0.2	1,591	0.9	715
Rural	0.0	5,297	0.6	2,550
Education				
No schooling	0.3	420	0.0	104
Primary	0.1	2,607	0.5	1,115
Secondary and higher	0.0	3,861	0.8	2,045
Total 15-24	0.1	6,889	0.7	3,265

Overall, less than 1 percent of young women and almost 1 percent of young men reported having had two or more sexual partners in the past 12 months. There were no variations among women by background characteristics. Among men, those age 23-24 (1.4 percent) and those who had ever been married (1.3 percent) were slightly more likely than other men to have had two or more sexual partners in the past 12 months. There were no significant differences according to other background characteristics.

15.8.5 HIV Testing

Young people may believe there are barriers to accessing and using many health services and facilities, and this is particularly true for sensitive concerns relating to sexual health, such as HIV/AIDS and other STIs. Table 15.17 presents data on the percentage of sexually active youth who had been tested and received their results within the past year. Young women who had had sexual intercourse in the past 12 months were more likely than young men to have been tested for HIV (22 percent and 18 percent, respectively). Testing rates were higher among urban youth, youth with a secondary or higher education, youth in the highest wealth quintile, and young women living in Takeo, Pursat, and Battambang/Pailin.

Table 15.17 Recent HIV tests among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, Cambodia 2010

	Women		Men	
Background characteristic	Percentage who have been tested for HIV and received results in the past 12 months	Number of respondents	Percentage who have been tested for HIV and received results in the past 12 months	Number of respondents
Age				
15-19	25.3	395	16.5	69
15-17	24.5	107	*	20
18-19	25.5	289	(20.8)	49
20-24	20.6	1,694	17.7	554
20-22	24.0	882	17.6	283
23-24	17.0	812	17.7	271
Marital status				
Never married	*	6	16.5	136
Ever married	21.4	2,083	17.8	487
Residence				
Urban	32.2	334	28.5	137
Rural	19.5	1,756	14.4	486
Province				
Banteay Mean Chey	29.3	82	(16.7)	18
Kampong Cham	12.1	274	(17.6)	100
Kampong Chhnang	12.9	73	*	15
Kampong Speu	20.5	136	(20.9)	29
Kampong Thom	19.4	94	*	21
Kandal	16.3	181	(8.2)	39
Kratie	8.9	43	(9.8)	14
Phnom Penh	28.7	163	(32.2)	87
Prey Veng	27.8	145	(18.7)	56
Pursat	35.6	65	*	15
Siem Reap	21.5	147	(16.7)	55
Svay Rieng	23.2	86	(16.4)	22
Takeo	38.5	121	(14.0)	41
Otdar Mean Chey	9.6	33	(2.7)	11
Battambang/Pailin	30.8	172	(31.0)	41
Kampot/Kep	19.2	114	*	21
Preah Sihanouk/Koh Kong	18.7	53	*	9
Preah Vihear/Steung Treng	5.4	60	(0.0)	14
Mondol Kiri/Rattanak Kiri	7.5	46	(2.6)	15
Education				
No schooling	11.9	236	(16.4)	44
Primary	18.4	1,041	6.5	270
Secondary and higher	28.2	813	27.3	309
Wealth quintile				
Lowest	11.3	485	4.1	129
Second	24.0	414	15.7	122
Middle	17.2	430	19.0	113
Fourth	26.8	413	20.7	116
Highest	31.8	348	27.6	143
Total 15-24	21.5	2,090	17.5	623

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

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES 16

The 2010 Cambodia Demographic and Health Survey (CDHS) collected information on the general background characteristics of respondents (age, education, wealth quintile, and employment status) but also information 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 her own earnings and those of her spouse.[1]

In addition, the 2010 CDHS collected information on women's participation in household decisionmaking and their, and their husband's, attitude towards wife beating. This report uses the two DHS-developed indices of women's empowerment to measure women's and men's responses to the questions. The first index is based on the number of household decisions in which the woman participates, and the second is based on the respondent's opinion regarding the number of reasons that justify wife beating. The ranking of women on these two indices is then related to selected demographic and health outcomes, including use of contraception, ideal family size, and the use of reproductive health care services during pregnancy, childbirth, and the postnatal period.

16.1 EMPLOYMENT AND FORMS OF EARNINGS

Employment can be a source of empowerment for both women and men. It is particularly so for women if it puts them in control of the household income. In the 2010 CDHS, respondents were asked whether they were employed at the time of the survey and, if not, whether they were employed in the 12 months preceding the survey.

Table 16.1 shows that 85 percent of currently married women age 15-49 were employed at the time of the survey or within the 12 months preceding the survey, as compared with 99 percent of men. Younger married women (15-24 years old) and men (15-19 years old) were less likely to be employed than older respondents.

Among currently married respondents who had been employed in the past 12 months, 75 percent of women and 80 percent of men received earnings in cash or cash and in-kind. Less than 2 percent of currently married respondents employed in the past 12 months were not paid. The proportion not paid was highest among young respondents.

16.2 CONTROL OVER WOMEN'S AND MEN'S EARNINGS

Currently married women who were employed and received cash for their work were asked to identify the main decisionmaker in the family regarding use of their earnings. They were also asked the relative magnitude of their earnings in comparison with those of their husband. Women whose husbands were employed for cash were asked who usually decides how his earnings are used. Men were also asked who mainly decides how their earnings are used. These pieces of information provide insight into women's level of empowerment in the family and the extent of their control over decisionmaking regarding the use of household income. It is expected that employment and cash earnings are more likely to empower women if they control their own earnings and perceive their earnings as important relative to those of their husband and important to the welfare of the household.

[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 16.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Cambodia 2010

Age	Currently married respondents		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings					
	Percentage employed	Number of women	Cash only	Cash and in-kind	In-kind only	Not paid	Total	Number of women
				WOMEN				
15-19	76.9	382	49.0	27.8	16.6	6.6	100.0	294
20-24	79.5	1,679	50.9	23.2	22.2	3.7	100.0	1,334
25-29	85.2	2,572	50.7	27.0	21.0	1.2	100.0	2,190
30-34	85.3	1,811	50.1	26.9	21.8	1.2	100.0	1,544
35-39	88.0	1,747	46.5	28.8	23.7	1.0	100.0	1,537
40-44	88.5	1,861	44.4	28.6	25.9	1.2	100.0	1,647
45-49	88.0	1,574	41.3	29.9	28.2	0.6	100.0	1,386
Total	85.4	11,626	47.6	27.4	23.4	1.6	100.0	9,933
				MEN				
15-19	(80.6)	31	(51.0)	(9.2)	(23.6)	(16.2)	100.0	25
20-24	98.1	423	50.3	30.1	16.8	2.8	100.0	415
25-29	99.6	1,004	53.8	28.4	17.2	0.5	100.0	1,000
30-34	100.0	922	48.1	32.4	17.8	1.7	100.0	922
35-39	99.7	790	52.6	25.1	20.2	2.0	100.0	787
40-44	98.6	918	56.6	24.5	17.8	1.1	100.0	906
45-49	98.3	764	47.4	30.0	21.8	0.8	100.0	752
Total	99.1	4,852	51.7	28.2	18.7	1.4	100.0	4,806

Note: Figures in parentheses are base on 24-59 unweighted cases.

Table 16.2.1 shows the results on women's control over their cash earnings and the relative magnitude of their earnings relative to those of their husband for currently married women who had cash earnings in the 12 months preceding the survey. Sixty-eight percent of married women who are employed say that they mainly control their cash earnings; 31 percent say that they and their husband jointly decide how her earnings are used; and only 1 percent say that their husband mainly controls their cash earnings.

Women's control over their cash earnings is highest among women in Otdar Mean Chey (97 percent) and Battambang/Pailin (89 percent) and lowest among women in Kampong Chhnang (35 percent) and Mondol Kiri/Rattanak Kiri (39 percent). Overall, there is little variation in control of cash income by background characteristics.

One in two (49 percent) currently married, employed women in Cambodia say they earn less than their husband; 35 percent say they earn about the same amount, and 16 percent say either that they earn more than their husband or that their husband has no earnings. Thus, half of currently married, employed women earn at least as much as their husband. Employed women in urban areas are more likely than employed women in rural areas to earn more than their husbands, as are better educated women and those in higher wealth quintiles.

Table 16.2.1 Control over women's cash earnings and relative magnitude of women's earning

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, Cambodia 2010

	Person who decides how the wife's cash earnings are used						Women's cash earnings compared with husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband/ partner has no earnings	Don't know/ missing	Total	Number of women
Age													
15-19	66.3	30.2	1.8	1.7	0.0	100.0	9.4	58.0	30.9	0.6	1.3	100.0	226
20-24	62.8	35.0	1.3	0.9	0.0	100.0	10.1	59.9	28.7	1.0	0.3	100.0	989
25-29	66.7	31.9	1.0	0.2	0.1	100.0	12.3	54.7	32.3	0.4	0.3	100.0	1,702
30-34	70.6	28.7	0.7	0.0	0.0	100.0	14.2	49.8	35.5	0.3	0.2	100.0	1,189
35-39	68.8	29.6	1.5	0.0	0.2	100.0	15.8	47.4	35.1	0.9	0.8	100.0	1,158
40-44	68.3	30.2	1.3	0.2	0.0	100.0	18.7	43.0	37.7	0.3	0.4	100.0	1,201
45-49	68.7	29.4	1.8	0.0	0.1	100.0	19.7	37.4	41.2	1.6	0.1	100.0	986
Number of living children													
0	67.8	29.1	2.2	0.9	0.0	100.0	13.0	51.0	33.8	1.1	1.1	100.0	566
1-2	66.9	31.8	0.9	0.3	0.1	100.0	14.3	52.2	32.7	0.5	0.3	100.0	3,523
3-4	67.9	30.6	1.5	0.0	0.0	100.0	15.4	46.6	36.6	0.9	0.4	100.0	2,329
5+	69.6	28.9	1.3	0.2	0.1	100.0	16.1	45.1	37.9	0.8	0.1	100.0	1,033
Residence													
Urban	73.8	24.5	1.5	0.1	0.0	100.0	21.1	41.3	36.5	0.6	0.5	100.0	1,461
Rural	66.1	32.3	1.2	0.3	0.1	100.0	13.2	51.4	34.3	0.7	0.3	100.0	5,989
Province													
Banteay Mean Chey	51.6	45.4	3.0	0.0	0.0	100.0	27.8	43.7	28.5	0.0	0.0	100.0	330
Kampong Cham	67.4	31.6	0.7	0.3	0.0	100.0	14.6	49.0	36.0	0.0	0.3	100.0	956
Kampong Chhnang	34.8	63.1	2.2	0.0	0.0	100.0	11.3	48.9	38.6	1.2	0.0	100.0	195
Kampong Speu	72.0	26.8	0.8	0.2	0.2	100.0	11.5	57.8	30.2	0.0	0.5	100.0	664
Kampong Thom	71.5	27.3	0.0	1.2	0.0	100.0	9.1	53.0	36.6	0.6	0.6	100.0	414
Kandal	67.8	31.4	0.4	0.4	0.0	100.0	13.7	51.1	31.4	3.4	0.4	100.0	747
Kratie	60.3	39.2	0.5	0.0	0.0	100.0	15.1	43.9	41.1	0.0	0.0	100.0	167
Phnom Penh	78.1	20.5	1.2	0.1	0.0	100.0	22.6	41.8	34.8	0.2	0.6	100.0	787
Prey Veng	59.7	38.6	1.7	0.0	0.0	100.0	6.9	69.4	23.4	0.3	0.0	100.0	764
Pursat	46.2	53.2	0.6	0.0	0.0	100.0	8.6	48.1	42.1	1.2	0.0	100.0	313
Siem Reap	78.4	20.2	0.6	0.7	0.0	100.0	15.7	41.2	42.0	0.8	0.2	100.0	398
Svay Rieng	48.9	38.2	13.0	0.0	0.0	100.0	16.2	48.9	32.6	2.3	0.0	100.0	123
Takeo	64.5	34.3	0.9	0.0	0.3	100.0	17.4	37.3	44.4	0.6	0.3	100.0	535
Otdar Mean Chey	96.5	2.8	0.4	0.0	0.2	100.0	12.9	50.3	36.4	0.0	0.5	100.0	132
Battambang/Pailin	89.3	9.3	1.5	0.0	0.0	100.0	14.6	48.7	35.5	0.2	1.0	100.0	339
Kampot/Kep	79.2	17.0	2.9	0.6	0.4	100.0	26.4	43.4	27.4	1.8	1.0	100.0	190
Preah Sihanouk/Koh Kong	63.2	36.0	0.6	0.2	0.0	100.0	23.1	39.5	37.0	0.5	0.0	100.0	164
Preah Vihear/Steung Treng	75.8	22.9	1.1	0.3	0.0	100.0	5.7	46.8	47.1	0.0	0.3	100.0	186
Mondol Kiri/Rattanak Kiri	39.0	54.9	2.0	0.0	4.1	100.0	18.8	29.9	46.5	0.0	4.9	100.0	47
Education													
No schooling	67.8	30.0	1.8	0.4	0.0	100.0	13.7	47.9	37.0	1.3	0.1	100.0	1,236
Primary	66.8	31.9	1.1	0.1	0.1	100.0	14.1	50.8	34.3	0.5	0.2	100.0	4,141
Secondary and higher	69.2	29.0	1.1	0.5	0.1	100.0	16.8	47.4	34.3	0.7	0.8	100.0	2,073
Wealth quintile													
Lowest	69.7	28.9	1.2	0.0	0.2	100.0	9.9	57.7	31.4	0.8	0.3	100.0	1,312
Second	66.4	32.6	0.9	0.1	0.0	100.0	10.8	56.4	31.8	0.6	0.3	100.0	1,350
Middle	63.6	35.2	0.6	0.5	0.1	100.0	13.5	49.8	35.7	0.5	0.5	100.0	1,435
Fourth	65.8	31.6	2.0	0.4	0.1	100.0	16.8	46.7	35.1	0.9	0.5	100.0	1,592
Highest	72.0	26.5	1.3	0.2	0.0	100.0	20.7	39.9	38.4	0.7	0.3	100.0	1,761
Total	67.6	30.8	1.2	0.2	0.1	100.0	14.8	49.4	34.7	0.7	0.4	100.0	7,451

Table 16.2.2 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, Cambodia 2010

Background characteristic	Men							Women						
	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number
Age														
15-19	*	*	*	*	*	100.0	15	51.6	42.7	3.5	2.1	0.0	100.0	378
20-24	28.3	65.5	6.2	0.0	0.0	100.0	334	54.2	41.1	3.9	0.8	0.0	100.0	1,659
25-29	26.8	70.2	3.0	0.0	0.0	100.0	823	55.0	40.9	3.8	0.3	0.0	100.0	2,558
30-34	27.0	69.3	3.6	0.0	0.1	100.0	742	57.3	38.6	4.1	0.0	0.1	100.0	1,803
35-39	27.1	71.3	1.6	0.0	0.0	100.0	611	54.0	41.9	3.9	0.1	0.1	100.0	1,735
40-44	26.7	70.7	2.7	0.0	0.0	100.0	734	56.4	39.1	4.4	0.1	0.0	100.0	1,853
45-49	26.4	71.6	2.0	0.0	0.0	100.0	582	55.1	39.2	5.5	0.0	0.2	100.0	1,545
Number of living children														
0	28.3	66.7	4.9	0.0	0.0	100.0	305	52.6	40.2	5.7	1.5	0.0	100.0	841
1-2	25.0	72.1	2.9	0.0	0.0	100.0	1,846	56.7	39.1	3.9	0.3	0.0	100.0	5,367
3-4	27.5	70.0	2.5	0.0	0.0	100.0	1,190	53.8	41.6	4.4	0.0	0.2	100.0	3,609
5+	32.5	64.3	3.2	0.0	0.0	100.0	500	54.8	41.1	4.0	0.1	0.0	100.0	1,715
Residence														
Urban	12.2	84.2	3.5	0.0	0.1	100.0	815	63.5	32.6	3.6	0.2	0.0	100.0	2,056
Rural	31.0	66.2	2.8	0.0	0.0	100.0	3,027	53.4	41.9	4.3	0.3	0.1	100.0	9,475
Province														
Banteay Mean Chey	25.3	69.3	5.1	0.0	0.3	100.0	142	48.9	49.0	2.1	0.0	0.0	100.0	454
Kampong Cham	34.7	63.8	1.5	0.0	0.0	100.0	437	49.7	46.5	2.9	0.6	0.3	100.0	1,407
Kampong Chhnang	0.9	98.9	0.2	0.0	0.0	100.0	119	17.6	68.5	14.0	0.0	0.0	100.0	443
Kampong Speu	30.9	67.9	1.2	0.0	0.0	100.0	290	34.2	63.6	1.6	0.4	0.2	100.0	697
Kampong Thom	73.1	22.3	4.6	0.0	0.0	100.0	125	67.5	30.3	1.7	0.5	0.0	100.0	565
Kandal	0.0	98.8	1.2	0.0	0.0	100.0	449	60.5	37.5	2.1	0.0	0.0	100.0	1,066
Kratie	92.9	4.1	3.0	0.0	0.0	100.0	102	42.9	56.0	0.9	0.2	0.0	100.0	286
Phnom Penh	6.4	89.6	4.1	0.0	0.0	100.0	452	73.2	23.1	3.1	0.5	0.0	100.0	1,097
Prey Veng	5.7	93.7	0.6	0.0	0.0	100.0	411	50.5	47.9	1.6	0.0	0.0	100.0	959
Pursat	36.4	51.4	12.2	0.0	0.0	100.0	156	41.6	57.9	0.6	0.0	0.0	100.0	324
Siem Reap	9.9	88.1	2.0	0.0	0.0	100.0	226	63.4	33.2	2.3	1.1	0.0	100.0	749
Svay Rieng	45.2	48.9	5.7	0.2	0.0	100.0	67	30.0	38.7	31.1	0.0	0.2	100.0	501
Takeo	64.7	27.7	7.6	0.0	0.0	100.0	250	59.2	39.8	1.0	0.0	0.0	100.0	775
Otdar Mean Chey	63.4	21.3	15.3	0.0	0.0	100.0	67	74.4	23.6	1.8	0.0	0.2	100.0	153
Battambang/Pailin	1.3	97.4	1.4	0.0	0.0	100.0	138	76.4	18.9	4.8	0.0	0.0	100.0	772
Kampot/Kep	78.2	21.8	0.0	0.0	0.0	100.0	164	79.8	15.8	4.2	0.2	0.0	100.0	562
Preah Sihanouk/Koh Kong	0.3	99.0	0.7	0.0	0.0	100.0	109	34.7	58.5	6.3	0.4	0.2	100.0	264
Preah Vihear/Steung Treng	70.8	28.9	0.3	0.0	0.0	100.0	106	67.6	30.3	1.9	0.2	0.0	100.0	261
Mondol Kiri/Rattanak Kiri	4.0	88.0	8.0	0.0	0.0	100.0	32	27.1	69.5	3.2	0.3	0.0	100.0	197
Education														
No schooling	36.6	60.9	2.6	0.0	0.0	100.0	380	53.3	40.2	6.0	0.3	0.1	100.0	2,190
Primary	31.0	65.6	3.4	0.0	0.0	100.0	1,703	54.6	41.3	3.9	0.2	0.1	100.0	6,448
Secondary and higher	21.0	76.3	2.7	0.0	0.0	100.0	1,758	58.0	38.1	3.4	0.5	0.0	100.0	2,894
Wealth quintile														
Lowest	36.7	60.4	2.9	0.0	0.0	100.0	706	53.9	41.0	5.0	0.1	0.0	100.0	2,278
Second	34.6	62.3	3.2	0.0	0.0	100.0	688	54.7	40.9	4.3	0.1	0.1	100.0	2,327
Middle	29.1	68.3	2.6	0.0	0.0	100.0	702	52.0	43.4	4.0	0.6	0.1	100.0	2,279
Fourth	25.8	71.6	2.5	0.0	0.0	100.0	812	53.8	42.1	3.6	0.3	0.1	100.0	2,297
Highest	13.5	82.9	3.6	0.0	0.0	100.0	934	61.5	34.2	4.0	0.4	0.0	100.0	2,349
Total	27.0	70.0	3.0	0.0	0.0	100.0	3,841	55.2	40.3	4.2	0.3	0.1	100.0	11,531

Note: Total includes cases with information missing on education that are not shown separately. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Currently married men age 15-49 who receive cash earnings and currently married women age 15-49 whose husbands receive cash earnings were asked who decides how the husband's cash earnings are spent. Table 16.2.2 shows that 27 percent of men and 55 percent of women say that the wife mainly decides how the husband's earnings are used. Seventy percent of men and 40 percent of women say the husband and wife decide jointly how the man's cash earnings are used. Younger men (20-24 years old) are more likely to say husband have control over their earnings than older men. Eighty-four percent of urban men and 33 percent of urban women say that decisions about how the husband's cash earnings are spent are made jointly by the husband and wife.

Men in Otdar Mean Chey and Pursat are more likely to make decisions themselves on how to use their cash earnings than their counterparts in other regions. More women in Svay Rieng (31 percent) and Kampong Chhnang (14 percent) whose husbands receive cash earnings report that their husbands usually have sole authority over the use of their earnings than in other provinces. Better educated men and those in the higher wealth quintiles are more likely to report joint decisions about the use of the husband's cash earnings. These associations are not observed among women.

Table 16.3 shows the percent distribution of currently married women age 15-49 who received cash earnings in the past 12 months by the person who decides how their cash earnings are used and the percent distribution of currently married women age 15-49 whose husbands received cash earnings in the past 12 months by the person who decides how the husband's cash earnings are used, according to the relative magnitude of the earnings of the woman and her husband.

Women who earn more than their husbands are more likely to decide how their cash earnings are used (78 percent) than women whose cash earnings are the same as their husband's (61 percent). Women who say they earn about the same amount as their husband are more likely to make joint decisions with their husband about how their cash earnings and those of their husbands are used.

Table 16.3 Women's control over their own earnings and over those of their husband

Percent distributions of currently married women age 15-49 with cash earnings in the past 12 months by person who decides how the woman'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, Cambodia 2010

Women's earnings relative to husband's earnings	Person who decides how the wife's cash earnings are used:							Person who decides how husband's cash earnings are used:						
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women
More than husband/ partner	77.7	20.5	1.5	0.3	0.0	100.0	1,101	67.4	29.5	2.9	0.2	0.0	100.0	1,096
Less than husband/ partner	69.5	28.8	1.5	0.2	0.0	100.0	3,680	55.9	41.0	3.0	0.1	0.0	100.0	3,678
Same as husband/ partner	60.6	38.5	0.7	0.2	0.0	100.0	2,589	49.6	48.7	1.5	0.2	0.1	100.0	2,588
Husband/partner has no cash earnings/did not work	78.7	17.7	3.6	0.0	0.0	100.0	53	na	na	na	na	na	na	na
Woman has no cash earnings	na	na	na	na	na	na	na	48.8	41.8	8.9	0.3	0.1	100.0	2,456
Woman did not work in past 12 months	na	na	na	na	na	na	na	64.0	30.9	4.4	0.5	0.2	100.0	1,689
Don't know/missing	55.8	17.2	0.0	5.0	22.0	100.0	28	40.7	23.9	28.5	5.6	1.3	100.0	25
Total[1]	67.6	30.8	1.2	0.2	0.1	100.0	7,451	55.2	40.3	4.2	0.3	0.1	100.0	11,531

[1] Excludes cases where a woman or her husband/partner has no earnings and includes cases where a woman does not know whether she earned more or less than her husband/partner
na = Not applicable

16.3 WOMEN'S PARTICIPATION IN HOUSEHOLD DECISION-MAKING

The ability to make decisions about their own life is important to women's empowerment. In addition to information on women's control over cash earnings, the 2010 CDHS collected information from both women and men on other measures of women's empowerment. Respondents were asked about women's role in household decision-making and acceptance of wife beating. Such information provides insight into women's control over their environment and their attitudes towards gender roles, both of which are relevant to understanding women's ability to make independent decisions about their own health care and that of their children.

To assess women's decision-making autonomy, information was collected on their participation in three types of household decisions: their own health care, making large household purchases, and visiting their family or relatives. Having a final say in the decision-making process represents the highest degree of autonomy. Women are considered to participate in a decision if they usually make that decision alone or jointly with their husband. Table 16.4 shows the percent distribution of currently married women age 15-49 by the person in the household who usually makes decisions concerning these matters.

Cambodian women are usually involved in all three specific decisions, although the extent of their involvement depends on the issue being decided. About 45 percent of women say they alone make decisions about their own health care. However, decisions about major household purchases and visits to the wife's family or relatives are usually made jointly by the husband and wife.

Table 16.4 Women's participation in decision-making

Percent distribution of currently married women age 15-49 by person who usually makes decisions about three kinds of issues, Cambodia 2010

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	45.1	45.1	9.4	0.2	0.1	0.1	100.0	11,626
Major household purchases	17.6	76.5	4.8	0.7	0.3	0.1	100.0	11,626
Visits to her family or relatives	26.5	68.9	4.4	0.1	0.1	0.1	100.0	11,626

Table 16.5 shows the percentage of married women who participate in the three decisions specified for female respondents, according to background characteristics. As noted above, a woman is considered to participate in a decision if she says she usually makes the decision alone or jointly with her husband.

Ninety percent of currently married women age 15-49 say they make decisions about their own health care either by themselves or jointly with their husbands, and 94 percent of women say they participate in decisions about major household purchases. Ninety-five percent say they participate in decisions about visits to their family or relatives. Overall, 86 percent of currently married women participate in all three decisions, and less than 2 percent do not participate in any of the three decisions.

Younger women are less likely than older women to participate in all three kinds of decisions. In addition, women employed for cash are more likely to participate in all three decisions (88 percent) than women who are employed not for cash (81 percent). Women with five or more children are more likely to participate in all three decisions (87 percent) than women with no children (81 percent).

Urban women are more likely than rural women to participate in each of the three decisions. Women in Phnom Penh, Pursat, and Siem Reap are most likely to participate in all three decisions, whereas women in Svay Rieng are least likely to do so.

Women with a secondary education or higher and women in the highest wealth quintile are slightly more likely to participate in making each specific decision, as well as in making all three decisions, than women with a primary school education or no schooling and those in poor households.

Table 16.5 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Cambodia 2010

Background characteristic	Own health care	Making major household purchases	Visits to her family or relatives	Percentage who participate in all three decisions	Percentage who participate in none of the three decisions	Number of women
Age						
15-19	79.7	87.6	92.0	71.7	3.1	382
20-24	88.4	91.8	93.6	81.7	2.2	1,679
25-29	90.5	94.0	95.6	85.2	1.5	2,572
30-34	92.1	95.2	95.3	87.2	1.5	1,811
35-39	91.4	94.8	96.4	87.9	2.0	1,747
40-44	90.2	95.1	96.6	87.5	1.7	1,861
45-49	90.8	94.7	95.2	87.3	2.0	1,574
Employment (past 12 months)						
Not employed	88.8	92.9	95.0	83.4	1.5	1,691
Employed for cash	91.7	95.9	96.8	87.6	0.6	7,451
Employed not for cash	86.7	89.4	91.3	81.3	5.6	2,479
Number of living children						
0	87.0	90.9	93.6	81.0	2.6	860
1-2	90.4	93.8	95.3	85.2	1.7	5,404
3-4	90.2	94.9	95.3	86.6	2.1	3,632
5+	91.3	94.7	96.7	87.2	1.1	1,731
Residence						
Urban	95.3	96.7	97.7	92.1	0.4	2,069
Rural	89.1	93.5	94.9	84.2	2.1	9,557
Province						
Banteay Mean Chey	91.3	94.1	95.9	86.2	0.8	454
Kampong Cham	79.4	90.6	93.8	73.5	2.1	1,411
Kampong Chhnang	93.6	96.7	99.0	91.0	0.0	450
Kampong Speu	94.2	98.2	99.5	93.1	0.2	698
Kampong Thom	95.1	93.6	92.1	85.4	0.6	569
Kandal	91.6	96.7	98.8	89.0	0.0	1,109
Kratie	98.1	98.1	80.1	78.0	0.2	287
Phnom Penh	99.3	98.6	98.8	97.1	0.1	1,099
Prey Veng	95.0	94.9	98.5	90.4	0.5	961
Pursat	99.7	98.8	99.4	98.4	0.3	328
Siem Reap	98.4	97.9	98.7	97.0	0.5	754
Svay Rieng	50.8	65.1	66.1	46.0	29.2	505
Takeo	97.4	95.8	97.6	92.6	0.3	778
Otdar Mean Chey	95.7	97.5	99.1	93.8	0.4	154
Battambang/Pailin	76.3	91.8	95.7	71.2	0.6	776
Kampot/Kep	97.3	91.4	94.0	85.4	0.2	568
Preah Sihanouk/Koh Kong	97.8	98.1	98.2	95.9	0.5	265
Preah Vihear/Steung Treng	94.7	97.6	98.7	93.3	0.7	261
Mondol Kiri/Rattanak Kiri	75.0	97.9	98.2	73.7	0.3	197
Education						
No schooling	87.5	92.3	94.2	83.3	3.4	2,221
Primary	90.2	94.2	95.6	85.6	1.6	6,489
Secondary and higher	92.2	95.2	95.8	87.5	1.1	2,917
Wealth quintile						
Lowest	89.0	93.8	93.9	83.5	2.3	2,299
Second	89.3	92.4	94.4	83.8	2.6	2,347
Middle	88.4	92.8	94.9	83.1	2.0	2,296
Fourth	90.0	94.7	96.1	86.3	1.6	2,319
Highest	94.4	96.7	97.4	91.3	0.6	2,364
Total	90.2	94.1	95.4	85.6	1.8	11,626

Note: Total includes cases with information missing on employment and education that are not shown separately.

16.4 ATTITUDES TOWARDS WIFE BEATING

Another measure of women's empowerment derives from the idea that gender equity is essential to empowerment. Attitudes that view the beating of wives by husbands as justified are indicative of women's lower status. They signify acceptance of norms that give men the right to use force against women, which is a violation of women's human rights. Violence against women has serious consequences for their mental and physical well-being, including their reproductive and sexual health (Heise et al., 1999).

The 2010 CDHS gathered information on women's and men's attitudes toward wife beating, a proxy for women's status. Respondents who believe that a husband is justified in hitting or beating his wife for any of the specified reasons may believe that women are low in status both absolutely and relative to men. Such a perception could act as a barrier for women in accessing health care for themselves and their children; moreover, it could affect women's attitudes towards contraceptive use and affect their general well-being. Respondents were asked whether a husband is justified in beating his wife under a series of circumstances: wife burns the food, wife argues with him, wife goes out without telling him, wife neglects the children, wife refuses to have sex with him, and wife asks him to use a condom. Table 16.6.1 summarizes women's attitudes towards wife beating in these six specific circumstances. Table 16.6.2 summarizes men's attitudes.

Nearly half of women (46 percent) believe that a husband is justified in beating his wife for at least one of the six specified reasons. Few women (8 percent) believe that wife beating is justified if the wife asks her husband to use a condom. The proportions of women who believe that wife beating is justified if the wife argues with her husband, goes out without telling him, or neglects the children are 23 percent, 30 percent, and 39 percent, respectively. Thirteen percent and 14 percent of women, respectively, say wife beating is justified if the wife burns the food or refuses to have sexual intercourse with her husband.

Overall, women in rural areas, those with no schooling or a primary school education, and those in the lower wealth quintiles are more likely than other women to agree with at least one reason for wife beating. In addition, women who are employed but not paid in cash and those with five or more children are more likely than other women to agree with at least one of the reasons for wife beating. Women living in Svay Rieng and Kampot/Kep (87 percent and 80 percent, respectively) are most likely to agree with at least one specified reason for wife beating.

Urban women, those living in Phnom Penh, those with a secondary education or higher, and those in the highest wealth quintile are least likely to agree with at least one specified reason that justifies wife beating.

Table 16.6.1 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, Cambodia 2010

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Asks him to use a condom	Percentage who agree with at least one specified reason	Number
Age								
15-19	11.0	20.1	23.7	35.4	9.7	6.4	41.9	3,734
20-24	9.9	19.5	25.7	36.4	9.4	6.0	42.7	3,155
25-29	11.5	21.4	28.4	37.6	11.9	7.3	43.7	3,262
30-34	13.4	23.0	33.0	42.8	13.8	7.3	47.9	2,167
35-39	17.2	27.6	34.7	42.2	18.5	10.8	50.0	2,044
40-44	18.3	29.4	34.7	42.5	19.7	11.3	50.2	2,300
45-49	16.1	27.7	35.6	41.9	19.2	12.3	49.1	2,093
Employment (past 12 months)								
Not employed	9.5	17.3	20.9	33.5	9.2	5.3	39.3	3,609
Employed for cash	13.9	23.2	29.9	38.1	14.6	9.1	44.7	11,206
Employed not for cash	15.3	29.5	37.7	47.3	15.4	8.9	54.5	3,929
Missing	5.5	5.5	25.5	28.0	5.5	6.7	29.2	10
Number of living children								
0	10.4	18.1	22.4	33.6	9.3	6.1	39.5	6,810
1-2	12.7	23.5	31.0	39.3	13.3	7.5	46.0	6,107
3-4	16.2	27.8	35.1	43.9	18.4	10.7	50.5	3,965
5+	19.7	32.8	41.6	48.6	21.5	14.0	57.2	1,871
Marital status								
Never married	9.8	17.1	21.1	32.7	8.6	5.6	38.2	5,783
Married or living together	14.7	26.1	33.9	42.2	16.0	9.5	49.2	11,626
Divorced/separated/widowed	16.8	26.3	32.5	40.5	16.7	9.8	47.9	1,345
Residence								
Urban	5.8	10.8	13.8	23.6	6.7	3.1	26.8	3,936
Rural	15.3	26.7	34.1	43.3	15.6	9.7	50.7	14,818
Province								
Banteay Mean Chey	35.9	44.3	54.8	68.2	34.1	9.5	76.3	719
Kampong Cham	18.8	29.2	31.2	36.8	22.3	14.5	44.4	2,111
Kampong Chhnang	9.0	15.5	19.2	23.8	5.3	3.7	32.5	739
Kampong Speu	4.6	6.8	16.2	16.4	2.5	1.0	23.9	1,060
Kampong Thom	9.6	23.8	30.6	38.0	18.2	10.0	43.4	935
Kandal	9.1	17.4	17.0	30.7	10.1	5.1	38.0	1,920
Kratie	4.9	21.2	16.1	24.4	2.7	2.4	27.7	438
Phnom Penh	1.6	4.0	6.3	14.8	3.5	1.9	16.0	2,183
Prey Veng	1.5	15.3	20.3	20.3	3.2	2.7	24.9	1,341
Pursat	18.6	15.6	37.4	47.2	24.3	26.8	64.3	534
Siem Reap	9.9	33.7	59.6	62.5	10.1	5.4	66.1	1,233
Svay Rieng	24.5	61.4	74.6	81.2	26.2	18.6	86.9	753
Takeo	21.5	25.2	32.8	50.6	15.2	9.4	59.3	1,175
Otdar Mean Chey	39.2	46.3	50.4	61.1	41.7	32.6	65.4	252
Battambang/Pailin	15.1	27.6	25.7	46.6	13.5	6.5	58.0	1,320
Kampot/Kep	28.5	39.5	53.8	70.4	25.3	14.8	79.8	891
Preah Sihanouk/Koh Kong	15.2	17.3	17.4	41.8	8.5	4.0	46.6	439
Preah Vihear/Steung Treng	18.5	24.6	37.4	40.8	22.1	16.2	45.4	430
Mondol Kiri/Rattanak Kiri	9.9	16.7	24.1	33.0	9.6	7.1	36.5	281
Education								
No schooling	19.0	31.4	39.0	47.4	21.5	13.1	55.2	2,973
Primary	16.0	27.2	35.1	43.9	16.4	10.2	51.2	9,265
Secondary and higher	6.9	14.2	18.1	28.5	6.4	3.5	33.6	6,516
Wealth quintile								
Lowest	19.3	32.8	40.6	48.5	19.7	13.3	56.6	3,388
Second	16.7	28.5	36.8	45.5	16.4	10.1	53.4	3,516
Middle	15.3	26.0	34.3	42.9	15.0	9.6	50.4	3,594
Fourth	11.5	22.3	27.8	39.3	12.8	6.9	46.0	3,827
Highest	6.0	10.9	14.1	23.7	6.8	3.2	27.3	4,428
Total	13.3	23.4	29.8	39.1	13.7	8.3	45.7	18,754

Table 16.6.2 shows that men are less likely than women to believe that a husband is justified in beating his wife for any of the specified reasons (22 percent versus 46 percent). Only 17 percent of men age 15-49 believe that a husband is justified in beating his wife if she neglects the children, as compared with 39 percent of women. Another 5 percent of men agree that wife beating is justified if the wife refuses to have sex her husband, and only 4 percent believe that a husband is justified in beating his wife if she burns the food. Eleven percent and 10 percent of men, respectively, say that the husband is justified in beating his wife if she argues with him or goes out without telling him.

There are differences among men in the percentage who believe wife beating is justified for any of the specified reasons. Formerly married men, those with five or more children, men with no schooling, men in rural areas, and men in the lowest household wealth quintile are more likely to agree with at least one of the reasons for wife beating than other men. Men who reside in Kandal and Banteay Mean Chey are most likely to agree with at least one of the reasons for wife beating.

Table 16.6.2 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, Cambodia 2010

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Asks him to use a condom	Percentage who agree with at least one specified reason	Number
Age								
15-19	4.4	11.4	10.2	19.2	6.2	3.5	25.2	1,863
20-24	3.1	7.5	6.8	14.7	4.0	2.9	19.1	1,402
25-29	3.4	9.6	8.8	14.4	2.9	2.2	19.3	1,377
30-34	2.9	9.6	8.3	15.1	3.3	2.6	21.3	1,014
35-39	2.8	12.5	11.4	19.7	7.1	4.2	25.1	835
40-44	5.0	13.4	12.0	18.7	7.3	2.0	25.6	956
45-49	5.3	10.7	11.4	15.5	5.3	2.5	21.4	792
Employment (past 12 months)								
Not employed	2.9	7.1	7.5	14.7	4.1	2.2	18.0	1,077
Employed for cash	4.3	11.3	10.2	16.9	4.7	3.3	23.1	5,492
Employed not for cash	2.7	10.1	8.9	17.5	6.8	2.0	22.8	1,667
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Number of living children								
0	3.8	9.3	8.7	16.0	5.0	3.0	21.5	3,656
1-2	3.0	10.0	9.2	15.1	3.6	2.8	19.9	2,338
3-4	4.3	12.2	11.8	19.0	5.6	2.5	24.7	1,539
5+	5.8	14.7	10.9	21.2	8.8	3.2	29.9	706
Marital status								
Never married	3.9	9.7	9.1	16.8	5.1	3.1	22.5	3,181
Married or living together	3.6	10.8	9.8	16.5	4.9	2.7	22.1	4,852
Divorced/separated/widowed	6.8	15.6	13.1	21.4	7.4	4.1	26.1	206
Residence								
Urban	3.0	6.6	6.7	10.2	2.6	1.6	12.1	1,697
Rural	4.0	11.5	10.3	18.5	5.7	3.2	25.0	6,542
Province								
Banteay Mean Chey	13.1	24.4	27.7	46.5	25.6	11.8	56.1	275
Kampong Cham	3.8	8.6	2.0	24.8	7.6	3.1	28.6	990
Kampong Chhnang	0.7	5.1	4.4	16.8	0.3	0.1	20.2	341
Kampong Speu	0.6	7.0	10.1	19.3	2.1	1.2	23.9	468
Kampong Thom	0.6	13.2	12.2	13.8	4.0	1.3	24.9	390
Kandal	21.3	39.1	37.5	49.2	14.7	10.2	61.1	796
Kratie	10.3	34.5	29.6	43.3	17.7	3.9	50.2	191
Phnom Penh	0.2	0.3	0.2	0.3	0.0	0.1	0.4	945
Prey Veng	0.0	4.9	1.8	2.4	0.6	0.0	7.9	598
Pursat	3.4	10.5	13.5	17.9	1.0	15.8	41.0	256
Siem Reap	0.3	4.9	2.1	4.0	0.7	0.0	7.7	517
Svay Rieng	3.3	19.0	23.4	27.9	12.2	1.8	35.4	331
Takeo	0.8	4.5	5.7	14.4	3.2	1.2	19.2	525
Otdar Mean Chey	5.1	16.9	21.8	28.9	13.1	3.9	34.8	122
Battambang/Pailin	0.6	1.2	1.4	1.4	0.6	0.3	3.5	603
Kampot/Kep	0.4	0.6	1.9	2.0	0.0	0.4	3.2	362
Preah Sihanouk/Koh Kong	3.1	5.1	6.7	8.0	1.5	0.5	8.7	203
Preah Vihear/Steung Treng	0.3	2.5	0.0	1.9	1.3	5.1	8.3	193
Mondol Kiri/Rattanak Kiri	0.0	13.4	5.0	7.8	0.4	0.5	16.4	132
Education								
No schooling	3.7	14.9	10.8	19.7	6.8	4.6	27.5	641
Primary	4.7	11.9	10.4	18.8	5.9	3.5	25.9	3,394
Secondary and higher	3.1	8.7	8.7	14.7	4.1	2.1	18.8	4,205
Wealth quintile								
Lowest	5.0	14.6	10.4	22.4	7.3	4.4	30.2	1,454
Second	4.1	11.2	9.3	17.7	4.8	3.7	25.7	1,544
Middle	3.5	10.0	10.4	16.4	5.4	2.2	22.4	1,637
Fourth	4.7	12.5	13.7	20.9	6.3	3.3	26.1	1,696
Highest	2.2	5.4	5.0	8.3	2.1	1.3	10.4	1,908
Total	3.8	10.5	9.6	16.8	5.1	2.9	22.4	8,239

16.5 WOMEN'S EMPOWERMENT INDICATORS

The two sets of empowerment indicators, namely women's participation in making household decisions and their attitude towards wife beating, can be summarized into two separate indices. These two indices are based on women's responses.

The first index is the number of decisions in which women participate alone or jointly with their husband (see Table 16.5 for the list of decisions). This index ranges in value from 0 to 3 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 lives and environments.

The second index is the number of reasons for which the respondent believes that a husband is justified in beating his wife (see Table 16.6.1 for the list of reasons). This index ranges in value from 0 to 6. A lower score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem and higher status.

Table 16.7 presents these two indicators of women's empowerment and how they relate to each other. It shows the percentage of married women age 15-49 who participate in all decision-making and the percentage of women who disagree with all of the specified reasons for justifying wife beating, by the value on each of the indicators. In general, the expectation is that women who participate in making household decisions are more likely to have gender-egalitarian beliefs.

The findings on women's empowerment indicate that women who participate in all three specified household decisions are more likely to disagree with all of the reasons for justifying wife beating (53 percent) than women who participate in fewer decisions. Similarly, women who do not support wife beating for any reason are most likely to participate in all of the decision-making in the household (90 percent).

Table 16.7 Indicators of women's empowerment

Percentage of women age 15-49 who participate in all decision-making, percentage who disagree with all reasons for justifying wife beating, by value on each of the indicators of women's empowerment, Cambodia 2010

	Currently married women			
Empowerment indicator	Percentage who participate in all decision-making[1]	Number of women	Percentage who disagree with all reasons justifying wife beating	Number of women
Number of decisions in which women participate[1]				
0	na	na	18.0	211
1-2	na	na	38.6	1,461
All 3	na	na	53.3	9,954
Number of reasons for which wife beating is justified[2]				
0	89.8	5,906	na	na
1-2	85.8	2,691	na	na
3-4	78.1	2,037	na	na
5-6	75.7	994	na	na

[1] Restricted to currently married women. See Table 16.5 for the list of decisions.
[2] See Table 16.6.1 for the list of reasons.

16.6 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 do

not depend on her husband's cooperation. Table 16.8 shows the distribution of currently married women by contraceptive method used, according to the two empowerment indicators.

The findings indicate that there is a positive relationship between use of contraception and participation in household decision-making. For example, current use of any contraceptive method increases from 43 percent among women who do not participate in any of the household decisions to 51 percent among women who participate in all three household decisions. Women who believe that wife beating is justified for five or six specified reasons are slightly less likely to use any method of contraception than other women.

Table 16.8 Current use of contraception by women's status

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Cambodia 2010

			Modern methods							
Empowerment indicator	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Tempo-rary modern female methods[1]	Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[2]										
0	42.9	31.7	1.7	0.0	28.9	1.1	11.2	57.1	100.0	211
1-2	48.2	34.5	1.8	0.0	30.9	1.9	13.6	51.8	100.0	1,461
All 3	51.0	35.0	2.5	0.1	29.6	2.9	16.1	49.0	100.0	9,954
Number of reasons for which wife beating is justified[3]										
0	50.8	33.3	2.2	0.0	27.7	3.4	17.5	49.2	100.0	5,906
1-2	50.6	35.1	2.5	0.0	30.5	1.9	15.6	49.4	100.0	2,691
3-4	50.9	38.4	3.0	0.1	32.9	2.4	12.5	49.1	100.0	2,037
5-6	47.7	36.2	1.8	0.1	32.7	1.5	11.5	52.3	100.0	994
Total	50.5	34.9	2.4	0.0	29.7	2.7	15.7	49.5	100.0	11,626

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhea method
[2] See Table 16.5 for the list of decisions.
[3] See Table 16.6.1 for the list of reasons.

16.7 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

The ability of women to make household decisions has important implications for their fertility preferences and the practice of family planning. Increases in women's status and empowerment are recognized as important in efforts to reduce fertility.

Table 16.9 shows how women's ideal family size and unmet need for family planning are related to the two indicators of women's status. The findings indicate that there is little variation in ideal family size and the empowerment indicators. With respect to the relationship between unmet need and women's empowerment indicators, the findings show that unmet need is higher among women who participate in at least one of the household decisions than among women who do not participate in any. Unmet need is also higher among women who believe that wife beating is justified for 1-2 reasons (17 percent), 3-4 reasons (18 percent), and 5-6 reasons (19 percent) than among women who think that there is no reason for which wife beating is justified.

Table 16.9 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Cambodia 2010

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	3.1	209	6.5	5.4	11.9	211
1-2	3.3	1,456	7.3	10.4	17.8	1,461
All 3	3.4	9,872	5.7	10.7	16.5	9,954
Number of reasons for which wife beating is justified[4]						
0	3.1	9,969	5.9	9.5	15.4	5,906
1-2	3.2	4,198	6.5	10.7	17.3	2,691
3-4	3.2	2,914	5.0	12.9	17.9	2,037
5-6	3.3	1,347	6.4	12.3	18.7	994
Total	3.1	18,428	6.0	10.6	16.6	11,626

[1] Mean excludes respondents who gave non-numeric responses.
[2] See Table 9.3 for the definition of unmet need for family planning.
[3] Restricted to currently married women. See Table 16.5 for the list of decisions.
[4] See Table 16.6.1 for the list of reasons.

16.8 Reproductive Health Care and Women's Empowerment Status

Table 16.10 examines whether women's use of antenatal, delivery, and postnatal care services from health professionals varies by level of empowerment as measured by the 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 is likely to enhance women's ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood.

Table 16.10 shows that mothers who agree with none of the reasons justifying wife beating are more likely to have received antenatal care from health personnel (91 percent), assistance at delivery (76 percent), and postnatal care soon after delivery (67 percent) than women who believe that wife beating is justified for one or more reasons.

Table 16.10 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 their most recent birth, by indicators of women's empowerment, Cambodia 2010

Empowerment indicator	Received antenatal care from health personnel	Received delivery assistance from health personnel	Received postnatal care from health personnel within the first two days since delivery[1]	Number of women with a child born in the past five years
Number of decisions in which women participate[2]				
0	94.0	83.7	53.4	92
1-2	86.4	69.7	56.9	824
All 3	89.6	74.3	63.8	5,254
Number of reasons for which wife beating is justified[3]				
0	91.1	76.4	66.5	3,263
1-2	88.3	74.5	63.4	1,540
3-4	88.1	70.4	57.0	1,159
5-6	81.1	64.5	51.4	510
Total	89.1	73.9	62.9	6,472

Note: "Health personnel" includes doctor, nurse, midwife, and auxiliary nurse or auxiliary midwife.
[1] Includes deliveries in a health facility and not in a health facility
[2] Restricted to currently married women. See Table 16.5 for the list of decisions.
[3] See Table 16.6.1 for the list of reasons.

Use of reproductive health services is not clearly related to the number of decisions in which women participate, with the exception that women who participate in all three decisions are more likely to have received postnatal care soon after delivery (64 percent).

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SAMPLE IMPLEMENTATION

Appendix A

A.1 INTRODUCTION

The 2010 Cambodia Demographic and Health Survey (2010 CDHS is the third of its kind and follows similar surveys conducted in 2000 and 2005. The 2010 CDHS calls for a nationally representative sample of 16,344 households. All women age 15-49 who are usual members of a sampled household or who sleep in the sampled household the night before the survey, are eligible. The survey will result in approximately 17,954 completed interviews. Similar to previous surveys, the 2010 CDHS is designed to provide information on fertility and childhood mortality, family planning, maternal and child health, and knowledge and behavior regarding AIDS and other sexually transmitted infections (STIs). The survey estimates will be reported for 19 study domains, of which 14 are individual provinces (Banteay Meanchey, Kampong Cham, Kampong Chhnang, Kampong Speu, Kampong Thom, Kandal, Kratie, Phnom Penh, Prey Veng, Pursat, Siemreap, Svay Rieng, Takeo, and Oddar Meanchey) and 5 are groups of provinces:

Group 1: Battambang and Pailin
Group 2: Kampot and Kep
Group 3: Koh Kong and Preah Sihanouk
Group 4: Preah Vihear and Stung Treng
Group 5: Mondul Kiri and Ratanak Kiri

In addition, in a subsample of one of every two households selected for the women's survey, a men's survey will also be conducted. All men age 15-49 in the selected households are eligible for an interview during which they provide information on family planning and knowledge and behavior regarding AIDS and other sexually transmitted infections (STIs).

A.2 SAMPLING FRAME

The sampling frame used for the 2010 CDHS is the complete list of all enumeration areas (EAs) created for the Cambodian General Population Census 2008 (GPC 2008) and provided by the National Institute of Statistics (NIS). The list consists of 28,764 EAs that encompass the entire country. An EA is either a village or a part of a large village; it carries the information about its administrative belonging and its locality, number of residential households, and type of residence (urban or rural). A cartographic map delimiting each EA's boundaries was also created at the time of the GPC 2008. Among the EAs, 4,301 are urban residences, and 24,373 are rural residences. The average size of the EAs (e.g., the number of residential households residing in the EA) is 118 households in urban areas and 95 households in rural areas, with an overall average of 98 households per EA. Table A.1 below shows the distribution of the households and the number of EAs by province and by type of residence. In Cambodia, 18 percent of the residential households are in urban areas, and 82 percent are in rural areas. The largest province represents 13.1 percent of the total households in the country; the smallest one represents just 0.3 percent of the total households in the country. Because of the large number of provinces and the disparity in province size, it was decided to regroup the small provinces to form survey domains of more homogeneous size. In total, 19 domains were created, among them, 14 domains were single province domains and 5 were regrouped province domains. Table A.2 below shows the composition of domains and the percent distribution of households and number of EAs by domain and by type of residence.

Table A.1 Percentage distribution of households and number of EAs by province and by type of residence (Sampling frame, Cambodia GPC 2008)

Province code	Province name	Urban		Rural		Total	
		Households	EA	Households	EA	Households	EA
1	Banteay Meanchey	25.7	339	74.3	1,145	5.1	1,484
2	Battambang	17.0	333	83.0	1,743	7.4	2,076
3	Kampong Cham	6.8	231	93.2	3,451	13.1	3,682
4	Kampong Chhnang	8.2	72	91.8	945	3.6	1,017
5	Kampong Speu	7.1	112	92.9	1,636	5.3	1,748
6	Kampong Thom	5.0	63	95.0	1,347	4.8	1,410
7	Kampot	7.6	86	92.4	1,187	4.6	1,273
8	Kandal	14.2	325	85.8	2,304	9.1	2,629
9	Koh Kong	30.6	66	69.4	185	0.9	251
10	Kratie	11.4	72	88.6	579	2.3	651
11	Mondul Kiri	7.6	10	92.4	137	0.4	147
12	Phnom Penh	93.1	1,900	6.9	195	8.9	2,095
13	Preah Vihear	6.2	19	93.8	321	1.2	340
14	Prey Veng	3.1	64	96.9	2,351	8.0	2,415
15	Pursat	6.5	58	93.5	836	3.0	894
16	Ratanak Kiri	13.6	28	86.4	296	1.0	324
17	Siemreap	19.0	240	81.0	1,530	6.4	1,770
18	Preah Sihanouk	41.1	118	58.9	244	1.6	362
19	Stung Treng	15.5	28	84.5	212	0.7	240
20	Svay Rieng	3.1	34	96.9	1,214	4.1	1,248
21	Takeo	1.5	23	98.5	1,939	6.5	1,962
22	Oddar Meanchey	9.4	37	90.6	395	1.4	432
23	Kep	13.4	9	86.6	57	0.3	66
24	Pailin	22.3	34	77.7	124	0.5	158
	Cambodia	18.0	4,301	82.0	24,373	100.0	28,674

Table A.2 Percentage distribution of households and number of EAs by domain and by type of residence (Sampling frame, Cambodia GPC 2008)

Domain code	Domain name	Urban		Rural		Total	
		Household	EA	Household	EA	Household	EA
1	Banteay Meanchey	25.7	339	74.3	1,145	5.1	1,484
2	Kampong Cham	6.8	231	93.2	3,451	13.1	3,682
3	Kampong Chhnang	8.2	72	91.8	945	3.6	1,017
4	Kampong Speu	7.1	112	92.9	1,636	5.3	1,748
5	Kampong Thom	5.0	63	95.0	1,347	4.8	1,410
6	Kandal	14.3	325	85.8	2,304	9.1	2,629
7	Kratie	11.4	72	88.6	579	2.3	651
8	Phnom Penh	93.1	1,900	6.9	195	8.9	2,095
9	Prey Veng	3.1	64	96.9	2,351	8.0	2,415
10	Pursat	6.5	58	93.5	836	3.0	894
11	Siemreap	19.0	240	81.0	1,530	6.4	1,770
12	Svay Rieng	3.1	34	96.9	1,214	4.1	1,248
13	Takeo	1.5	23	98.5	1,939	6.5	1,962
14	Oddar Meanchey	9.4	37	90.6	395	1.4	432
15	Battambang/Pailin	17.4	367	82.7	1,867	8.0	2,234
16	Kampot/Kep	7.9	95	92.1	1,244	4.9	1,339
17	Koh Kong/Preah Sihanouk	37.4	184	62.6	429	2.4	613
18	Preah Vihear/Stung Treng	9.8	47	90.2	533	1.9	580
19	Mondul Kiri/Ratanak Kiri	11.8	38	88.2	433	1.4	471
	Cambodia	18.0	4,301	82.0	24,373	100.0	28,674

A.3 SAMPLING PROCEDURE

The sample for the 2010 CDHS is a stratified sample selected in two stages. Stratification is achieved by separating every survey domain into urban and rural areas. As a result, the 19 domains are stratified into a total of 38 sampling strata. Samples are selected independently in every stratum, by a two-stage random selection process. Implicit stratifications are achieved at each of the lower-level geographical/administrative units by sorting the sampling frame before sample selection, according to geographical/administrative units, and by using a probability proportional to size at first-stage sampling.

Because of the large number of study domains and the relatively low fertility rate in most of the provinces, to ensure that survey precisions was comparable across domains, an equal size allocation of about 900 completed interviews among domains was adopted with some adjustment. The sample allocated to each domain was then allocated to the urban and rural areas of each domain, with a square root allocation in order to oversample the urban areas, which are small in Cambodia. Phnom Penh is allocated a relatively larger sample size because of the low fertility rate in Phnom Penh and the large proportion of urban residences. The allocated sample size is then converted to number of households and number of EAs by taking the nonresponses into account, by using the average number of eligible women age 15-49 per household, and by ensuring that 24 households per urban EA and 28 households per rural EA are interviewed. Table 3.1 below shows the sample allocation in number of EAs and number of households, by domain and by type of residence. In total, 611 EAs will be needed; among them, 191 will be selected from the urban areas, and 420 will be selected from the rural areas.

In the first stage, the 611 sample EAs will be selected with probability proportional to the EA size, according to the sample allocation given in Table A.3 below. The EA size is the number of households residing in the EA. After the sample selection of EAs and before the main survey, a household listing operation will be carried out in all of the selected EAs, and the resulting lists of households will serve as the sampling frame for the selection of households in the second stage. Some of the selected EAs may be large. To minimize the task of household listing, the selected EAs that have more than 200 households will be segmented; only one segment will be selected randomly to include in the survey, with a selection probability proportional to the segment size. Household listing will be conducted only in the selected segment. So, a 2010 CDHS cluster is either an EA or a segment of an EA. In the second stage of selection, a fixed number of 24 households is selected from every urban cluster, and a fixed number of 28 households is selected from every rural cluster by an equal probability systematic sampling.

To ensure that all listed households have an equal chance of selection for the interview and prevent bias from being introduced by interviewers selecting the sample households at the time of the main survey, the sample households for the 2010 CDHS-III are pre-selected in the central office.. A household selection spreadsheet is prepared to facilitate household selection in the central office. During the main survey, to prevent bias, the interviewer is asked to interview only the pre-selected households, and no replacement is allowed for households not found or not responding. All women 15-49 found in the selected households are eligible for the individual survey, and all will be interviewed with the individual questionnaire.

Table A.3 below shows the sample allocation of EAs and households by domain and by type of residence. Table A.4 below shows the expected number of interviews of women and men by domain and by type of residence. The number of sample households from urban and rural areas will be 4,584 and 11,760, respectively, with a total sample size of 16,344. The expected number of completed interviews with women is 5,297 for urban areas and 12,657 for rural areas, respectively, with the total number of completed interviews with women being 17,954. For the male survey, conducted in half of the households selected for the female survey, the expected numbers of completed interviews with men is 1,986 for urban areas and 5,194 for rural areas, for a total number of 7,180 interviews.

Table A.3 Sample allocation of EAs and households by domain and by type of residence (CDHS 2010)

	Allocation of EA			Allocation of Household		
Domain name	Urban	Rural	Total	Urban	Rural	Total
Banteay Meanchey	14	20	34	336	560	896
Kampong Cham	8	26	34	192	728	920
Kampong Chhnang	9	26	35	216	728	944
Kampong Speu	7	23	30	168	644	812
Kampong Thom	7	24	31	168	672	840
Kandal	10	21	31	240	588	828
Kratie	9	22	31	216	616	832
Phnom Penh	35	4	39	840	112	952
Prey Veng	6	27	33	144	756	900
Pursat	7	23	30	168	644	812
Siemreap	10	20	30	240	560	800
Svay Rieng	6	28	34	144	784	928
Takeo	4	28	32	96	784	880
Oddar Meanchey	8	22	30	192	616	808
Battambang/Pailin	9	21	30	216	588	804
Kampot/Kep	8	23	31	192	644	836
Koh Kong/Preah Sihanouk	15	17	32	360	476	836
Preah Vihear/Stung Treng	9	22	31	216	616	832
Mondul Kiri/Ratanak Kiri	10	23	33	240	644	884
Cambodia	191	420	611	4,584	11,760	16,344

Table A.4 Sample allocation of expected number of interviews of women and men by domain and by type of residence (CDHS 2010)

	Women completed			Men completed		
Domain name	Urban	Rural	Total	Urban	Rural	Total
Banteay Meanchey	343	570	913	145	247	392
Kampong Cham	186	708	894	83	322	405
Kampong Chhnang	206	695	901	94	322	416
Kampong Speu	182	700	882	73	285	358
Kampong Thom	180	720	900	73	297	370
Kandal	260	637	897	104	259	363
Kratie	229	654	883	94	272	366
Phnom Penh	1,252	166	1,418	363	49	412
Prey Veng	147	774	921	63	334	397
Pursat	187	716	903	73	285	358
Siemreap	287	669	956	104	247	351
Svay Rieng	142	776	918	63	346	409
Takeo	100	816	916	41	346	387
Oddar Meanchey	228	732	960	83	272	355
Battambang/Pailin	282	770	1,052	94	259	353
Kampot/Kep	207	697	904	83	285	368
Koh Kong/Preah Sihanouk	395	521	916	155	210	365
Preah Vihear/Stung Treng	232	663	895	94	272	366
Mondul Kiri/Ratanak Kiri	252	673	925	104	285	389
Cambodia	5,297	12,657	17,954	1,986	5,194	7,180

Note: Men survey will be conducted in one of every two households selected for the women survey women.

The preceding sample distributions are calculated based on the facts obtained from the 2005 CDHS. The survey showed an average of 1.2 women age 15-49 per household, with small variations across the domain; the household gross response rate was 94 percent for both urban and rural areas; and the individual response rate for women was 97 percent for both urban and rural areas. Among men, there was an average of 1.0 man age15-49 per household; individual response rates for men were 92 percent for urban areas and 93 percent for rural areas.

A.4 SAMPLING PROBABILITIES

Because of the nonproportional allocation of the sample to various domains and their urban and rural areas, sampling weights are required for any analysis using CDHS-III 2010 data. These ensure the survey results are representative at the national level as well as at the regional level. The CDHS-III 2010 sample is a two-stage stratified cluster sample, so sampling weights will be calculated based on use of separate sampling probabilities for each sampling stage and for each cluster. We use the following notations:

P_{1hi}: first-stage sampling probability of the i^{th} cluster in stratum h
P_{2hi}: second -stage sampling probability within the i^{th} cluster (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 CDHS-III 2010 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, and let g_{hi} be the number of households selected in the cluster. The second-stage 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 product of the two stages of 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 will be prepared to facilitate the calculation of sampling weights. Several sets of weights will be calculated for the women's survey and men's survey. Sampling weights will be adjusted for household and individual failure to respond. The differences in the household weights and the individual weights are introduced by individual nonresponse. The final weights will be normalized so that the total number of unweighted cases equals the total number of weighted cases at the national level, for both household weights and individual weights, and for the women's survey and men's surveys, respectively.

Table A.5 Sample implementation: women

Percent distribution of households andt eligible women by results of the household and individual interviews and household, eligible women and overall response rates, according to urban-rural residence and province, Cambodia 2010

	Residence		Province									
Result	Urban	Rural	Banteay Mean Chey	Kampong Cham	Kampong Chhnang	Kampong Speu	Kampong Thom	Kandal	Kratie	Phnom Penh	Prey Veng	Pursat
Selected households												
Completed (C)	95.7	95.9	93.5	95.5	97.4	96.2	96.3	95.9	97.6	94.9	95.9	94.7
Household present but no competent respondent at home (HP)	0.8	0.9	1.3	0.4	0.4	1.8	0.1	0.4	0.5	0.4	0.0	0.6
Postponed (P)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.1	0.0
Dwelling not found (DNF)	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.3	0.0
Household absent (HA)	1.7	2.3	1.6	2.9	1.5	1.1	3.5	2.5	1.3	0.9	3.2	3.3
Dwelling vacant/address not a dwelling (DV)	1.5	0.7	3.1	1.0	0.5	0.9	0.1	0.8	0.6	3.4	0.3	1.4
Dwelling destroy (DD)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	4,584	11,760	896	920	944	812	840	828	832	952	900	812
Household response rate (HRR)	98.9	99.0	98.4	99.4	99.4	98.1	99.9	99.5	99.5	99.1	99.5	99.4
Eligible women												
Completed (EWC)	97.6	97.4	96.8	93.6	98.7	97.3	98.5	96.6	98.6	97.4	98.3	100.0
Not at home (EWNH)	1.3	1.5	2.2	3.5	0.2	2.0	0.6	2.2	0.5	1.3	0.6	0.0
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.5	0.3	0.1	2.1	0.1	0.1	0.1	0.3	0.0	0.6	0.1	0.0
Partly completed (EWPC)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.0	0.0
Incapacitated (EWI)	0.5	0.6	0.7	0.8	1.0	0.6	0.6	0.9	0.6	0.6	1.0	0.0
Other (EWO)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	6,228	13,009	949	971	1,147	985	984	1,027	950	1,413	889	847
Eligible women response rate (EWRR)	97.6	97.4	96.8	93.6	98.7	97.3	98.5	96.6	98.6	97.4	98.3	100.0
Overall response rate (ORR)	96.5	96.5	95.2	93.1	98.1	95.4	98.4	96.1	98.1	96.5	97.9	99.4

Continued…

Table A.5—*Continued*

	Province									
Result	Siem Reap	Svay Rieng	Takeo	Otdar Mean Chey	Battam-bang/ Pailin	Kampot/ Kep	Preah Sihanouk/ Koh Kong	Preah Vihear/ Steung Treng	Mondol Kiri/ Rattanak Kiri	Total
Selected households										
Completed (C)	94.9	97.1	97.0	92.0	96.5	97.1	94.9	97.4	96.4	95.9
Household present but no competent respondent at home (HP)	4.5	0.1	0.0	2.1	0.2	1.2	1.2	0.6	0.8	0.9
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.1
Dwelling not found (DNF)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	0.6	2.2	2.7	5.3	2.5	1.3	1.6	0.7	2.4	2.2
Dwelling vacant/address not a dwelling (DV)	0.0	0.4	0.1	0.5	0.7	0.4	2.3	1.2	0.1	1.0
Dwelling destroy (DD)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	800	928	880	808	804	836	836	832	884	16,344
Household response rate (HRR)	95.5	99.7	99.9	97.6	99.7	98.8	98.6	99.3	99.0	99.0
Eligible women										
Completed (EWC)	97.4	97.8	97.3	98.6	97.1	96.2	98.6	99.1	94.8	97.5
Not at home (EWNH)	1.8	0.8	1.7	0.5	1.9	2.4	0.6	0.5	4.1	1.5
Postponed (EWP)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.6	0.8	0.0	0.4	0.6	0.2	0.0	0.0	1.0	0.4
Partly completed (EWPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incapacitated (EWI)	0.1	0.6	0.9	0.2	0.3	1.2	0.8	0.4	0.2	0.6
Other (EWO)	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,011	1,013	926	960	905	946	1,104	1,064	1,146	19,237
Eligible women response rate (EWRR)	97.4	97.8	97.3	98.6	97.1	96.2	98.6	99.1	94.8	97.5
Overall response rate (ORR)	93.0	97.5	97.2	96.3	96.9	95.0	97.2	98.3	93.8	96.5

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women's response rate (EWRR) is equivalent to the percentage of interviews completed (EWC)

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall women's response rate (OWRR) is calculated as: OWRR = HRR * EWRR/100

Table A.6 Sample implementation: men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall response rates, according to urban-rural residence and province, Cambodia 2010

Result	Residence		Province									
	Urban	Rural	Banteay Mean Chey	Kampong Cham	Kampong Chhnang	Kampong Speu	Kampong Thom	Kandal	Kratie	Phnom Penh	Prey Veng	Pursat
Selected households												
Completed (C)	95.4	96.0	93.5	95.9	97.2	96.1	96.0	95.4	98.1	94.5	95.6	95.1
Household present but no competent respondent at home (HP)	0.8	0.6	1.3	0.4	0.4	1.7	0.0	0.2	0.2	0.4	0.0	0.5
Postponed (P)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.2	0.0
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Household absent (HA)	2.0	2.6	2.0	2.4	1.5	1.2	4.0	2.7	1.2	1.5	3.6	3.5
Dwelling vacant/address not a dwelling (DV)	1.4	0.7	2.7	1.1	0.6	1.0	0.0	1.0	0.5	2.9	0.4	1.0
Dwelling destroy (DD)	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.2	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,293	5,874	448	462	472	406	420	414	416	476	450	405
Household response rate (HRR)	98.8	99.2	98.4	99.3	99.4	98.2	100.0	99.5	99.8	98.9	99.8	99.5
Eligible men												
Completed (EMC)	95.7	94.8	93.9	86.9	96.7	93.4	96.4	95.9	98.1	97.4	94.4	98.5
Not at home (EMNH)	3.1	3.8	4.8	8.0	1.9	4.9	3.1	3.2	1.7	1.8	4.1	1.0
Postponed (EMP)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Refused (EMR)	0.6	0.5	0.0	3.0	0.2	0.9	0.2	0.0	0.0	0.7	0.0	0.0
Partly completed (EMPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Incapacitated (EMI)	0.5	0.8	1.3	2.2	1.2	0.7	0.0	0.7	0.2	0.2	1.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,722	5,943	378	464	514	427	422	436	421	608	411	403
Eligible men response rate (EMRR)	95.7	94.8	93.9	86.9	96.7	93.4	96.4	95.9	98.1	97.4	94.4	98.5
Overall men's response rate (ORR)	94.6	94.0	92.4	86.3	96.1	91.8	96.4	95.4	97.9	96.3	94.2	98.0

Continued…

Table A.6—*Continued*

Result	Province									Total
	Siem Reap	Svay Rieng	Takeo	Otdar Mean Chey	Battam-bang/ Pailin	Kampot/ Kep	Preah Sihanouk/ Koh Kong	Preah Vihear/ Steung Treng	Mondol Kiri/ Rattanak Kiri	
Selected households										
Completed (C)	96.0	96.1	96.8	91.8	96.0	97.1	95.7	97.1	96.2	95.8
Household present but no competent respondent at home (HP)	3.5	0.2	0.0	1.5	0.0	1.2	1.0	1.0	0.0	0.7
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.1
Dwelling not found (DNF)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	0.5	3.0	2.7	6.0	3.0	1.2	1.7	1.0	3.4	2.4
Dwelling vacant/address not a dwelling (DV)	0.0	0.4	0.2	0.5	1.0	0.5	1.7	0.7	0.2	0.9
Dwelling destroy (DD)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	400	464	440	402	402	418	416	414	442	8,167
Household response rate (HRR)	96.5	99.6	99.8	98.1	100.0	98.8	99.0	98.8	99.8	99.1
Eligible men										
Completed (EMC)	93.6	94.4	95.7	98.5	93.8	94.1	98.9	96.9	88.9	95.1
Not at home (EMNH)	5.7	3.1	3.4	1.3	4.3	4.0	0.8	2.4	8.3	3.6
Postponed (EMP)	0.2	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.1
Refused (EMR)	0.2	1.1	0.5	0.0	0.7	0.7	0.0	0.0	1.6	0.5
Partly completed (EMPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incapacitated (EMI)	0.2	1.3	0.2	0.0	1.0	1.2	0.4	0.6	0.9	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	453	450	417	466	416	405	532	491	551	8,665
Eligible men's response rate (EMRR)	93.6	94.4	95.7	98.5	93.8	94.1	98.9	96.9	88.9	95.1
Overall men's response rate (ORR)	90.3	94.0	95.5	96.7	93.8	92.9	97.9	95.8	88.7	94.2

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible men's response rate (EMRR) is equivalent to the percentage of interviews completed (EMC)

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[3] The overall men's response rate (OMRR) is calculated as: OMRR = HRR * EMRR/100

ESTIMATES OF SAMPLING ERRORS

Appendix B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2010 Cambodia Demographic and Health Survey (CDHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2010 CDHS is only one of many samples that could have been selected from the same population, using the same design and identical 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 2010 CDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. The computer software used to calculate sampling errors for the 2010 CDHS is an SAS program. This program uses the Taylor linearization method for 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:

$$SE^2(r) = var(r) = \frac{1}{x^2}\sum_{h=1}^{H}\left[(1-f_h)\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

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_h is the sampling fraction of PSU in the h^{th} stratum

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 formulas. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2010 CDHS, there were 611 non-empty clusters. Hence, 611 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 611 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 610 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the program computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error is from the use of a more complex and less statistically efficient design, such as multistage and cluster selection. The program also computes the relative standard error and the confidence limits for the estimates.

Sampling errors for the 2010 CDHS are calculated for selected variables considered to be of primary interest for the women's survey and the men's survey. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 19 study domains. 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.23 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±2SE) for each variable. The DEFT is considered undefined when the standard error of simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women over age 40*) can be interpreted as follows: the overall average from the national sample is 4.163, and its standard error is 0.052. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, that is, 4.163±2×0.052. There is a high probability (95 percent) that the *true* average number of children ever born to all women over age 40 is between 4.059 and 4.267.

For the total sample, the value of the design effect (DEFT), averaged over all variables for the women's survey, is 1.462, which means that, due to multistage and clustering of the sample, the average standard error is increased by a factor of 1.462 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Cambodia DHS 2010

Variable	Estimate	Base Population
	WOMEN	
Urban residence	Proportion	All women 15-49
No schooling	Proportion	All women 15-49
Secondary and higher education	Proportion	All women 15-49
Never married (never in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	Women 25-49
Had first sexual intercourse before age 18	Proportion	Women 25-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women over age 40	Mean	Women age 40-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern 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 daily pill	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Mothers received medical assistance at delivery	Proportion	Births in last 5 years
Had diarrhea in last 2 weeks	Proportion	Children under 5
Treated with ORS packets or pre-packed liquid	Proportion	Children under 5 with diarrhea in last 2 weeks
Consulted medical personnel for diarrhea	Proportion	Children under 5 with diarrhea in last 2 weeks
Having health card, seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height (< -2 SD)	Proportion	Children under 5 who were measured
Height-for-age (< -2 SD)	Proportion	Children under 5 who were measured
Weight-for-age (< -2 SD)	Proportion	Children under 5 who were measured
Total fertility rate (last 3 years)	Rate	Woman-years of exposure to childbearing
Neonatal mortality rate[1]	Rate	Number of births
Post neonatal mortality rate[1]	Rate	Number of births
Infant mortality rate[1]	Rate	Number of births
Child mortality rate[1]	Rate	Number of births
Under-five mortality rate[1]	Rate	Number of births
Experienced violence in last 12 months	Proportion	Ever-married women age 15-49
Maternal mortality rate[2] (last 0-6 years)	Rate	Woman-years of exposure
	MEN	
Urban residence	Proportion	All men 15-49
No schooling	Proportion	All men 15-49
Secondary and higher education	Proportion	All men 15-49
Never married (never in union)	Proportion	All men 15-49
Currently married (in union)	Proportion	All men 15-49
Married before age 20	Proportion	All men 25-49
Had first sexual intercourse before age 18	Proportion	All men 25-49

[1] The mortality rates are calculated for last 5 years for the total sample, and 10 years for the urban, rural, and regional samples.
[2] The maternal mortality rate is calculated just for the total sample since the regional sample sizes are not big enough for a reliable estimation.

Table B.2 Sampling errors: Total sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.210	0.006	18754	18754	1.994	0.028	0.198	0.222
No schooling	0.159	0.006	18754	18754	2.403	0.040	0.146	0.171
Secondary or higher education	0.347	0.009	18754	18754	2.596	0.026	0.330	0.365
Never married (never in union)	0.308	0.005	18754	18754	1.549	0.017	0.298	0.319
Currently married (in union)	0.620	0.005	18754	18754	1.562	0.009	0.609	0.631
Married before age 20	0.449	0.006	14839	15020	1.524	0.014	0.436	0.461
Had first sexual intercourse before age 18	0.192	0.005	14839	15020	1.407	0.023	0.183	0.201
Currently pregnant	0.050	0.002	18754	18754	1.315	0.042	0.046	0.054
Children ever born	2.014	0.023	18754	18754	1.449	0.011	1.969	2.060
Children surviving	1.807	0.020	18754	18754	1.424	0.011	1.768	1.847
Children ever born to women age 40-49	4.163	0.052	4285	4393	1.419	0.013	4.059	4.267
Knows any contraceptive method	0.997	0.001	11536	11626	1.310	0.001	0.996	0.998
Knows any modern contraceptive method	0.997	0.001	11536	11626	1.326	0.001	0.996	0.998
Currently using any method	0.505	0.007	11536	11626	1.575	0.014	0.491	0.520
Currently using a modern method	0.349	0.007	11536	11626	1.655	0.021	0.334	0.363
Currently using pill	0.154	0.006	11536	11626	1.738	0.038	0.142	0.165
Currently using condoms	0.027	0.002	11536	11626	1.384	0.076	0.023	0.031
Want no more children	0.563	0.006	11536	11626	1.256	0.010	0.551	0.574
Want to delay birth at least 2 years	0.252	0.005	11536	11626	1.314	0.021	0.241	0.262
Mothers received medical assistance at delivery	0.710	0.012	8232	8200	2.081	0.017	0.686	0.734
Having diarrhea in the last 2 weeks	0.149	0.006	7820	7811	1.530	0.043	0.136	0.161
Treated with ORS or pre-packed liquid	0.341	0.019	1135	1161	1.316	0.056	0.303	0.378
Consulted medical personnel for diarrhea	0.589	0.019	1135	1161	1.266	0.032	0.552	0.627
Vaccination card seen	0.774	0.014	1619	1614	1.381	0.019	0.745	0.803
Received BCG	0.943	0.007	1619	1614	1.300	0.008	0.928	0.958
Received DPT (3 doses)	0.848	0.011	1619	1614	1.274	0.014	0.825	0.871
Received polio (3 doses)	0.850	0.011	1619	1614	1.259	0.013	0.828	0.873
Received measles	0.819	0.014	1619	1614	1.427	0.017	0.791	0.846
Fully immunized	0.788	0.015	1619	1614	1.462	0.019	0.758	0.818
Height-for-age (below -2SD)	0.399	0.011	4051	3975	1.379	0.028	0.377	0.422
Weight-for-height (below -2SD)	0.109	0.006	4051	3975	1.246	0.058	0.097	0.122
Weight-for-age (below -2SD)	0.283	0.010	4051	3975	1.326	0.035	0.263	0.303
Total fertility rate (last 3 years)	3.045	0.063	52420	52552	1.470	0.021	2.919	3.171
Neonatal mortality (last 0-4 years)	26.971	2.258	8298	8288	1.203	0.084	22.455	31.487
Post-neonatal mortality (last 0-4 years)	17.919	1.683	8300	8272	1.087	0.094	14.553	21.284
Infant mortality (last 0-4 years)	44.890	2.843	8310	8296	1.159	0.063	39.205	50.575
Child mortality (last 0-4 years)	9.211	1.307	8104	8080	1.190	0.142	6.597	11.826
Under-five mortality (last 0-4 years)	53.688	3.185	8345	8326	1.187	0.059	47.317	60.059
Maternal mortality ratio (last 0-6 years)	206	41	na	na	1.266	0.200	124	288
			MEN					
Urban residence	0.206	0.008	8239	8239	1.849	0.040	0.190	0.222
No schooling	0.078	0.005	8239	8239	1.791	0.068	0.067	0.088
Secondary or higher education	0.510	0.012	8239	8239	2.155	0.023	0.487	0.534
Never married (never in union)	0.386	0.008	8239	8239	1.436	0.020	0.371	0.401
Currently married (in union)	0.589	0.008	8239	8239	1.420	0.013	0.574	0.604
Married before age 20	0.215	0.008	6380	6376	1.494	0.036	0.200	0.230
Had first sexual intercourse before age 18	0.077	0.005	6380	6376	1.374	0.059	0.068	0.086

Table B.3 Sampling errors: Urban sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	1.000	0.000	6077	3936	na	0.000	1.000	1.000
No schooling	0.066	0.005	6077	3936	1.576	0.075	0.056	0.076
Secondary or higher education	0.574	0.017	6077	3936	2.765	0.030	0.539	0.609
Never married (never in union)	0.405	0.010	6077	3936	1.563	0.024	0.386	0.425
Currently married (in union)	0.526	0.009	6077	3936	1.483	0.018	0.507	0.545
Married before age 20	0.306	0.010	4769	3123	1.501	0.032	0.286	0.326
Had first sexual intercourse before age 18	0.110	0.007	4769	3123	1.495	0.061	0.097	0.123
Currently pregnant	0.038	0.003	6077	3936	1.307	0.084	0.032	0.044
Children ever born	1.392	0.033	6077	3936	1.514	0.024	1.326	1.459
Children surviving	1.312	0.030	6077	3936	1.482	0.023	1.252	1.372
Children ever born to women age 40-49	3.149	0.089	1308	812	1.664	0.028	2.971	3.327
Knows any contraceptive method	0.999	0.000	3343	2069	0.850	0.000	0.999	1.000
Knows any modern contraceptive method	0.999	0.000	3343	2069	0.816	0.000	0.999	1.000
Currently using any method	0.548	0.014	3343	2069	1.626	0.025	0.520	0.575
Currently using a modern method	0.307	0.013	3343	2069	1.603	0.041	0.281	0.332
Currently using pill	0.124	0.008	3343	2069	1.365	0.062	0.109	0.140
Currently using condoms	0.051	0.006	3343	2069	1.691	0.125	0.038	0.064
Want no more children	0.528	0.012	3343	2069	1.436	0.023	0.503	0.552
Want to delay birth at least 2 years	0.258	0.010	3343	2069	1.312	0.038	0.238	0.278
Mothers received medical assistance at delivery	0.947	0.008	2113	1281	1.394	0.008	0.931	0.963
Having diarrhea in the last 2 weeks	0.104	0.010	2053	1256	1.390	0.091	0.085	0.124
Treated with ORS or pre-packed liquid	0.330	0.044	231	131	1.319	0.133	0.242	0.417
Consulted medical personnel for diarrhea	0.581	0.043	231	131	1.236	0.073	0.496	0.667
Vaccination card seen	0.771	0.026	455	278	1.302	0.034	0.719	0.823
Received BCG	0.971	0.011	455	278	1.342	0.011	0.950	0.992
Received DPT (3 doses)	0.904	0.017	455	278	1.271	0.019	0.869	0.939
Received polio (3 doses)	0.906	0.017	455	278	1.282	0.019	0.871	0.941
Received measles	0.865	0.021	455	278	1.302	0.024	0.824	0.907
Fully immunized	0.855	0.021	455	278	1.272	0.025	0.813	0.896
Height-for-age (below -2SD)	0.275	0.018	1050	600	1.239	0.065	0.239	0.310
Weight-for-height (below -2SD)	0.116	0.015	1050	600	1.377	0.127	0.086	0.145
Weight-for-age (below -2SD)	0.188	0.015	1050	600	1.197	0.081	0.157	0.218
Total fertility rate (last 3 years)	2.221	0.102	17048	11131	1.629	0.046	2.016	2.426
Neonatal mortality (last 0-9 years)	11.134	2.078	4007	2438	1.120	0.187	6.977	15.291
Post-neonatal mortality (last 0-9 years)	10.911	2.162	4018	2444	1.018	0.198	6.587	15.235
Infant mortality (last 0-9 years)	22.045	3.308	4012	2441	1.097	0.150	15.429	28.660
Child mortality (last 0-9 years)	6.829	1.799	4041	2448	1.252	0.264	3.230	10.428
Under-five mortality (last 0-9 years)	28.723	3.988	4023	2449	1.167	0.139	20.748	36.699
			MEN					
Urban residence	1.000	0.000	2606	1697	na	0.000	1.000	1.000
No schooling	0.025	0.005	2606	1697	1.699	0.206	0.015	0.036
Secondary or higher education	0.756	0.016	2606	1697	1.890	0.021	0.724	0.787
Never married (never in union)	0.479	0.016	2606	1697	1.620	0.033	0.448	0.510
Currently married (in union)	0.501	0.015	2606	1697	1.534	0.030	0.472	0.531
Married before age 20	0.101	0.010	2046	1346	1.517	0.100	0.081	0.121
Had first sexual intercourse before age 18	0.042	0.005	2046	1346	1.190	0.126	0.032	0.052

Table B.4 Sampling errors: Rural sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.000	0.000	12677	14818	na	na	0.000	0.000
No schooling	0.183	0.008	12677	14818	2.309	0.043	0.167	0.199
Secondary or higher education	0.287	0.010	12677	14818	2.522	0.035	0.267	0.307
Never married (never in union)	0.283	0.006	12677	14818	1.506	0.021	0.271	0.295
Currently married (in union)	0.645	0.006	12677	14818	1.541	0.010	0.632	0.658
Married before age 20	0.486	0.007	10070	11898	1.458	0.015	0.472	0.501
Had first sexual intercourse before age 18	0.214	0.005	10070	11898	1.316	0.025	0.203	0.225
Currently pregnant	0.053	0.002	12677	14818	1.254	0.047	0.048	0.058
Children ever born	2.180	0.027	12677	14818	1.361	0.012	2.125	2.234
Children surviving	1.939	0.023	12677	14818	1.345	0.012	1.892	1.986
Children ever born to women age 40-49	4.393	0.059	2977	3581	1.316	0.013	4.275	4.511
Knows any contraceptive method	0.997	0.001	8193	9557	1.231	0.001	0.995	0.998
Knows any modern contraceptive method	0.996	0.001	8193	9557	1.248	0.001	0.995	0.998
Currently using any method	0.496	0.008	8193	9557	1.520	0.017	0.480	0.513
Currently using a modern method	0.358	0.008	8193	9557	1.599	0.023	0.341	0.375
Currently using pill	0.160	0.007	8193	9557	1.698	0.043	0.147	0.174
Currently using condoms	0.022	0.002	8193	9557	1.321	0.096	0.018	0.026
Want no more children	0.571	0.006	8193	9557	1.195	0.011	0.558	0.584
Want to delay birth at least 2 years	0.250	0.006	8193	9557	1.273	0.024	0.238	0.262
Mothers received medical assistance at delivery	0.666	0.014	6119	6919	1.977	0.021	0.639	0.694
Having diarrhea in the last 2 weeks	0.157	0.007	5767	6555	1.463	0.047	0.142	0.172
Treated with ORS or pre-packed liquid	0.342	0.021	904	1029	1.252	0.060	0.301	0.383
Consulted medical personnel for diarrhea	0.590	0.020	904	1029	1.207	0.035	0.549	0.631
Vaccination card seen	0.775	0.017	1164	1335	1.345	0.021	0.742	0.808
Received BCG	0.938	0.009	1164	1335	1.232	0.009	0.920	0.955
Received DPT (3 doses)	0.837	0.013	1164	1335	1.219	0.016	0.810	0.863
Received polio (3 doses)	0.839	0.013	1164	1335	1.204	0.016	0.812	0.865
Received measles	0.809	0.016	1164	1335	1.379	0.020	0.777	0.841
Fully immunized	0.774	0.018	1164	1335	1.417	0.023	0.739	0.809
Height-for-age (below -2SD)	0.422	0.013	3001	3375	1.331	0.030	0.396	0.447
Weight-for-height (below -2SD)	0.108	0.007	3001	3375	1.190	0.064	0.094	0.122
Weight-for-age (below -2SD)	0.300	0.011	3001	3375	1.280	0.038	0.278	0.323
Total fertility rate (last 3 years)	3.282	0.067	35373	41421	1.370	0.020	3.148	3.416
Neonatal mortality (last 0-9 years)	34.888	2.132	12131	13678	1.156	0.061	30.624	39.153
Post-neonatal mortality (last 0-9 years)	29.106	1.986	12152	13691	1.165	0.068	25.133	33.078
Infant mortality (last 0-9 years)	63.994	2.912	12147	13700	1.156	0.046	58.169	69.819
Child mortality (last 0-9 years)	11.682	1.148	12241	13789	1.072	0.098	9.386	13.979
Under-five mortality (last 0-9 years)	74.929	3.069	12187	13740	1.119	0.041	68.791	81.067
			MEN					
Urban residence	0.000	0.000	5633	6542	na	na	0.000	0.000
No schooling	0.091	0.006	5633	6542	1.686	0.071	0.079	0.104
Secondary or higher education	0.447	0.014	5633	6542	2.088	0.031	0.419	0.474
Never married (never in union)	0.362	0.008	5633	6542	1.320	0.023	0.345	0.379
Currently married (in union)	0.612	0.009	5633	6542	1.321	0.014	0.595	0.629
Married before age 20	0.246	0.009	4334	5031	1.398	0.037	0.228	0.264
Had first sexual intercourse before age 18	0.087	0.006	4334	5031	1.315	0.065	0.076	0.098

Table B.5 Sampling errors: Banteay Mean Chey sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.311	0.037	919	719	2.441	0.119	0.237	0.385
No schooling	0.181	0.018	919	719	1.416	0.098	0.145	0.217
Secondary or higher education	0.283	0.030	919	719	2.025	0.106	0.223	0.342
Never married (never in union)	0.293	0.019	919	719	1.285	0.065	0.255	0.331
Currently married (in union)	0.631	0.020	919	719	1.240	0.031	0.592	0.670
Married before age 20	0.511	0.021	729	567	1.157	0.041	0.469	0.554
Had first sexual intercourse before age 18	0.269	0.022	729	567	1.332	0.081	0.226	0.313
Currently pregnant	0.048	0.009	919	719	1.265	0.184	0.030	0.066
Children ever born	2.172	0.077	919	719	1.060	0.036	2.018	2.327
Children surviving	1.890	0.069	919	719	1.144	0.037	1.752	2.029
Children ever born to women age 40-49	4.288	0.196	221	180	1.336	0.046	3.896	4.680
Knows any contraceptive method	1.000	0.000	576	454	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	576	454	na	0.000	1.000	1.000
Currently using any method	0.514	0.030	576	454	1.458	0.059	0.454	0.575
Currently using a modern method	0.433	0.029	576	454	1.408	0.067	0.375	0.490
Currently using pill	0.264	0.025	576	454	1.384	0.095	0.214	0.315
Currently using condoms	0.024	0.009	576	454	1.420	0.371	0.006	0.042
Want no more children	0.553	0.022	576	454	1.078	0.040	0.509	0.598
Want to delay birth at least 2 years	0.284	0.023	576	454	1.218	0.080	0.239	0.329
Mothers received medical assistance at delivery	0.690	0.061	396	297	2.209	0.088	0.569	0.811
Having diarrhea in the last 2 weeks	0.154	0.027	375	281	1.310	0.174	0.101	0.208
Treated with ORS or pre-packed liquid	0.347	0.076	58	43	1.121	0.220	0.194	0.499
Consulted medical personnel for diarrhea	0.514	0.078	58	43	1.061	0.152	0.358	0.670
Vaccination card seen	0.879	0.042	85	63	1.153	0.048	0.795	0.963
Received BCG	1.000	0.000	85	63	na	0.000	1.000	1.000
Received DPT (3 doses)	0.956	0.023	85	63	0.996	0.024	0.911	1.002
Received polio (3 doses)	0.956	0.023	85	63	0.996	0.024	0.911	1.002
Received measles	0.951	0.022	85	63	0.913	0.023	0.907	0.995
Fully immunized	0.930	0.028	85	63	0.999	0.031	0.873	0.987
Height-for-age (below -2SD)	0.334	0.042	235	177	1.308	0.126	0.250	0.418
Weight-for-height (below -2SD)	0.073	0.019	235	177	1.102	0.254	0.036	0.110
Weight-for-age (below -2SD)	0.171	0.025	235	177	1.003	0.145	0.122	0.220
Total fertility rate (last 3 years)	3.190	0.243	2599	2032	1.426	0.076	2.703	3.676
Neonatal mortality (last 0-9 years)	26.395	5.574	773	593	0.939	0.211	15.246	37.544
Post-neonatal mortality (last 0-9 years)	34.484	10.128	774	592	1.325	0.294	14.228	54.740
Infant mortality (last 0-9 years)	60.879	11.723	775	595	1.139	0.193	37.434	84.325
Child mortality (last 0-9 years)	15.601	5.509	772	593	1.180	0.353	4.583	26.619
Under-five mortality (last 0-9 years)	75.530	13.591	779	599	1.166	0.180	48.349	102.711
			MEN					
Urban residence	0.341	0.050	355	275	1.958	0.145	0.240	0.443
No schooling	0.109	0.021	355	275	1.254	0.190	0.067	0.152
Secondary or higher education	0.453	0.032	355	275	1.223	0.071	0.387	0.519
Never married (never in union)	0.337	0.027	355	275	1.055	0.079	0.283	0.392
Currently married (in union)	0.636	0.026	355	275	1.035	0.042	0.582	0.690
Married before age 20	0.244	0.028	284	221	1.106	0.116	0.186	0.301
Had first sexual intercourse before age 18	0.119	0.019	284	221	0.964	0.156	0.081	0.156

Table B.6 Sampling errors: Kampong Cham sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.067	0.007	909	2111	0.874	0.107	0.052	0.081
No schooling	0.200	0.036	909	2111	2.744	0.181	0.127	0.272
Secondary or higher education	0.277	0.039	909	2111	2.657	0.142	0.198	0.355
Never married (never in union)	0.243	0.020	909	2111	1.389	0.081	0.204	0.282
Currently married (in union)	0.669	0.023	909	2111	1.504	0.035	0.622	0.715
Married before age 20	0.499	0.023	752	1762	1.267	0.046	0.453	0.544
Had first sexual intercourse before age 18	0.207	0.021	752	1762	1.407	0.100	0.165	0.248
Currently pregnant	0.068	0.010	909	2111	1.235	0.150	0.047	0.088
Children ever born	2.287	0.087	909	2111	1.188	0.038	2.113	2.460
Children surviving	2.035	0.075	909	2111	1.181	0.037	1.885	2.184
Children ever born to women age 40-49	4.411	0.187	242	548	1.279	0.042	4.037	4.785
Knows any contraceptive method	0.988	0.004	596	1411	0.987	0.005	0.979	0.996
Knows any modern contraceptive method	0.988	0.004	596	1411	0.987	0.005	0.979	0.996
Currently using any method	0.518	0.025	596	1411	1.254	0.049	0.468	0.569
Currently using a modern method	0.283	0.025	596	1411	1.385	0.090	0.232	0.334
Currently using pill	0.112	0.018	596	1411	1.409	0.161	0.076	0.148
Currently using condoms	0.028	0.008	596	1411	1.169	0.279	0.012	0.044
Want no more children	0.534	0.019	596	1411	0.957	0.036	0.495	0.573
Want to delay birth at least 2 years	0.251	0.016	596	1411	0.921	0.065	0.218	0.283
Mothers received medical assistance at delivery	0.679	0.039	408	1008	1.574	0.057	0.602	0.757
Having diarrhea in the last 2 weeks	0.179	0.031	389	961	1.545	0.172	0.118	0.241
Treated with ORS or pre-packed liquid	0.170	0.061	68	172	1.408	0.356	0.049	0.291
Consulted medical personnel for diarrhea	0.619	0.062	68	172	1.084	0.101	0.494	0.743
Vaccination card seen	0.814	0.064	64	165	1.372	0.078	0.687	0.942
Received BCG	0.956	0.025	64	165	1.040	0.027	0.905	1.007
Received DPT (3 doses)	0.899	0.047	64	165	1.323	0.053	0.804	0.994
Received polio (3 doses)	0.919	0.036	64	165	1.111	0.039	0.847	0.991
Received measles	0.879	0.063	64	165	1.614	0.071	0.754	1.005
Fully immunized	0.854	0.080	64	165	1.894	0.093	0.695	1.014
Height-for-age (below -2SD)	0.469	0.050	214	477	1.442	0.107	0.369	0.570
Weight-for-height (below -2SD)	0.118	0.026	214	477	1.182	0.217	0.067	0.169
Weight-for-age (below -2SD)	0.313	0.046	214	477	1.422	0.146	0.222	0.404
Total fertility rate (last 3 years)	3.408	0.202	2571	5988	1.227	0.059	3.004	3.812
Neonatal mortality (last 0-9 years)	33.457	6.291	802	2003	0.925	0.188	20.875	46.040
Post-neonatal mortality (last 0-9 years)	20.400	4.609	798	1995	0.953	0.226	11.182	29.617
Infant mortality (last 0-9 years)	53.857	7.769	804	2009	0.905	0.144	38.320	69.394
Child mortality (last 0-9 years)	3.889	2.243	796	1992	1.001	0.577	0.000	8.374
Under-five mortality (last 0-9 years)	57.536	7.774	806	2012	0.886	0.135	41.987	73.085
			MEN					
Urban residence	0.068	0.011	403	990	0.841	0.155	0.047	0.090
No schooling	0.124	0.030	403	990	1.843	0.245	0.062	0.186
Secondary or higher education	0.441	0.058	403	990	2.341	0.132	0.322	0.559
Never married (never in union)	0.336	0.030	403	990	1.288	0.090	0.274	0.398
Currently married (in union)	0.644	0.033	403	990	1.373	0.051	0.577	0.711
Married before age 20	0.211	0.028	315	765	1.194	0.130	0.155	0.267
Had first sexual intercourse before age 18	0.050	0.013	315	765	1.100	0.272	0.022	0.077

Table B.7 Sampling errors: Kampong Chhnang sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.095	0.009	1132	739	1.005	0.091	0.078	0.113
No schooling	0.153	0.026	1132	739	2.418	0.168	0.101	0.204
Secondary or higher education	0.241	0.029	1132	739	2.264	0.118	0.184	0.298
Never married (never in union)	0.329	0.022	1132	739	1.580	0.066	0.285	0.373
Currently married (in union)	0.610	0.024	1132	739	1.641	0.039	0.562	0.657
Married before age 20	0.439	0.031	893	588	1.873	0.070	0.377	0.501
Had first sexual intercourse before age 18	0.178	0.019	893	588	1.475	0.105	0.140	0.215
Currently pregnant	0.062	0.007	1132	739	1.017	0.117	0.047	0.076
Children ever born	2.270	0.119	1132	739	1.589	0.052	2.032	2.507
Children surviving	2.006	0.099	1132	739	1.538	0.050	1.807	2.205
Children ever born to women age 40-49	4.808	0.221	263	174	1.314	0.046	4.366	5.250
Knows any contraceptive method	1.000	0.000	659	450	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	659	450	na	0.000	1.000	1.000
Currently using any method	0.397	0.025	659	450	1.345	0.064	0.347	0.448
Currently using a modern method	0.265	0.025	659	450	1.447	0.093	0.216	0.315
Currently using pill	0.119	0.016	659	450	1.275	0.134	0.087	0.151
Currently using condoms	0.011	0.005	659	450	1.357	0.503	0.000	0.022
Want no more children	0.570	0.019	659	450	0.969	0.033	0.533	0.607
Want to delay birth at least 2 years	0.273	0.019	659	450	1.114	0.070	0.235	0.311
Mothers received medical assistance at delivery	0.598	0.053	532	380	2.223	0.088	0.492	0.704
Having diarrhea in the last 2 weeks	0.097	0.015	500	352	1.118	0.154	0.067	0.127
Treated with ORS or pre-packed liquid	0.301	0.074	48	34	1.092	0.246	0.153	0.449
Consulted medical personnel for diarrhea	0.667	0.074	48	34	1.066	0.111	0.519	0.815
Vaccination card seen	0.728	0.063	91	63	1.369	0.086	0.602	0.854
Received BCG	0.955	0.024	91	63	1.134	0.025	0.906	1.003
Received DPT (3 doses)	0.817	0.051	91	63	1.281	0.062	0.715	0.920
Received polio (3 doses)	0.817	0.051	91	63	1.281	0.062	0.715	0.920
Received measles	0.785	0.063	91	63	1.480	0.080	0.660	0.911
Fully immunized	0.760	0.064	91	63	1.451	0.084	0.632	0.888
Height-for-age (below -2SD)	0.403	0.035	259	182	1.142	0.088	0.332	0.474
Weight-for-height (below -2SD)	0.114	0.026	259	182	1.280	0.226	0.062	0.165
Weight-for-age (below -2SD)	0.308	0.040	259	182	1.284	0.129	0.229	0.388
Total fertility rate (last 3 years)	3.575	0.244	3155	2067	1.334	0.068	3.086	4.063
Neonatal mortality (last 0-9 years)	44.833	10.831	1052	763	1.391	0.242	23.171	66.496
Post-neonatal mortality (last 0-9 years)	32.792	6.788	1056	766	1.205	0.207	19.216	46.369
Infant mortality (last 0-9 years)	77.626	14.743	1052	763	1.512	0.190	48.139	107.112
Child mortality (last 0-9 years)	20.479	6.583	1072	779	1.307	0.321	7.312	33.645
Under-five mortality (last 0-9 years)	96.514	16.790	1056	765	1.595	0.174	62.935	130.094
			MEN					
Urban residence	0.074	0.009	497	341	0.799	0.127	0.055	0.093
No schooling	0.089	0.018	497	341	1.373	0.198	0.053	0.124
Secondary or higher education	0.384	0.041	497	341	1.891	0.108	0.299	0.468
Never married (never in union)	0.404	0.024	497	341	1.089	0.059	0.356	0.453
Currently married (in union)	0.581	0.025	497	341	1.129	0.043	0.530	0.632
Married before age 20	0.260	0.029	373	257	1.260	0.110	0.202	0.318
Had first sexual intercourse before age 18	0.066	0.016	373	257	1.262	0.245	0.033	0.100

Table B.8 Sampling errors: Kampong Speu sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.086	0.012	958	1060	1.317	0.137	0.063	0.110
No schooling	0.118	0.019	958	1060	1.798	0.157	0.081	0.156
Secondary or higher education	0.377	0.037	958	1060	2.398	0.099	0.303	0.452
Never married (never in union)	0.269	0.019	958	1060	1.321	0.070	0.232	0.307
Currently married (in union)	0.658	0.021	958	1060	1.391	0.032	0.616	0.701
Married before age 20	0.527	0.021	742	834	1.165	0.040	0.485	0.569
Had first sexual intercourse before age 18	0.232	0.015	742	834	0.986	0.065	0.202	0.263
Currently pregnant	0.036	0.005	958	1060	0.914	0.151	0.025	0.047
Children ever born	2.190	0.095	958	1060	1.313	0.043	2.000	2.380
Children surviving	1.969	0.079	958	1060	1.239	0.040	1.811	2.127
Children ever born to women age 40-49	4.608	0.210	215	241	1.330	0.046	4.187	5.029
Knows any contraceptive method	1.000	0.000	607	698	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	607	698	na	0.000	1.000	1.000
Currently using any method	0.533	0.023	607	698	1.128	0.042	0.488	0.579
Currently using a modern method	0.415	0.031	607	698	1.566	0.075	0.353	0.477
Currently using pill	0.193	0.032	607	698	1.985	0.163	0.130	0.257
Currently using condoms	0.021	0.008	607	698	1.354	0.371	0.005	0.037
Want no more children	0.563	0.022	607	698	1.085	0.038	0.520	0.606
Want to delay birth at least 2 years	0.262	0.023	607	698	1.325	0.090	0.215	0.309
Mothers received medical assistance at delivery	0.682	0.063	425	485	2.459	0.093	0.556	0.809
Having diarrhea in the last 2 weeks	0.075	0.019	404	461	1.395	0.252	0.037	0.112
Treated with ORS or pre-packed liquid	0.344	0.085	30	34	0.924	0.247	0.174	0.514
Consulted medical personnel for diarrhea	0.581	0.083	30	34	0.907	0.143	0.414	0.747
Vaccination card seen	0.762	0.062	91	104	1.382	0.081	0.639	0.885
Received BCG	0.947	0.039	91	104	1.666	0.041	0.869	1.025
Received DPT (3 doses)	0.919	0.039	91	104	1.356	0.042	0.842	0.996
Received polio (3 doses)	0.919	0.039	91	104	1.356	0.042	0.842	0.996
Received measles	0.891	0.050	91	104	1.523	0.056	0.791	0.990
Fully immunized	0.891	0.050	91	104	1.523	0.056	0.791	0.990
Height-for-age (below -2SD)	0.421	0.044	201	228	1.207	0.104	0.333	0.509
Weight-for-height (below -2SD)	0.102	0.021	201	228	0.983	0.204	0.061	0.144
Weight-for-age (below -2SD)	0.344	0.044	201	228	1.231	0.127	0.257	0.432
Total fertility rate (last 3 years)	3.114	0.250	2642	2927	1.395	0.080	2.615	3.613
Neonatal mortality (last 0-9 years)	38.893	8.516	830	956	1.264	0.219	21.861	55.925
Post-neonatal mortality (last 0-9 years)	26.290	7.018	833	961	1.094	0.267	12.254	40.326
Infant mortality (last 0-9 years)	65.184	11.383	831	957	1.152	0.175	42.418	87.950
Child mortality (last 0-9 years)	8.816	3.159	850	981	1.041	0.358	2.497	15.134
Under-five mortality (last 0-9 years)	73.425	11.404	832	958	1.132	0.155	50.616	96.233
			MEN					
Urban residence	0.067	0.012	399	468	0.956	0.179	0.042	0.091
No schooling	0.061	0.015	399	468	1.212	0.239	0.031	0.090
Secondary or higher education	0.563	0.044	399	468	1.754	0.078	0.474	0.653
Never married (never in union)	0.375	0.035	399	468	1.454	0.094	0.302	0.447
Currently married (in union)	0.619	0.035	399	468	1.439	0.057	0.548	0.691
Married before age 20	0.234	0.031	308	358	1.284	0.133	0.170	0.297
Had first sexual intercourse before age 18	0.047	0.016	308	358	1.320	0.339	0.014	0.080

Table B.9 Sampling errors: Kampong Thom sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.063	0.007	969	935	0.901	0.110	0.049	0.077
No schooling	0.197	0.032	969	935	2.505	0.161	0.134	0.261
Secondary or higher education	0.253	0.037	969	935	2.692	0.148	0.178	0.327
Never married (never in union)	0.320	0.019	969	935	1.291	0.060	0.281	0.358
Currently married (in union)	0.609	0.020	969	935	1.264	0.032	0.570	0.649
Married before age 20	0.447	0.023	773	747	1.290	0.051	0.402	0.493
Had first sexual intercourse before age 18	0.195	0.013	773	747	0.939	0.068	0.169	0.222
Currently pregnant	0.044	0.006	969	935	0.844	0.125	0.033	0.055
Children ever born	2.159	0.103	969	935	1.382	0.048	1.953	2.366
Children surviving	1.917	0.085	969	935	1.325	0.044	1.747	2.087
Children ever born to women age 40-49	4.809	0.264	211	209	1.520	0.055	4.281	5.338
Knows any contraceptive method	1.000	0.000	578	569	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	578	569	na	0.000	1.000	1.000
Currently using any method	0.520	0.027	578	569	1.294	0.051	0.467	0.574
Currently using a modern method	0.396	0.026	578	569	1.280	0.065	0.344	0.447
Currently using pill	0.155	0.021	578	569	1.405	0.135	0.113	0.197
Currently using condoms	0.023	0.007	578	569	1.070	0.284	0.010	0.037
Want no more children	0.516	0.023	578	569	1.104	0.044	0.471	0.562
Want to delay birth at least 2 years	0.255	0.020	578	569	1.092	0.077	0.216	0.294
Mothers received medical assistance at delivery	0.477	0.060	427	432	2.220	0.126	0.357	0.597
Having diarrhea in the last 2 weeks	0.180	0.026	407	413	1.228	0.144	0.128	0.231
Treated with ORS or pre-packed liquid	0.274	0.056	67	74	1.076	0.204	0.162	0.385
Consulted medical personnel for diarrhea	0.487	0.074	67	74	1.237	0.151	0.340	0.635
Vaccination card seen	0.804	0.057	71	69	1.210	0.071	0.689	0.919
Received BCG	0.953	0.026	71	69	1.030	0.027	0.901	1.005
Received DPT (3 doses)	0.767	0.071	71	69	1.332	0.092	0.626	0.909
Received polio (3 doses)	0.767	0.071	71	69	1.332	0.092	0.626	0.909
Received measles	0.779	0.070	71	69	1.337	0.090	0.639	0.919
Fully immunized	0.746	0.073	71	69	1.341	0.098	0.601	0.892
Height-for-age (below -2SD)	0.499	0.041	217	222	1.080	0.081	0.418	0.580
Weight-for-height (below -2SD)	0.115	0.019	217	222	0.879	0.163	0.078	0.153
Weight-for-age (below -2SD)	0.344	0.035	217	222	1.047	0.102	0.274	0.414
Total fertility rate (last 3 years)	3.177	0.253	2707	2598	1.318	0.080	2.671	3.683
Neonatal mortality (last 0-9 years)	29.143	6.240	837	846	1.031	0.214	16.663	41.623
Post-neonatal mortality (last 0-9 years)	27.477	6.618	840	851	1.124	0.241	14.241	40.712
Infant mortality (last 0-9 years)	56.620	7.178	837	846	0.897	0.127	42.264	70.975
Child mortality (last 0-9 years)	11.316	4.613	852	865	1.070	0.408	2.091	20.541
Under-five mortality (last 0-9 years)	67.295	7.464	844	853	0.869	0.111	52.366	82.224
			MEN					
Urban residence	0.065	0.006	407	390	0.530	0.100	0.052	0.078
No schooling	0.110	0.026	407	390	1.663	0.236	0.057	0.163
Secondary or higher education	0.353	0.043	407	390	1.807	0.122	0.265	0.441
Never married (never in union)	0.410	0.026	407	390	1.057	0.063	0.357	0.463
Currently married (in union)	0.572	0.027	407	390	1.087	0.047	0.518	0.627
Married before age 20	0.218	0.028	309	296	1.179	0.127	0.161	0.275
Had first sexual intercourse before age 18	0.058	0.014	309	296	1.073	0.247	0.029	0.087

Table B.10 Sampling errors: Kandal sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.155	0.010	992	1920	0.908	0.067	0.134	0.175
No schooling	0.094	0.011	992	1920	1.240	0.121	0.071	0.117
Secondary or higher education	0.413	0.033	992	1920	2.111	0.079	0.348	0.479
Never married (never in union)	0.346	0.021	992	1920	1.401	0.061	0.304	0.388
Currently married (in union)	0.578	0.022	992	1920	1.395	0.038	0.534	0.621
Married before age 20	0.406	0.023	780	1503	1.334	0.057	0.359	0.452
Had first sexual intercourse before age 18	0.161	0.015	780	1503	1.180	0.095	0.131	0.192
Currently pregnant	0.033	0.006	992	1920	1.012	0.171	0.022	0.045
Children ever born	1.941	0.088	992	1920	1.294	0.045	1.765	2.117
Children surviving	1.757	0.079	992	1920	1.306	0.045	1.599	1.914
Children ever born to women age 40-49	4.023	0.187	239	472	1.216	0.047	3.649	4.398
Knows any contraceptive method	1.000	0.000	562	1109	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	562	1109	na	0.000	1.000	1.000
Currently using any method	0.618	0.028	562	1109	1.385	0.046	0.562	0.674
Currently using a modern method	0.380	0.030	562	1109	1.501	0.080	0.319	0.441
Currently using pill	0.135	0.020	562	1109	1.433	0.152	0.094	0.176
Currently using condoms	0.030	0.006	562	1109	0.906	0.214	0.017	0.043
Want no more children	0.575	0.020	562	1109	0.964	0.035	0.535	0.615
Want to delay birth at least 2 years	0.269	0.019	562	1109	1.030	0.071	0.231	0.307
Mothers received medical assistance at delivery	0.870	0.028	392	809	1.483	0.033	0.813	0.926
Having diarrhea in the last 2 weeks	0.107	0.025	377	775	1.572	0.238	0.056	0.157
Treated with ORS or pre-packed liquid	0.352	0.062	33	83	0.774	0.175	0.229	0.475
Consulted medical personnel for diarrhea	0.729	0.050	33	83	0.722	0.069	0.629	0.829
Vaccination card seen	0.951	0.025	78	161	1.039	0.026	0.901	1.000
Received BCG	0.995	0.005	78	161	0.637	0.005	0.985	1.005
Received DPT (3 doses)	0.859	0.040	78	161	1.030	0.046	0.780	0.938
Received polio (3 doses)	0.848	0.045	78	161	1.142	0.053	0.758	0.939
Received measles	0.804	0.053	78	161	1.158	0.066	0.697	0.911
Fully immunized	0.771	0.056	78	161	1.155	0.072	0.659	0.882
Height-for-age (below -2SD)	0.349	0.038	190	390	1.081	0.108	0.274	0.424
Weight-for-height (below -2SD)	0.099	0.023	190	390	1.029	0.229	0.054	0.145
Weight-for-age (below -2SD)	0.247	0.029	190	390	0.981	0.119	0.188	0.306
Total fertility rate (last 3 years)	2.850	0.246	2752	5300	1.200	0.086	2.357	3.343
Neonatal mortality (last 0-9 years)	33.993	8.699	757	1560	1.134	0.256	16.595	51.392
Post-neonatal mortality (last 0-9 years)	26.904	9.175	754	1558	1.454	0.341	8.554	45.255
Infant mortality (last 0-9 years)	60.898	11.750	758	1561	1.176	0.193	37.398	84.397
Child mortality (last 0-9 years)	8.169	3.194	783	1599	0.979	0.391	1.781	14.558
Under-five mortality (last 0-9 years)	68.570	11.327	761	1565	1.063	0.165	45.916	91.224
			MEN					
Urban residence	0.150	0.018	418	796	1.042	0.121	0.113	0.188
No schooling	0.030	0.009	418	796	1.032	0.288	0.012	0.048
Secondary or higher education	0.595	0.045	418	796	1.854	0.075	0.504	0.687
Never married (never in union)	0.400	0.025	418	796	1.049	0.063	0.349	0.452
Currently married (in union)	0.574	0.022	418	796	0.925	0.039	0.528	0.620
Married before age 20	0.210	0.034	323	615	1.486	0.161	0.141	0.279
Had first sexual intercourse before age 18	0.120	0.023	323	615	1.241	0.187	0.074	0.166

Table B.11 Sampling errors: Kratie sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.121	0.012	937	438	1.108	0.097	0.098	0.144
No schooling	0.205	0.041	937	438	3.126	0.200	0.123	0.287
Secondary or higher education	0.297	0.041	937	438	2.749	0.137	0.215	0.378
Never married (never in union)	0.285	0.020	937	438	1.356	0.070	0.245	0.324
Currently married (in union)	0.656	0.019	937	438	1.229	0.029	0.618	0.694
Married before age 20	0.454	0.023	741	345	1.293	0.052	0.407	0.501
Had first sexual intercourse before age 18	0.175	0.013	741	345	0.973	0.077	0.148	0.202
Currently pregnant	0.071	0.011	937	438	1.285	0.150	0.050	0.093
Children ever born	2.317	0.085	937	438	1.104	0.037	2.146	2.487
Children surviving	1.995	0.062	937	438	0.967	0.031	1.871	2.118
Children ever born to women age 40-49	4.675	0.178	211	99	1.021	0.038	4.319	5.032
Knows any contraceptive method	0.998	0.002	616	287	1.077	0.002	0.994	1.002
Knows any modern contraceptive method	0.996	0.003	616	287	1.054	0.003	0.991	1.001
Currently using any method	0.396	0.028	616	287	1.421	0.070	0.341	0.452
Currently using a modern method	0.239	0.023	616	287	1.343	0.096	0.193	0.285
Currently using pill	0.106	0.017	616	287	1.386	0.161	0.072	0.140
Currently using condoms	0.022	0.005	616	287	0.904	0.239	0.012	0.033
Want no more children	0.591	0.023	616	287	1.186	0.039	0.545	0.638
Want to delay birth at least 2 years	0.190	0.027	616	287	1.691	0.140	0.137	0.243
Mothers received medical assistance at delivery	0.444	0.066	495	246	2.569	0.150	0.311	0.576
Having diarrhea in the last 2 weeks	0.103	0.020	470	233	1.445	0.197	0.062	0.144
Treated with ORS or pre-packed liquid	0.333	0.083	53	24	1.168	0.248	0.168	0.499
Consulted medical personnel for diarrhea	0.515	0.054	53	24	0.745	0.105	0.406	0.623
Vaccination card seen	0.628	0.061	96	46	1.245	0.097	0.507	0.750
Received BCG	0.845	0.054	96	46	1.491	0.064	0.736	0.954
Received DPT (3 doses)	0.739	0.066	96	46	1.485	0.089	0.608	0.871
Received polio (3 doses)	0.739	0.066	96	46	1.485	0.089	0.608	0.871
Received measles	0.739	0.071	96	46	1.606	0.096	0.596	0.881
Fully immunized	0.714	0.081	96	46	1.768	0.113	0.553	0.875
Height-for-age (below -2SD)	0.476	0.036	240	116	1.080	0.076	0.404	0.549
Weight-for-height (below -2SD)	0.071	0.020	240	116	1.253	0.277	0.032	0.111
Weight-for-age (below -2SD)	0.307	0.037	240	116	1.202	0.120	0.233	0.380
Total fertility rate (last 3 years)	3.875	0.319	2621	1225	1.646	0.082	3.237	4.513
Neonatal mortality (last 0-9 years)	46.953	8.056	965	473	1.079	0.172	30.842	63.065
Post-neonatal mortality (last 0-9 years)	29.541	5.075	968	474	0.912	0.172	19.391	39.692
Infant mortality (last 0-9 years)	76.495	8.151	966	473	0.895	0.107	60.192	92.797
Child mortality (last 0-9 years)	10.383	4.383	981	479	1.248	0.422	1.616	19.149
Under-five mortality (last 0-9 years)	86.083	10.111	968	474	1.005	0.117	65.861	106.305
			MEN					
Urban residence	0.112	0.012	413	191	0.785	0.109	0.087	0.136
No schooling	0.093	0.027	413	191	1.909	0.296	0.037	0.148
Secondary or higher education	0.398	0.040	413	191	1.654	0.100	0.316	0.480
Never married (never in union)	0.319	0.016	413	191	0.680	0.049	0.287	0.351
Currently married (in union)	0.661	0.014	413	191	0.622	0.022	0.631	0.690
Married before age 20	0.213	0.026	335	156	1.141	0.120	0.161	0.265
Had first sexual intercourse before age 18	0.098	0.012	335	156	0.758	0.126	0.073	0.123

Table B.12 Sampling errors: Phnom Penh sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.942	0.012	1376	2183	1.876	0.012	0.918	0.965
No schooling	0.042	0.006	1376	2183	1.068	0.136	0.031	0.054
Secondary or higher education	0.629	0.026	1376	2183	1.991	0.041	0.577	0.680
Never married (never in union)	0.435	0.015	1376	2183	1.151	0.035	0.404	0.465
Currently married (in union)	0.503	0.015	1376	2183	1.096	0.029	0.474	0.533
Married before age 20	0.253	0.013	1107	1751	1.011	0.052	0.227	0.279
Had first sexual intercourse before age 18	0.079	0.008	1107	1751	1.022	0.104	0.063	0.096
Currently pregnant	0.034	0.005	1376	2183	1.038	0.148	0.024	0.044
Children ever born	1.181	0.048	1376	2183	1.197	0.041	1.085	1.278
Children surviving	1.138	0.046	1376	2183	1.195	0.040	1.046	1.230
Children ever born to women age 40-49	2.667	0.140	275	432	1.344	0.052	2.388	2.947
Knows any contraceptive method	1.000	0.000	695	1099	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	695	1099	na	0.000	1.000	1.000
Currently using any method	0.564	0.024	695	1099	1.284	0.042	0.516	0.612
Currently using a modern method	0.293	0.023	695	1099	1.332	0.078	0.248	0.339
Currently using pill	0.119	0.015	695	1099	1.211	0.124	0.089	0.148
Currently using condoms	0.064	0.011	695	1099	1.202	0.173	0.042	0.086
Want no more children	0.526	0.021	695	1099	1.141	0.041	0.483	0.568
Want to delay birth at least 2 years	0.266	0.016	695	1099	0.955	0.060	0.234	0.297
Mothers received medical assistance at delivery	0.988	0.005	420	647	0.918	0.005	0.978	0.998
Having diarrhea in the last 2 weeks	0.116	0.016	415	641	1.029	0.138	0.084	0.148
Treated with ORS or pre-packed liquid	0.377	0.066	53	74	0.940	0.175	0.245	0.508
Consulted medical personnel for diarrhea	0.595	0.058	53	74	0.816	0.098	0.479	0.711
Vaccination card seen	0.766	0.045	94	148	1.007	0.059	0.677	0.856
Received BCG	0.966	0.018	94	148	0.986	0.019	0.929	1.002
Received DPT (3 doses)	0.902	0.030	94	148	0.999	0.034	0.841	0.962
Received polio (3 doses)	0.902	0.030	94	148	0.999	0.034	0.841	0.962
Received measles	0.842	0.037	94	148	0.995	0.044	0.768	0.916
Fully immunized	0.842	0.037	94	148	0.995	0.044	0.768	0.916
Height-for-age (below -2SD)	0.251	0.029	204	300	0.940	0.116	0.193	0.310
Weight-for-height (below -2SD)	0.112	0.026	204	300	1.073	0.236	0.059	0.164
Weight-for-age (below -2SD)	0.185	0.028	204	300	0.961	0.153	0.128	0.242
Total fertility rate (last 3 years)	2.011	0.151	3918	6218	1.264	0.075	1.710	2.313
Neonatal mortality (last 0-9 years)	8.343	3.564	778	1210	0.790	0.427	1.214	15.471
Post-neonatal mortality (last 0-9 years)	4.564	2.123	784	1217	0.896	0.465	0.318	8.810
Infant mortality (last 0-9 years)	12.907	4.363	779	1211	0.757	0.338	4.181	21.632
Child mortality (last 0-9 years)	5.490	2.992	786	1221	1.062	0.545	0.000	11.474
Under-five mortality (last 0-9 years)	18.325	5.227	781	1214	0.791	0.285	7.872	28.779
			MEN					
Urban residence	0.943	0.013	592	945	1.354	0.014	0.917	0.969
No schooling	0.022	0.008	592	945	1.329	0.365	0.006	0.038
Secondary or higher education	0.823	0.022	592	945	1.386	0.026	0.778	0.867
Never married (never in union)	0.495	0.025	592	945	1.238	0.051	0.444	0.547
Currently married (in union)	0.490	0.024	592	945	1.162	0.049	0.442	0.538
Married before age 20	0.082	0.012	481	756	0.991	0.152	0.057	0.107
Had first sexual intercourse before age 18	0.028	0.007	481	756	0.966	0.258	0.014	0.043

Table B.13 Sampling errors: Prey Veng sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.034	0.004	874	1341	0.687	0.123	0.026	0.042
No schooling	0.214	0.027	874	1341	1.966	0.126	0.160	0.268
Secondary or higher education	0.243	0.027	874	1341	1.858	0.110	0.190	0.297
Never married (never in union)	0.206	0.018	874	1341	1.357	0.089	0.169	0.243
Currently married (in union)	0.717	0.018	874	1341	1.174	0.025	0.681	0.752
Married before age 20	0.538	0.021	744	1165	1.171	0.039	0.495	0.580
Had first sexual intercourse before age 18	0.297	0.017	744	1165	0.995	0.056	0.264	0.330
Currently pregnant	0.053	0.009	874	1341	1.198	0.169	0.035	0.071
Children ever born	2.155	0.097	874	1341	1.459	0.045	1.960	2.349
Children surviving	1.907	0.082	874	1341	1.420	0.043	1.742	2.071
Children ever born to women age 40-49	3.626	0.168	228	350	1.098	0.046	3.289	3.963
Knows any contraceptive method	1.000	0.000	601	961	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	601	961	na	0.000	1.000	1.000
Currently using any method	0.485	0.028	601	961	1.364	0.057	0.430	0.540
Currently using a modern method	0.413	0.030	601	961	1.483	0.072	0.354	0.472
Currently using pill	0.181	0.033	601	961	2.111	0.182	0.115	0.247
Currently using condoms	0.029	0.008	601	961	1.138	0.267	0.013	0.044
Want no more children	0.583	0.023	601	961	1.138	0.039	0.537	0.628
Want to delay birth at least 2 years	0.281	0.021	601	961	1.154	0.075	0.239	0.323
Mothers received medical assistance at delivery	0.592	0.052	376	614	1.835	0.087	0.489	0.696
Having diarrhea in the last 2 weeks	0.172	0.016	358	585	0.816	0.093	0.140	0.204
Treated with ORS or pre-packed liquid	0.347	0.072	60	100	1.210	0.208	0.203	0.491
Consulted medical personnel for diarrhea	0.707	0.070	60	100	1.224	0.099	0.567	0.846
Vaccination card seen	0.715	0.068	79	135	1.402	0.096	0.578	0.851
Received BCG	0.903	0.043	79	135	1.335	0.047	0.818	0.988
Received DPT (3 doses)	0.847	0.040	79	135	1.035	0.047	0.767	0.928
Received polio (3 doses)	0.847	0.040	79	135	1.035	0.047	0.767	0.928
Received measles	0.762	0.050	79	135	1.088	0.066	0.662	0.862
Fully immunized	0.762	0.050	79	135	1.088	0.066	0.662	0.862
Height-for-age (below -2SD)	0.346	0.038	219	352	1.156	0.109	0.271	0.422
Weight-for-height (below -2SD)	0.109	0.019	219	352	0.909	0.174	0.071	0.147
Weight-for-age (below -2SD)	0.255	0.034	219	352	1.102	0.133	0.187	0.323
Total fertility rate (last 3 years)	3.304	0.229	2486	3822	1.348	0.069	2.846	3.761
Neonatal mortality (last 0-9 years)	34.327	7.253	745	1208	1.187	0.211	19.820	48.834
Post-neonatal mortality (last 0-9 years)	29.515	6.056	750	1214	1.018	0.205	17.402	41.628
Infant mortality (last 0-9 years)	63.842	10.049	746	1210	1.170	0.157	43.745	83.939
Child mortality (last 0-9 years)	10.381	4.558	738	1184	1.170	0.439	1.266	19.496
Under-five mortality (last 0-9 years)	73.561	11.392	748	1213	1.241	0.155	50.777	96.345
			MEN					
Urban residence	0.038	0.006	388	598	0.595	0.152	0.026	0.050
No schooling	0.089	0.021	388	598	1.468	0.239	0.046	0.133
Secondary or higher education	0.457	0.040	388	598	1.570	0.087	0.376	0.538
Never married (never in union)	0.243	0.024	388	598	1.105	0.099	0.194	0.292
Currently married (in union)	0.691	0.028	388	598	1.204	0.041	0.633	0.749
Married before age 20	0.346	0.033	320	505	1.236	0.095	0.279	0.413
Had first sexual intercourse before age 18	0.149	0.026	320	505	1.296	0.174	0.096	0.202

Table B.14 Sampling errors: Pursat sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.061	0.006	847	534	0.721	0.096	0.050	0.073
No schooling	0.167	0.034	847	534	2.673	0.204	0.099	0.235
Secondary or higher education	0.331	0.041	847	534	2.523	0.122	0.250	0.412
Never married (never in union)	0.325	0.018	847	534	1.144	0.056	0.288	0.361
Currently married (in union)	0.615	0.021	847	534	1.276	0.034	0.573	0.658
Married before age 20	0.432	0.034	682	426	1.806	0.079	0.364	0.500
Had first sexual intercourse before age 18	0.200	0.023	682	426	1.522	0.116	0.154	0.246
Currently pregnant	0.058	0.009	847	534	1.116	0.154	0.040	0.075
Children ever born	2.073	0.092	847	534	1.163	0.045	1.888	2.258
Children surviving	1.872	0.084	847	534	1.191	0.045	1.704	2.041
Children ever born to women age 40-49	4.775	0.171	171	103	0.816	0.036	4.434	5.117
Knows any contraceptive method	1.000	0.000	509	328	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	509	328	na	0.000	1.000	1.000
Currently using any method	0.406	0.033	509	328	1.537	0.082	0.340	0.472
Currently using a modern method	0.343	0.035	509	328	1.668	0.102	0.273	0.412
Currently using pill	0.137	0.017	509	328	1.146	0.126	0.103	0.172
Currently using condoms	0.015	0.010	509	328	1.820	0.645	0.000	0.035
Want no more children	0.575	0.033	509	328	1.510	0.057	0.509	0.641
Want to delay birth at least 2 years	0.233	0.025	509	328	1.352	0.108	0.182	0.283
Mothers received medical assistance at delivery	0.739	0.056	416	278	2.342	0.076	0.627	0.850
Having diarrhea in the last 2 weeks	0.192	0.025	398	265	1.158	0.128	0.143	0.241
Treated with ORS or pre-packed liquid	0.610	0.054	71	51	0.938	0.088	0.502	0.717
Consulted medical personnel for diarrhea	0.606	0.067	71	51	1.192	0.111	0.472	0.740
Vaccination card seen	0.662	0.072	83	54	1.395	0.108	0.519	0.805
Received BCG	0.952	0.026	83	54	1.106	0.027	0.901	1.003
Received DPT (3 doses)	0.795	0.043	83	54	0.995	0.055	0.708	0.882
Received polio (3 doses)	0.808	0.045	83	54	1.054	0.056	0.719	0.898
Received measles	0.838	0.045	83	54	1.131	0.054	0.748	0.929
Fully immunized	0.736	0.052	83	54	1.092	0.071	0.631	0.840
Height-for-age (below -2SD)	0.448	0.041	197	130	1.129	0.091	0.366	0.530
Weight-for-height (below -2SD)	0.133	0.035	197	130	1.499	0.262	0.064	0.203
Weight-for-age (below -2SD)	0.305	0.041	197	130	1.208	0.133	0.224	0.386
Total fertility rate (last 3 years)	3.384	0.236	2397	1504	1.019	0.070	2.912	3.856
Neonatal mortality (last 0-9 years)	29.071	6.288	794	536	0.956	0.216	16.494	41.647
Post-neonatal mortality (last 0-9 years)	23.954	8.548	793	535	1.397	0.357	6.857	41.051
Infant mortality (last 0-9 years)	53.025	9.849	795	536	1.097	0.186	33.328	72.722
Child mortality (last 0-9 years)	4.474	2.382	773	524	1.049	0.532	0.000	9.238
Under-five mortality (last 0-9 years)	57.262	9.453	795	536	1.054	0.165	38.355	76.169
			MEN					
Urban residence	0.051	0.007	397	256	0.638	0.138	0.037	0.065
No schooling	0.097	0.033	397	256	2.200	0.339	0.029	0.164
Secondary or higher education	0.431	0.057	397	256	2.283	0.133	0.314	0.548
Never married (never in union)	0.370	0.026	397	256	1.066	0.070	0.317	0.423
Currently married (in union)	0.611	0.026	397	256	1.052	0.042	0.558	0.664
Married before age 20	0.210	0.029	320	203	1.254	0.136	0.151	0.268
Had first sexual intercourse before age 18	0.088	0.018	320	203	1.120	0.202	0.051	0.124

Table B.15 Sampling errors: Siem Reap sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.194	0.019	985	1233	1.560	0.100	0.155	0.233
No schooling	0.213	0.023	985	1233	1.782	0.108	0.167	0.259
Secondary or higher education	0.258	0.026	985	1233	1.860	0.100	0.207	0.309
Never married (never in union)	0.322	0.022	985	1233	1.482	0.068	0.278	0.366
Currently married (in union)	0.612	0.023	985	1233	1.517	0.038	0.565	0.659
Married before age 20	0.390	0.020	783	972	1.163	0.051	0.350	0.430
Had first sexual intercourse before age 18	0.163	0.015	783	972	1.117	0.090	0.134	0.192
Currently pregnant	0.057	0.009	985	1233	1.183	0.152	0.039	0.074
Children ever born	2.059	0.087	985	1233	1.176	0.042	1.886	2.233
Children surviving	1.872	0.077	985	1233	1.168	0.041	1.719	2.025
Children ever born to women age 40-49	4.692	0.182	202	260	1.027	0.039	4.329	5.055
Knows any contraceptive method	1.000	0.000	586	754	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	586	754	na	0.000	1.000	1.000
Currently using any method	0.447	0.042	586	754	2.062	0.094	0.363	0.532
Currently using a modern method	0.330	0.032	586	754	1.666	0.097	0.266	0.394
Currently using pill	0.169	0.025	586	754	1.605	0.146	0.119	0.218
Currently using condoms	0.032	0.010	586	754	1.346	0.303	0.013	0.052
Want no more children	0.568	0.022	586	754	1.108	0.040	0.523	0.613
Want to delay birth at least 2 years	0.236	0.023	586	754	1.325	0.098	0.190	0.283
Mothers received medical assistance at delivery	0.727	0.062	448	580	2.512	0.085	0.603	0.851
Having diarrhea in the last 2 weeks	0.198	0.027	434	563	1.400	0.135	0.145	0.252
Treated with ORS or pre-packed liquid	0.455	0.061	71	112	1.105	0.133	0.334	0.576
Consulted medical personnel for diarrhea	0.526	0.048	71	112	0.871	0.090	0.431	0.621
Vaccination card seen	0.854	0.038	93	120	1.061	0.045	0.778	0.930
Received BCG	0.967	0.017	93	120	0.940	0.018	0.934	1.001
Received DPT (3 doses)	0.942	0.031	93	120	1.290	0.033	0.881	1.004
Received polio (3 doses)	0.942	0.031	93	120	1.290	0.033	0.881	1.004
Received measles	0.905	0.036	93	120	1.209	0.040	0.833	0.977
Fully immunized	0.891	0.037	93	120	1.160	0.041	0.818	0.965
Height-for-age (below -2SD)	0.503	0.032	212	266	0.919	0.064	0.439	0.567
Weight-for-height (below -2SD)	0.123	0.026	212	266	1.099	0.211	0.071	0.174
Weight-for-age (below -2SD)	0.349	0.041	212	266	1.154	0.117	0.267	0.430
Total fertility rate (last 3 years)	3.359	0.276	2757	3444	1.561	0.082	2.807	3.910
Neonatal mortality (last 0-9 years)	28.022	6.903	878	1156	0.955	0.246	14.216	41.829
Post-neonatal mortality (last 0-9 years)	22.010	5.461	885	1163	1.084	0.248	11.088	32.931
Infant mortality (last 0-9 years)	50.032	9.375	881	1160	1.063	0.187	31.283	68.782
Child mortality (last 0-9 years)	10.357	3.329	870	1147	1.005	0.321	3.698	17.015
Under-five mortality (last 0-9 years)	59.871	9.663	884	1165	1.015	0.161	40.545	79.196
			MEN					
Urban residence	0.214	0.026	424	517	1.315	0.122	0.161	0.268
No schooling	0.147	0.024	424	517	1.403	0.164	0.098	0.197
Secondary or higher education	0.367	0.039	424	517	1.680	0.108	0.286	0.447
Never married (never in union)	0.381	0.028	424	517	1.185	0.074	0.324	0.438
Currently married (in union)	0.594	0.029	424	517	1.211	0.049	0.535	0.654
Married before age 20	0.183	0.024	343	415	1.153	0.132	0.134	0.232
Had first sexual intercourse before age 18	0.095	0.015	343	415	0.927	0.155	0.065	0.125

Table B.16 Sampling errors: Svay Rieng sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.032	0.003	991	753	0.489	0.085	0.026	0.037
No schooling	0.207	0.023	991	753	1.836	0.113	0.160	0.254
Secondary or higher education	0.296	0.028	991	753	1.979	0.096	0.239	0.352
Never married (never in union)	0.249	0.018	991	753	1.331	0.073	0.213	0.285
Currently married (in union)	0.671	0.019	991	753	1.288	0.028	0.633	0.709
Married before age 20	0.552	0.017	804	614	0.953	0.030	0.519	0.585
Had first sexual intercourse before age 18	0.239	0.016	804	614	1.067	0.067	0.207	0.270
Currently pregnant	0.042	0.006	991	753	0.983	0.148	0.029	0.054
Children ever born	2.129	0.082	991	753	1.265	0.039	1.964	2.293
Children surviving	1.875	0.067	991	753	1.192	0.036	1.740	2.009
Children ever born to women age 40-49	3.809	0.175	290	233	1.366	0.046	3.459	4.159
Knows any contraceptive method	1.000	0.000	657	505	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	657	505	na	0.000	1.000	1.000
Currently using any method	0.505	0.024	657	505	1.218	0.047	0.458	0.552
Currently using a modern method	0.355	0.027	657	505	1.443	0.075	0.302	0.409
Currently using pill	0.148	0.018	657	505	1.334	0.124	0.112	0.185
Currently using condoms	0.006	0.003	657	505	0.910	0.438	0.001	0.012
Want no more children	0.664	0.021	657	505	1.174	0.032	0.621	0.707
Want to delay birth at least 2 years	0.213	0.017	657	505	1.069	0.079	0.179	0.247
Mothers received medical assistance at delivery	0.896	0.024	364	280	1.324	0.027	0.847	0.944
Having diarrhea in the last 2 weeks	0.219	0.022	345	264	0.987	0.102	0.175	0.264
Treated with ORS or pre-packed liquid	0.397	0.061	71	58	1.039	0.153	0.275	0.518
Consulted medical personnel for diarrhea	0.652	0.076	71	58	1.360	0.116	0.501	0.803
Vaccination card seen	0.810	0.045	75	58	1.007	0.056	0.719	0.900
Received BCG	0.929	0.032	75	58	1.103	0.035	0.864	0.994
Received DPT (3 doses)	0.823	0.040	75	58	0.911	0.048	0.744	0.903
Received polio (3 doses)	0.823	0.040	75	58	0.911	0.048	0.744	0.903
Received measles	0.813	0.061	75	58	1.365	0.075	0.691	0.935
Fully immunized	0.753	0.057	75	58	1.164	0.076	0.638	0.868
Height-for-age (below -2SD)	0.312	0.046	181	138	1.262	0.146	0.221	0.404
Weight-for-height (below -2SD)	0.122	0.026	181	138	1.120	0.216	0.070	0.175
Weight-for-age (below -2SD)	0.297	0.045	181	138	1.255	0.151	0.207	0.386
Total fertility rate (last 3 years)	2.584	0.184	2752	2095	1.089	0.071	2.215	2.952
Neonatal mortality (last 0-9 years)	26.694	5.758	742	582	1.002	0.216	15.177	38.211
Post-neonatal mortality (last 0-9 years)	50.985	8.243	740	581	0.929	0.162	34.498	67.471
Infant mortality (last 0-9 years)	77.679	7.880	744	584	0.762	0.101	61.919	93.438
Child mortality (last 0-9 years)	16.449	6.244	753	588	1.305	0.380	3.962	28.937
Under-five mortality (last 0-9 years)	92.850	7.706	746	586	0.700	0.083	77.438	108.262
			MEN					
Urban residence	0.029	0.005	425	331	0.651	0.182	0.019	0.040
No schooling	0.068	0.014	425	331	1.130	0.203	0.040	0.096
Secondary or higher education	0.476	0.035	425	331	1.459	0.074	0.404	0.549
Never married (never in union)	0.319	0.028	425	331	1.234	0.088	0.262	0.376
Currently married (in union)	0.646	0.031	425	331	1.325	0.048	0.583	0.709
Married before age 20	0.310	0.034	333	261	1.346	0.110	0.240	0.380
Had first sexual intercourse before age 18	0.095	0.024	333	261	1.500	0.255	0.045	0.144

Table B.17 Sampling errors: Takeo sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.015	0.001	901	1175	0.297	0.080	0.013	0.017
No schooling	0.115	0.018	901	1175	1.724	0.158	0.079	0.151
Secondary or higher education	0.336	0.030	901	1175	1.912	0.089	0.277	0.396
Never married (never in union)	0.266	0.016	901	1175	1.128	0.062	0.233	0.299
Currently married (in union)	0.662	0.020	901	1175	1.302	0.031	0.622	0.703
Married before age 20	0.496	0.026	726	955	1.436	0.053	0.443	0.549
Had first sexual intercourse before age 18	0.217	0.018	726	955	1.216	0.085	0.180	0.254
Currently pregnant	0.052	0.010	901	1175	1.340	0.189	0.032	0.071
Children ever born	2.177	0.087	901	1175	1.184	0.040	2.004	2.351
Children surviving	1.920	0.070	901	1175	1.132	0.037	1.779	2.060
Children ever born to women age 40-49	4.163	0.222	229	293	1.398	0.053	3.718	4.607
Knows any contraceptive method	1.000	0.000	590	778	0.282	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	590	778	0.282	0.000	1.000	1.000
Currently using any method	0.472	0.021	590	778	1.045	0.045	0.429	0.514
Currently using a modern method	0.379	0.020	590	778	0.989	0.052	0.340	0.418
Currently using pill	0.193	0.020	590	778	1.215	0.101	0.154	0.232
Currently using condoms	0.023	0.006	590	778	0.940	0.247	0.012	0.035
Want no more children	0.619	0.024	590	778	1.222	0.039	0.570	0.667
Want to delay birth at least 2 years	0.235	0.025	590	778	1.425	0.105	0.186	0.285
Mothers received medical assistance at delivery	0.854	0.025	378	522	1.287	0.030	0.804	0.905
Having diarrhea in the last 2 weeks	0.133	0.020	357	490	1.160	0.153	0.092	0.174
Treated with ORS or pre-packed liquid	0.366	0.068	47	65	0.996	0.185	0.231	0.501
Consulted medical personnel for diarrhea	0.505	0.081	47	65	1.153	0.161	0.342	0.667
Vaccination card seen	0.840	0.045	78	107	1.116	0.054	0.750	0.930
Received BCG	0.971	0.020	78	107	1.076	0.020	0.931	1.011
Received DPT (3 doses)	0.907	0.039	78	107	1.218	0.043	0.830	0.985
Received polio (3 doses)	0.922	0.038	78	107	1.300	0.042	0.846	0.999
Received measles	0.870	0.053	78	107	1.423	0.061	0.765	0.976
Fully immunized	0.840	0.056	78	107	1.390	0.067	0.727	0.952
Height-for-age (below -2SD)	0.413	0.041	189	249	1.174	0.100	0.330	0.495
Weight-for-height (below -2SD)	0.095	0.024	189	249	1.070	0.253	0.047	0.143
Weight-for-age (below -2SD)	0.311	0.042	189	249	1.221	0.134	0.228	0.394
Total fertility rate (last 3 years)	3.076	0.198	2521	3302	1.176	0.064	2.679	3.473
Neonatal mortality (last 0-9 years)	36.621	8.619	755	1028	1.227	0.235	19.383	53.858
Post-neonatal mortality (last 0-9 years)	31.061	6.525	752	1022	0.919	0.210	18.011	44.112
Infant mortality (last 0-9 years)	67.682	11.239	757	1031	1.121	0.166	45.204	90.160
Child mortality (last 0-9 years)	17.265	5.226	794	1063	1.087	0.303	6.813	27.717
Under-five mortality (last 0-9 years)	83.778	12.573	760	1036	1.123	0.150	58.633	108.924
			MEN					
Urban residence	0.014	0.004	399	525	0.609	0.257	0.007	0.021
No schooling	0.034	0.013	399	525	1.397	0.374	0.008	0.060
Secondary or higher education	0.561	0.034	399	525	1.377	0.061	0.491	0.631
Never married (never in union)	0.393	0.029	399	525	1.197	0.075	0.334	0.453
Currently married (in union)	0.585	0.027	399	525	1.082	0.046	0.530	0.639
Married before age 20	0.303	0.039	276	365	1.414	0.130	0.222	0.383
Had first sexual intercourse before age 18	0.130	0.024	276	365	1.177	0.184	0.081	0.179

Table B.18 Sampling errors: Otdar Mean Chey sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.095	0.006	947	252	0.628	0.062	0.083	0.107
No schooling	0.253	0.025	947	252	1.762	0.097	0.204	0.303
Secondary or higher education	0.257	0.032	947	252	2.237	0.123	0.194	0.320
Never married (never in union)	0.351	0.014	947	252	0.940	0.041	0.322	0.380
Currently married (in union)	0.609	0.016	947	252	1.012	0.026	0.578	0.641
Married before age 20	0.457	0.020	698	184	1.084	0.044	0.417	0.498
Had first sexual intercourse before age 18	0.184	0.021	698	184	1.475	0.117	0.141	0.226
Currently pregnant	0.049	0.009	947	252	1.298	0.184	0.031	0.067
Children ever born	1.899	0.071	947	252	1.028	0.037	1.757	2.041
Children surviving	1.788	0.065	947	252	1.010	0.036	1.659	1.918
Children ever born to women age 40-49	4.648	0.169	188	47	1.162	0.036	4.311	4.986
Knows any contraceptive method	1.000	0.000	583	154	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	583	154	na	0.000	1.000	1.000
Currently using any method	0.472	0.035	583	154	1.707	0.074	0.402	0.542
Currently using a modern method	0.439	0.034	583	154	1.674	0.078	0.371	0.507
Currently using pill	0.257	0.033	583	154	1.818	0.127	0.192	0.323
Currently using condoms	0.020	0.010	583	154	1.676	0.481	0.001	0.039
Want no more children	0.544	0.024	583	154	1.198	0.045	0.495	0.593
Want to delay birth at least 2 years	0.244	0.025	583	154	1.420	0.103	0.194	0.294
Mothers received medical assistance at delivery	0.644	0.066	395	105	2.386	0.102	0.512	0.776
Having diarrhea in the last 2 weeks	0.090	0.018	378	101	1.205	0.196	0.054	0.125
Treated with ORS or pre-packed liquid	0.636	0.091	37	9	1.115	0.144	0.453	0.818
Consulted medical personnel for diarrhea	0.678	0.071	37	9	0.896	0.105	0.536	0.820
Vaccination card seen	0.845	0.047	73	21	1.149	0.055	0.752	0.938
Received BCG	0.935	0.033	73	21	1.188	0.035	0.869	1.000
Received DPT (3 doses)	0.881	0.038	73	21	1.039	0.043	0.806	0.957
Received polio (3 doses)	0.881	0.038	73	21	1.039	0.043	0.806	0.957
Received measles	0.833	0.063	73	21	1.512	0.076	0.706	0.960
Fully immunized	0.776	0.065	73	21	1.380	0.083	0.647	0.906
Height-for-age (below -2SD)	0.396	0.041	178	45	0.963	0.103	0.314	0.477
Weight-for-height (below -2SD)	0.176	0.031	178	45	0.998	0.178	0.113	0.239
Weight-for-age (below -2SD)	0.305	0.045	178	45	1.147	0.147	0.215	0.395
Total fertility rate (last 3 years)	3.153	0.262	2599	690	1.425	0.083	2.630	3.677
Neonatal mortality (last 0-9 years)	20.106	6.070	825	221	1.199	0.302	7.966	32.245
Post-neonatal mortality (last 0-9 years)	22.019	7.092	832	223	1.316	0.322	7.834	36.203
Infant mortality (last 0-9 years)	42.124	9.402	825	221	1.303	0.223	23.320	60.928
Child mortality (last 0-9 years)	4.929	3.267	824	221	1.314	0.663	0.000	11.462
Under-five mortality (last 0-9 years)	46.845	11.188	828	222	1.434	0.239	24.470	69.220
			MEN					
Urban residence	0.092	0.009	459	122	0.677	0.100	0.073	0.110
No schooling	0.115	0.027	459	122	1.802	0.234	0.060	0.170
Secondary or higher education	0.376	0.041	459	122	1.823	0.110	0.291	0.461
Never married (never in union)	0.410	0.026	459	122	1.131	0.063	0.357	0.463
Currently married (in union)	0.559	0.031	459	122	1.353	0.056	0.495	0.624
Married before age 20	0.190	0.024	345	91	1.118	0.124	0.141	0.238
Had first sexual intercourse before age 18	0.029	0.010	345	91	1.061	0.329	0.010	0.049

Table B.19 Sampling errors: Battambang & Pailin sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.186	0.018	879	1320	1.356	0.095	0.151	0.221
No schooling	0.148	0.021	879	1320	1.752	0.141	0.106	0.189
Secondary or higher education	0.378	0.036	879	1320	2.198	0.094	0.307	0.450
Never married (never in union)	0.343	0.023	879	1320	1.433	0.066	0.298	0.389
Currently married (in union)	0.588	0.023	879	1320	1.426	0.040	0.541	0.635
Married before age 20	0.439	0.031	682	1023	1.644	0.071	0.377	0.501
Had first sexual intercourse before age 18	0.185	0.020	682	1023	1.371	0.109	0.145	0.225
Currently pregnant	0.056	0.007	879	1320	0.862	0.119	0.042	0.069
Children ever born	1.922	0.095	879	1320	1.308	0.050	1.731	2.113
Children surviving	1.766	0.083	879	1320	1.265	0.047	1.600	1.931
Children ever born to women age 40-49	4.393	0.191	193	289	1.109	0.044	4.010	4.776
Knows any contraceptive method	1.000	0.000	512	776	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	512	776	na	0.000	1.000	1.000
Currently using any method	0.509	0.035	512	776	1.583	0.068	0.439	0.578
Currently using a modern method	0.365	0.031	512	776	1.490	0.086	0.302	0.428
Currently using pill	0.176	0.019	512	776	1.165	0.110	0.137	0.215
Currently using condoms	0.024	0.007	512	776	1.088	0.305	0.009	0.038
Want no more children	0.509	0.021	512	776	0.974	0.042	0.466	0.551
Want to delay birth at least 2 years	0.241	0.020	512	776	1.072	0.083	0.201	0.281
Mothers received medical assistance at delivery	0.781	0.047	376	575	2.016	0.061	0.686	0.876
Having diarrhea in the last 2 weeks	0.172	0.028	358	545	1.392	0.161	0.117	0.228
Treated with ORS or pre-packed liquid	0.328	0.079	60	94	1.300	0.242	0.169	0.487
Consulted medical personnel for diarrhea	0.520	0.087	60	94	1.328	0.168	0.345	0.694
Vaccination card seen	0.713	0.067	80	124	1.305	0.094	0.578	0.847
Received BCG	0.940	0.029	80	124	1.110	0.031	0.883	0.998
Received DPT (3 doses)	0.851	0.044	80	124	1.053	0.052	0.762	0.939
Received polio (3 doses)	0.851	0.044	80	124	1.053	0.052	0.762	0.939
Received measles	0.825	0.049	80	124	1.113	0.060	0.726	0.924
Fully immunized	0.788	0.051	80	124	1.083	0.065	0.686	0.890
Height-for-age (below -2SD)	0.265	0.049	182	274	1.444	0.186	0.167	0.364
Weight-for-height (below -2SD)	0.144	0.030	182	274	1.162	0.209	0.084	0.204
Weight-for-age (below -2SD)	0.223	0.031	182	274	1.045	0.139	0.161	0.285
Total fertility rate (last 3 years)	3.209	0.232	2451	3672	1.128	0.072	2.746	3.673
Neonatal mortality (last 0-9 years)	27.854	6.851	728	1105	1.139	0.246	14.153	41.556
Post-neonatal mortality (last 0-9 years)	16.888	4.595	727	1104	0.902	0.272	7.698	26.077
Infant mortality (last 0-9 years)	44.742	9.457	728	1105	1.204	0.211	25.829	63.655
Child mortality (last 0-9 years)	9.615	3.571	714	1092	0.950	0.371	2.473	16.757
Under-five mortality (last 0-9 years)	53.927	9.323	729	1106	1.082	0.173	35.280	72.573
			MEN					
Urban residence	0.166	0.014	390	603	0.759	0.086	0.137	0.195
No schooling	0.022	0.009	390	603	1.263	0.429	0.003	0.041
Secondary or higher education	0.575	0.041	390	603	1.617	0.071	0.492	0.659
Never married (never in union)	0.483	0.033	390	603	1.303	0.068	0.415	0.550
Currently married (in union)	0.493	0.031	390	603	1.231	0.063	0.429	0.557
Married before age 20	0.161	0.028	281	430	1.293	0.176	0.103	0.219
Had first sexual intercourse before age 18	0.040	0.015	281	430	1.279	0.377	0.009	0.070

Table B.20 Sampling errors: Kampot & Kep sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.085	0.006	910	891	0.658	0.071	0.073	0.097
No schooling	0.111	0.019	910	891	1.840	0.172	0.073	0.148
Secondary or higher education	0.358	0.030	910	891	1.919	0.084	0.297	0.418
Never married (never in union)	0.284	0.019	910	891	1.304	0.068	0.245	0.323
Currently married (in union)	0.638	0.022	910	891	1.421	0.035	0.593	0.683
Married before age 20	0.517	0.031	718	702	1.683	0.060	0.455	0.579
Had first sexual intercourse before age 18	0.176	0.015	718	702	1.066	0.085	0.146	0.206
Currently pregnant	0.047	0.005	910	891	0.729	0.108	0.037	0.057
Children ever born	2.011	0.078	910	891	1.143	0.039	1.855	2.168
Children surviving	1.837	0.070	910	891	1.140	0.038	1.697	1.978
Children ever born to women age 40-49	4.067	0.214	235	227	1.461	0.053	3.638	4.495
Knows any contraceptive method	1.000	0.000	569	568	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	569	568	na	0.000	1.000	1.000
Currently using any method	0.528	0.020	569	568	0.978	0.038	0.487	0.568
Currently using a modern method	0.333	0.022	569	568	1.130	0.066	0.289	0.378
Currently using pill	0.125	0.019	569	568	1.350	0.149	0.087	0.162
Currently using condoms	0.010	0.004	569	568	0.994	0.405	0.002	0.019
Want no more children	0.625	0.030	569	568	1.508	0.049	0.564	0.686
Want to delay birth at least 2 years	0.246	0.026	569	568	1.476	0.108	0.193	0.298
Mothers received medical assistance at delivery	0.665	0.056	352	365	2.068	0.085	0.552	0.778
Having diarrhea in the last 2 weeks	0.131	0.015	333	344	0.763	0.118	0.100	0.162
Treated with ORS or pre-packed liquid	0.203	0.058	43	45	1.029	0.288	0.086	0.319
Consulted medical personnel for diarrhea	0.437	0.084	43	45	1.115	0.191	0.270	0.604
Vaccination card seen	0.732	0.068	69	65	1.250	0.092	0.597	0.867
Received BCG	0.877	0.064	69	65	1.595	0.073	0.748	1.005
Received DPT (3 doses)	0.643	0.077	69	65	1.323	0.120	0.488	0.798
Received polio (3 doses)	0.649	0.078	69	65	1.330	0.120	0.494	0.804
Received measles	0.650	0.075	69	65	1.287	0.115	0.500	0.800
Fully immunized	0.574	0.078	69	65	1.288	0.135	0.419	0.730
Height-for-age (below -2SD)	0.434	0.047	174	169	1.270	0.109	0.340	0.529
Weight-for-height (below -2SD)	0.089	0.024	174	169	1.053	0.268	0.041	0.137
Weight-for-age (below -2SD)	0.299	0.040	174	169	1.140	0.133	0.220	0.378
Total fertility rate (last 3 years)	2.807	0.151	2541	2481	0.857	0.054	2.505	3.108
Neonatal mortality (last 0-9 years)	44.197	10.563	703	725	1.244	0.239	23.070	65.323
Post-neonatal mortality (last 0-9 years)	15.860	4.024	708	728	0.936	0.254	7.813	23.907
Infant mortality (last 0-9 years)	60.057	11.651	706	727	1.198	0.194	36.754	83.359
Child mortality (last 0-9 years)	13.769	5.745	720	742	1.295	0.417	2.279	25.259
Under-five mortality (last 0-9 years)	72.999	12.521	706	727	1.147	0.172	47.957	98.040
			MEN					
Urban residence	0.091	0.009	381	362	0.597	0.097	0.073	0.109
No schooling	0.056	0.010	381	362	0.884	0.187	0.034	0.077
Secondary or higher education	0.482	0.032	381	362	1.228	0.065	0.417	0.546
Never married (never in union)	0.359	0.028	381	362	1.119	0.077	0.303	0.415
Currently married (in union)	0.586	0.026	381	362	1.021	0.044	0.533	0.638
Married before age 20	0.248	0.035	285	275	1.382	0.143	0.176	0.321
Had first sexual intercourse before age 18	0.074	0.016	285	275	1.031	0.216	0.041	0.107

Table B.21 Sampling errors: Preah Sihanouk & Koh Kong sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.357	0.030	1088	439	2.107	0.085	0.296	0.417
No schooling	0.240	0.031	1088	439	2.434	0.130	0.178	0.303
Secondary or higher education	0.352	0.028	1088	439	1.924	0.078	0.297	0.407
Never married (never in union)	0.325	0.019	1088	439	1.329	0.058	0.287	0.362
Currently married (in union)	0.604	0.019	1088	439	1.281	0.031	0.566	0.641
Married before age 20	0.439	0.023	853	341	1.346	0.052	0.394	0.485
Had first sexual intercourse before age 18	0.154	0.015	853	341	1.258	0.100	0.123	0.185
Currently pregnant	0.050	0.008	1088	439	1.263	0.165	0.034	0.067
Children ever born	1.948	0.064	1088	439	0.983	0.033	1.821	2.076
Children surviving	1.751	0.056	1088	439	0.982	0.032	1.640	1.862
Children ever born to women age 40-49	4.223	0.160	241	96	1.124	0.038	3.903	4.544
Knows any contraceptive method	0.996	0.003	653	265	1.094	0.003	0.991	1.001
Knows any modern contraceptive method	0.996	0.003	653	265	1.094	0.003	0.991	1.001
Currently using any method	0.512	0.028	653	265	1.426	0.054	0.457	0.568
Currently using a modern method	0.343	0.023	653	265	1.266	0.068	0.297	0.390
Currently using pill	0.144	0.019	653	265	1.358	0.128	0.107	0.181
Currently using condoms	0.039	0.007	653	265	0.998	0.193	0.024	0.054
Want no more children	0.541	0.016	653	265	0.850	0.030	0.508	0.574
Want to delay birth at least 2 years	0.279	0.015	653	265	0.848	0.053	0.250	0.309
Mothers received medical assistance at delivery	0.792	0.046	434	181	2.127	0.059	0.699	0.885
Having diarrhea in the last 2 weeks	0.174	0.028	410	169	1.417	0.160	0.119	0.230
Treated with ORS or pre-packed liquid	0.445	0.055	72	30	0.899	0.123	0.335	0.555
Consulted medical personnel for diarrhea	0.661	0.059	72	30	1.037	0.090	0.543	0.780
Vaccination card seen	0.604	0.049	96	38	0.975	0.082	0.505	0.703
Received BCG	0.922	0.037	96	38	1.348	0.040	0.848	0.996
Received DPT (3 doses)	0.775	0.053	96	38	1.235	0.068	0.669	0.881
Received polio (3 doses)	0.775	0.053	96	38	1.235	0.068	0.669	0.881
Received measles	0.804	0.049	96	38	1.199	0.061	0.707	0.902
Fully immunized	0.742	0.055	96	38	1.223	0.074	0.633	0.852
Height-for-age (below -2SD)	0.418	0.040	212	85	1.246	0.097	0.337	0.499
Weight-for-height (below -2SD)	0.091	0.027	212	85	1.406	0.297	0.037	0.145
Weight-for-age (below -2SD)	0.218	0.032	212	85	1.173	0.145	0.155	0.281
Total fertility rate (last 3 years)	2.860	0.170	3049	1224	1.064	0.059	2.521	3.199
Neonatal mortality (last 0-9 years)	19.994	6.208	851	359	1.158	0.310	7.578	32.411
Post-neonatal mortality (last 0-9 years)	29.998	7.141	847	357	1.027	0.238	15.715	44.280
Infant mortality (last 0-9 years)	49.992	8.613	851	359	0.997	0.172	32.766	67.218
Child mortality (last 0-9 years)	13.875	4.275	855	360	1.072	0.308	5.326	22.425
Under-five mortality (last 0-9 years)	63.174	9.172	853	360	0.982	0.145	44.829	81.518
			MEN					
Urban residence	0.375	0.030	526	203	1.432	0.081	0.313	0.437
No schooling	0.119	0.018	526	203	1.306	0.156	0.081	0.156
Secondary or higher education	0.488	0.034	526	203	1.561	0.070	0.419	0.558
Never married (never in union)	0.430	0.023	526	203	1.060	0.053	0.383	0.477
Currently married (in union)	0.558	0.024	526	203	1.117	0.043	0.508	0.607
Married before age 20	0.145	0.021	419	163	1.190	0.141	0.103	0.187
Had first sexual intercourse before age 18	0.026	0.008	419	163	0.991	0.297	0.010	0.042

Table B.22 Sampling errors: Preah Vihear & Steung Tre sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.125	0.017	1054	430	1.722	0.139	0.090	0.159
No schooling	0.266	0.031	1054	430	2.315	0.117	0.204	0.329
Secondary or higher education	0.225	0.037	1054	430	2.859	0.163	0.152	0.298
Never married (never in union)	0.331	0.021	1054	430	1.497	0.065	0.288	0.374
Currently married (in union)	0.607	0.022	1054	430	1.483	0.036	0.563	0.652
Married before age 20	0.478	0.025	814	328	1.434	0.052	0.428	0.528
Had first sexual intercourse before age 18	0.239	0.023	814	328	1.530	0.095	0.194	0.285
Currently pregnant	0.067	0.011	1054	430	1.473	0.168	0.044	0.089
Children ever born	2.148	0.100	1054	430	1.338	0.047	1.948	2.348
Children surviving	1.839	0.082	1054	430	1.311	0.044	1.676	2.003
Children ever born to women age 40-49	4.782	0.255	192	74	1.249	0.053	4.272	5.292
Knows any contraceptive method	0.970	0.009	643	261	1.334	0.009	0.953	0.988
Knows any modern contraceptive method	0.967	0.010	643	261	1.374	0.010	0.948	0.987
Currently using any method	0.373	0.040	643	261	2.103	0.107	0.294	0.453
Currently using a modern method	0.323	0.040	643	261	2.187	0.124	0.243	0.403
Currently using pill	0.132	0.030	643	261	2.248	0.226	0.072	0.191
Currently using condoms	0.017	0.006	643	261	1.088	0.323	0.006	0.028
Want no more children	0.491	0.020	643	261	1.047	0.042	0.450	0.532
Want to delay birth at least 2 years	0.141	0.025	643	261	1.822	0.176	0.091	0.191
Mothers received medical assistance at delivery	0.282	0.057	542	226	2.571	0.202	0.168	0.396
Having diarrhea in the last 2 weeks	0.093	0.022	510	211	1.660	0.236	0.049	0.137
Treated with ORS or pre-packed liquid	0.240	0.075	45	20	1.216	0.313	0.090	0.391
Consulted medical personnel for diarrhea	0.591	0.119	45	20	1.624	0.201	0.353	0.828
Vaccination card seen	0.551	0.056	95	39	1.120	0.103	0.438	0.664
Received BCG	0.935	0.023	95	39	0.911	0.024	0.889	0.980
Received DPT (3 doses)	0.770	0.071	95	39	1.666	0.092	0.628	0.913
Received polio (3 doses)	0.755	0.071	95	39	1.620	0.094	0.613	0.896
Received measles	0.706	0.070	95	39	1.506	0.099	0.566	0.845
Fully immunized	0.657	0.075	95	39	1.547	0.114	0.508	0.806
Height-for-age (below -2SD)	0.564	0.034	254	105	1.151	0.060	0.497	0.631
Weight-for-height (below -2SD)	0.080	0.016	254	105	0.963	0.201	0.048	0.112
Weight-for-age (below -2SD)	0.368	0.035	254	105	1.119	0.095	0.298	0.438
Total fertility rate (last 3 years)	3.500	0.315	2937	1195	1.786	0.090	2.871	4.129
Neonatal mortality (last 0-9 years)	29.210	5.904	1056	454	1.134	0.202	17.403	41.018
Post-neonatal mortality (last 0-9 years)	65.308	19.477	1057	454	1.987	0.298	26.354	104.262
Infant mortality (last 0-9 years)	94.519	22.273	1057	454	2.033	0.236	49.974	139.064
Child mortality (last 0-9 years)	25.658	6.490	1063	459	1.140	0.253	12.679	38.637
Under-five mortality (last 0-9 years)	117.751	22.803	1059	455	1.856	0.194	72.145	163.358
			MEN					
Urban residence	0.129	0.019	476	193	1.212	0.145	0.091	0.167
No schooling	0.149	0.026	476	193	1.599	0.176	0.095	0.202
Secondary or higher education	0.284	0.042	476	193	2.034	0.149	0.197	0.370
Never married (never in union)	0.430	0.029	476	193	1.263	0.067	0.371	0.489
Currently married (in union)	0.558	0.029	476	193	1.259	0.051	0.500	0.617
Married before age 20	0.203	0.040	358	145	1.862	0.196	0.121	0.284
Had first sexual intercourse before age 18	0.071	0.018	358	145	1.354	0.259	0.033	0.109

Table B.23 Sampling errors: Mondol Kiri & Rattanak Ki sample, Cambodia DHS 2010

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.105	0.013	1086	281	1.364	0.120	0.080	0.130
No schooling	0.462	0.050	1086	281	3.328	0.108	0.362	0.562
Secondary or higher education	0.161	0.023	1086	281	2.051	0.141	0.115	0.206
Never married (never in union)	0.237	0.014	1086	281	1.080	0.058	0.210	0.265
Currently married (in union)	0.700	0.014	1086	281	1.037	0.020	0.672	0.729
Married before age 20	0.593	0.023	818	213	1.326	0.038	0.548	0.638
Had first sexual intercourse before age 18	0.322	0.030	818	213	1.851	0.093	0.262	0.382
Currently pregnant	0.062	0.009	1086	281	1.247	0.145	0.044	0.081
Children ever born	2.732	0.092	1086	281	1.114	0.034	2.548	2.917
Children surviving	2.279	0.063	1086	281	0.935	0.028	2.152	2.406
Children ever born to women age 40-49	5.684	0.221	239	66	1.264	0.039	5.242	6.125
Knows any contraceptive method	0.967	0.016	744	197	2.438	0.016	0.935	0.999
Knows any modern contraceptive method	0.963	0.019	744	197	2.756	0.020	0.925	1.001
Currently using any method	0.431	0.044	744	197	2.433	0.102	0.343	0.519
Currently using a modern method	0.327	0.037	744	197	2.140	0.112	0.254	0.400
Currently using pill	0.161	0.022	744	197	1.628	0.135	0.118	0.205
Currently using condoms	0.006	0.003	744	197	0.993	0.483	0.000	0.011
Want no more children	0.572	0.024	744	197	1.322	0.042	0.524	0.619
Want to delay birth at least 2 years	0.282	0.024	744	197	1.465	0.085	0.234	0.329
Mothers received medical assistance at delivery	0.384	0.062	656	171	2.736	0.161	0.260	0.508
Having diarrhea in the last 2 weeks	0.244	0.017	602	157	0.908	0.071	0.209	0.279
Treated with ORS or pre-packed liquid	0.430	0.048	148	38	1.086	0.111	0.334	0.526
Consulted medical personnel for diarrhea	0.585	0.035	148	38	0.816	0.059	0.515	0.654
Vaccination card seen	0.410	0.058	128	33	1.332	0.142	0.294	0.526
Received BCG	0.689	0.066	128	33	1.596	0.095	0.558	0.820
Received DPT (3 doses)	0.400	0.051	128	33	1.173	0.127	0.298	0.502
Received polio (3 doses)	0.393	0.051	128	33	1.179	0.130	0.290	0.495
Received measles	0.443	0.068	128	33	1.551	0.154	0.307	0.580
Fully immunized	0.284	0.048	128	33	1.201	0.169	0.188	0.380
Height-for-age (below -2SD)	0.549	0.042	293	74	1.419	0.076	0.465	0.634
Weight-for-height (below -2SD)	0.103	0.016	293	74	0.920	0.151	0.072	0.134
Weight-for-age (below -2SD)	0.343	0.036	293	74	1.323	0.104	0.272	0.414
Total fertility rate (last 3 years)	4.521	0.343	2966	768	1.588	0.076	3.834	5.207
Neonatal mortality (last 0-9 years)	29.582	4.725	1267	340	1.001	0.160	20.132	39.032
Post-neonatal mortality (last 0-9 years)	52.615	9.850	1272	341	1.376	0.187	32.916	72.315
Infant mortality (last 0-9 years)	82.197	11.612	1267	340	1.384	0.141	58.974	105.421
Child mortality (last 0-9 years)	26.021	6.048	1286	346	1.171	0.232	13.925	38.116
Under-five mortality (last 0-9 years)	106.079	11.630	1275	342	1.245	0.110	82.819	129.339
			MEN					
Urban residence	0.098	0.012	490	132	0.921	0.127	0.072	0.123
No schooling	0.222	0.036	490	132	1.911	0.162	0.149	0.296
Secondary or higher education	0.280	0.039	490	132	1.908	0.139	0.201	0.359
Never married (never in union)	0.334	0.016	490	132	0.742	0.047	0.301	0.366
Currently married (in union)	0.654	0.018	490	132	0.826	0.027	0.618	0.690
Married before age 20	0.260	0.040	372	100	1.735	0.152	0.180	0.341
Had first sexual intercourse before age 18	0.084	0.020	372	100	1.367	0.235	0.044	0.124

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Cambodia 2010

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	767	2.1	802	2.3	37	415	1.1	324	0.9
1	743	2.0	841	2.5	38	461	1.2	432	1.3
2	830	2.2	856	2.5	39	430	1.2	339	1.0
3	796	2.1	817	2.4	40	511	1.4	461	1.3
4	788	2.1	872	2.5	41	446	1.2	413	1.2
5	771	2.1	864	2.5	42	423	1.1	411	1.2
6	772	2.1	863	2.5	43	438	1.2	369	1.1
7	770	2.1	767	2.2	44	433	1.2	339	1.0
8	823	2.2	818	2.4	45	443	1.2	393	1.1
9	771	2.1	754	2.2	46	435	1.2	354	1.0
10	928	2.5	988	2.9	47	439	1.2	333	1.0
11	773	2.1	776	2.3	48	412	1.1	336	1.0
12	816	2.2	836	2.4	49	396	1.1	295	0.9
13	885	2.4	914	2.7	50	264	0.7	261	0.8
14	834	2.2	882	2.6	51	425	1.1	250	0.7
15	722	1.9	779	2.3	52	364	1.0	265	0.8
16	786	2.1	891	2.6	53	396	1.1	214	0.6
17	795	2.1	811	2.4	54	295	0.8	180	0.5
18	765	2.1	785	2.3	55	349	0.9	214	0.6
19	628	1.7	647	1.9	56	305	0.8	207	0.6
20	721	1.9	761	2.2	57	290	0.8	172	0.5
21	600	1.6	614	1.8	58	273	0.7	205	0.6
22	626	1.7	670	2.0	59	228	0.6	136	0.4
23	618	1.7	527	1.5	60	302	0.8	218	0.6
24	622	1.7	570	1.7	61	207	0.6	124	0.4
25	627	1.7	597	1.7	62	212	0.6	149	0.4
26	646	1.7	555	1.6	63	219	0.6	127	0.4
27	627	1.7	552	1.6	64	177	0.5	128	0.4
28	673	1.8	606	1.8	65	252	0.7	145	0.4
29	608	1.6	576	1.7	66	139	0.4	98	0.3
30	731	2.0	668	1.9	67	161	0.4	74	0.2
31	565	1.5	533	1.6	68	142	0.4	96	0.3
32	372	1.0	367	1.1	69	93	0.3	69	0.2
33	277	0.7	263	0.8	70+	1,414	3.8	877	2.6
34	278	0.7	299	0.9	DK/missing	2	0.0	1	0.0
35	350	0.9	278	0.8					
36	365	1.0	313	0.9	Total	37,263	100.0	34,318	100.0

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 percentage of eligible women who were interviewed (weighted), by five-year age groups, Cambodia 2010

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percent	
10-14	4,235	na	na	na
15-19	3,697	3,550	19.5	96.0
20-24	3,187	3,086	17.0	96.8
25-29	3,182	3,118	17.2	98.0
30-34	2,224	2,173	12.0	97.7
35-39	2,020	1,967	10.8	97.4
40-44	2,251	2,213	12.2	98.3
45-49	2,126	2,072	11.4	97.5
50-54	1,745	na	na	na
15-49	18,686	18,178	100.0	97.3

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 schedule.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-54, interviewed men age 15-49, and percentage of eligible men who were interviewed (weighted), Cambodia 2010

Age group	Household population of men age 10-54	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percent	
10-14	2,209	na	na	na
15-19	1,869	1,763	22.2	94.3
20-24	1,473	1,369	17.2	92.9
25-29	1,404	1,325	16.7	94.4
30-34	1,037	994	12.5	95.8
35-39	830	789	9.9	95.1
40-44	970	932	11.7	96.1
45-49	818	777	9.8	94.9
50-54	569	na	na	na
15-59	8,402	7,949	100.0	94.6

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 men and interviewed men are household weights. Age is based on the household schedule.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Cambodia 2010

Subject	Percentage with missing information	Number of cases
Month only (births in last 15 years)	0.77	23,823
Month and year (births in last 15 years)	0.05	23,823
Age at death (deceased children born in the last 15 years)	0.03	1,949
Age/date at first union (ever married women)[1]	0.23	12,971
Age/date at first union (ever married men)[1]	0.87	5,058
Respondent's education (all women)	0.01	18,754
Respondent's education (all men)	0.00	8,239
Diarrhea in last two weeks (living children 0-59)	0.68	7,811
Height (living children 0-59 from Household Questionnaire)	2.08	4,174
Weight (living children 0-59 from Household Questionnaire)	1.72	4,174
Height or weight (living children 0-59 from Household Questionnaire)	2.10	4,174
Anemia (living children 6-59 months from Household Questionnaire)	4.33	3,843
Anemia (all women from the Household Questionnaire)	3.77	9,329

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living, dead, and total children (weighted), Cambodia 2010

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2011	1,188	32	1,220	100.0	100.0	100.0	98.2	80.4	97.7	na	na	na
2010	1,631	83	1,714	100.0	100.0	100.0	111.9	184.2	114.5	115.5	154.8	116.9
2009	1,637	76	1,713	100.0	100.0	100.0	99.7	160.1	101.8	102.6	92.9	102.1
2008	1,560	80	1,640	100.0	100.0	100.0	110.6	99.0	110.0	99.2	89.3	98.6
2007	1,509	103	1,612	100.0	100.0	100.0	110.2	98.1	109.4	99.7	139.9	101.6
2006	1,467	67	1,535	100.0	99.0	99.9	101.7	109.3	102.0	94.0	58.9	91.6
2005	1,613	126	1,739	99.3	93.6	98.9	118.7	127.1	119.3	112.6	118.4	113.0
2004	1,397	146	1,542	99.3	91.0	98.5	97.2	168.1	102.2	91.2	104.4	92.3
2003	1,452	153	1,605	99.1	95.8	98.8	95.8	153.0	100.1	105.2	110.7	105.7
2007-2011	6,016	270	6,287	100.0	100.0	100.0	105.3	133.0	106.4	na	na	na
2002-2006	7,437	595	8,033	99.5	95.2	99.2	104.7	133.9	106.6	na	na	na
1997-2001	6,897	845	7,742	99.2	94.7	98.7	106.4	111.9	107.0	na	na	na
1992-1996	6,718	950	7,668	99.0	96.2	98.6	105.1	124.7	107.4	na	na	na
<1992	6,829	1,221	8,050	98.7	96.8	98.4	101.1	117.8	103.5	na	na	na
All	33,897	3,882	37,779	99.3	96.2	98.9	104.5	121.5	106.1	na	na	na

na = Not applicable
[1] Both year and month of birth given
[2] $(B_m/B_f)x100$, where B_m and B_f are the numbers of male and female births, respectively
[3] $[2B_x/(B_{x-1}+B_{x+1})]x100$, 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 age 1 month by age at death in days and the percentage of neonatal deaths reported to occur at age 0-6 days, for five-year periods of birth preceding the survey (weighted), Cambodia 2010

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	79	81	85	57	303
1	45	58	64	51	218
2	18	25	16	20	79
3	13	24	31	33	101
4	7	7	9	6	28
5	12	6	4	5	28
6	3	4	2	5	13
7	11	25	26	36	97
8	1	0	9	1	11
9	1	2	5	4	11
10	4	5	12	3	24
11	0	0	1	1	2
12	0	0	1	2	3
13	3	1	0	0	4
14	2	0	0	6	8
15	8	16	14	14	53
17	0	5	1	0	6
18	3	2	0	7	12
19	0	3	0	0	3
20	6	8	5	5	24
22	0	1	0	0	1
23	0	0	1	0	1
24	0	1	0	0	1
25	0	3	3	2	8
26	0	1	1	0	3
27	1	1	0	0	2
28	0	2	4	4	10
29	0	0	1	1	2
30	2	0	0	1	3
31+	0	2	0	0	2
Total 0-30	220	280	294	264	1,058
Percent early neonatal[1]	80.5	73.2	71.6	66.9	72.7

[1] ≤ 6 days / ≤ 30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under 2 years by age at death in months and the percentage of infant deaths reported to occur at under one month, for five-year periods of birth preceding the survey, Cambodia 2010

	Number of years preceding the survey				Total
Age at death (months)	0-4	5-9	10-14	15-19	0-19
<1[a]	220	280	294	264	1,058
1	29	58	103	65	255
2	30	53	63	56	203
3	28	51	106	62	247
4	14	27	29	21	91
5	11	10	28	14	63
6	5	11	27	24	66
7	8	12	21	24	65
8	5	7	19	21	51
9	2	14	27	20	62
10	4	6	4	15	29
11	2	2	8	4	17
12	9	13	28	33	83
13	0	2	4	3	10
14	0	2	6	3	11
15	1	2	1	9	13
16	0	0	1	6	8
17	1	1	0	3	5
18	0	5	12	7	24
19	0	1	3	2	6
20	0	0	3	2	6
21	0	0	1	1	2
22	0	0	0	1	1
23	2	1	0	1	3
24+	0	0	0	0	0
Missing	1	0	0	0	1
1 Year	3	2	5	12	22
Total 0-11	356	532	729	589	2,206
Percent neonatal[1]	61.8	52.7	40.3	44.8	48.0

[a] Includes deaths under one month reported in days
[1] Under one month / under one year

Table C.7 Nutritional status of children

Percentage of children under 5 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, Cambodia 2010

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	0.5	4.4	(0.3)	0.4	5.2	1.7	(0.2)	0.3	1.5	1.1	(0.3)	281
6-8	2.2	14.1	(0.8)	0.4	9.2	2.6	(0.4)	0.4	10.1	0.4	(1.0)	230
9-11	4.0	17.4	(0.9)	1.7	10.5	2.0	(0.7)	2.4	25.2	0.0	(1.3)	191
12-17	8.9	31.1	(1.4)	1.2	13.7	1.6	(0.9)	6.9	35.5	0.0	(1.7)	409
18-23	10.8	47.6	(1.8)	1.9	14.6	0.7	(1.0)	8.5	40.4	0.2	(1.7)	410
24-35	10.6	31.1	(1.5)	1.7	8.3	0.2	(0.9)	7.2	41.6	0.1	(1.7)	839
36-47	13.0	38.0	(1.7)	1.0	9.6	0.9	(0.9)	6.9	40.3	0.3	(1.7)	760
48-59	17.0	46.9	(2.0)	1.3	7.8	0.3	(0.9)	8.2	42.2	0.1	(1.8)	836
Sex												
Male	10.3	33.0	(1.5)	1.2	9.6	0.8	(0.8)	5.5	33.4	0.1	(1.6)	2,045
Female	11.2	34.9	(1.5)	1.4	9.6	1.0	(0.8)	7.2	37.1	0.3	(1.6)	1,912
Birth interval in months[2]												
First birth[3]	7.9	30.0	(1.4)	1.3	9.9	0.7	(0.8)	4.7	33.5	0.1	(1.5)	1,231
<24	17.8	41.0	(1.7)	1.9	7.3	0.7	(0.8)	8.5	34.9	0.1	(1.6)	361
24-47	10.8	37.1	(1.6)	1.2	10.4	0.6	(0.8)	7.3	37.2	0.4	(1.6)	1,066
48+	9.4	30.2	(1.4)	1.1	10.5	1.7	(0.9)	6.2	33.2	0.4	(1.6)	922
Size at birth[2]												
Very small	17.6	56.6	(2.2)	0.0	13.2	0.0	(1.0)	18.7	49.9	0.0	(2.1)	81
Small	15.8	45.8	(1.8)	3.0	17.7	0.5	(1.0)	13.7	46.4	0.3	(1.9)	277
Average or larger	9.1	30.7	(1.4)	1.2	9.2	1.0	(0.8)	5.0	32.7	0.3	(1.5)	3,111
Missing	19.8	57.9	(2.2)	0.6	7.9	0.0	(1.0)	13.6	49.4	0.0	(2.1)	111
Mother's interview status												
Interviewed	10.2	33.3	(1.5)	1.3	9.9	0.9	(0.8)	6.3	34.7	0.2	(1.6)	3,579
Not interviewed but in household	11.4	41.4	(1.8)	0.0	1.8	0.9	(0.8)	5.7	38.2	0.0	(1.7)	83
Not interviewed, and not in the household[4]	17.6	39.8	(1.6)	1.4	7.6	0.4	(0.9)	7.4	41.1	0.0	(1.7)	294
Mother's nutritional status[5]												
Thin (BMI <18.5)	11.3	38.8	(1.6)	1.8	15.3	0.2	(1.1)	10.4	44.5	0.0	(1.8)	639
Normal (BMI 18.5-24.9)	10.0	32.9	(1.5)	1.2	9.0	0.9	(0.8)	5.7	33.2	0.2	(1.5)	2,606
Overweight/ obese (BMI ≥25)	8.4	25.6	(1.4)	0.5	5.5	2.4	(0.6)	2.2	28.1	0.8	(1.3)	346
Missing	12.5	39.9	(1.9)	0.0	7.8	0.0	(0.8)	10.3	34.8	0.0	(1.7)	62
Residence												
Urban	6.3	22.6	(1.1)	1.6	10.0	2.1	(0.6)	3.1	24.6	0.5	(1.2)	597
Rural	11.5	35.9	(1.6)	1.2	9.5	0.7	(0.9)	6.9	37.1	0.2	(1.6)	3,360
Province												
Banteay Mean Chey	5.4	28.9	(1.3)	0.3	5.5	0.0	(0.7)	4.4	25.1	0.0	(1.4)	175
Kampong Cham	13.1	39.7	(1.7)	0.8	11.7	0.7	(0.9)	5.9	37.0	0.0	(1.7)	476
Kampong Chhnang	13.5	38.7	(1.6)	2.2	9.3	1.0	(0.9)	10.0	36.2	0.0	(1.7)	183
Kampong Speu	12.0	34.7	(1.7)	0.8	7.7	0.0	(1.0)	6.0	45.5	0.6	(1.8)	225
Kampong Thom	13.4	43.6	(1.8)	0.6	8.9	1.0	(0.9)	10.9	42.9	0.0	(1.8)	222
Kandal	5.8	31.3	(1.4)	0.0	9.7	0.9	(0.9)	4.1	31.8	0.4	(1.5)	387
Kratie	15.7	40.3	(1.7)	0.8	5.7	0.8	(0.8)	5.8	38.2	0.0	(1.6)	116
Phnom Penh	8.3	20.9	(1.1)	1.0	8.2	2.4	(0.6)	2.4	26.4	0.0	(1.2)	297
Prey Veng	8.3	28.7	(1.3)	1.6	8.5	0.0	(0.8)	4.2	31.7	0.0	(1.5)	352
Pursat	12.5	34.5	(1.4)	4.7	11.9	1.7	(0.9)	7.6	38.2	0.6	(1.6)	129
Siem Reap	16.9	42.5	(1.8)	2.5	9.9	0.3	(0.9)	11.7	39.9	0.3	(1.8)	259
Svay Rieng	6.4	29.3	(1.3)	2.1	12.1	0.1	(1.0)	6.0	33.5	0.7	(1.6)	138
Takeo	8.5	31.8	(1.7)	1.4	8.6	0.6	(1.0)	5.5	39.8	0.0	(1.8)	249
Otdar Mean Chey	13.6	35.3	(1.4)	5.3	14.0	3.9	(0.8)	8.1	37.1	1.5	(1.5)	45
Battambang/Pailin	4.3	23.9	(1.1)	2.1	13.3	1.2	(0.8)	5.4	25.3	0.0	(1.4)	274
Kampot/Kep	9.7	34.2	(1.6)	0.2	10.6	1.5	(0.8)	7.4	40.2	0.0	(1.6)	169
Preah Sihanouk/Koh Kong	11.5	31.3	(1.5)	0.6	8.5	3.6	(0.6)	4.8	26.3	0.6	(1.4)	85
Preah Vihear/Steung Treng	25.6	49.1	(2.0)	0.5	7.3	0.6	(0.7)	11.9	46.8	1.1	(1.8)	104
Mondol Kiri/Rattanak Kiri	23.0	48.3	(1.9)	1.9	8.7	1.5	(0.6)	7.9	41.0	1.0	(1.6)	74
Mother's education[6]												
No schooling	17.2	43.0	(1.8)	1.3	9.9	1.2	(0.8)	9.0	40.5	0.1	(1.7)	711
Primary	9.5	33.7	(1.5)	1.5	10.9	0.6	(0.9)	6.4	36.4	0.2	(1.6)	2,061
Secondary and higher	6.1	25.2	(1.2)	0.6	7.0	1.5	(0.7)	3.9	26.3	0.3	(1.3)	891
Missing	17.6	39.8	(1.6)	1.4	7.6	0.4	(0.9)	7.4	41.1	0.0	(1.7)	294
Wealth quintile												
Lowest	16.5	44.8	(1.8)	0.9	11.0	0.8	(0.9)	8.6	43.0	0.2	(1.8)	1,038
Second	11.4	39.5	(1.7)	2.1	8.1	0.5	(0.9)	6.7	40.4	0.1	(1.7)	807
Middle	10.1	31.7	(1.5)	0.7	10.7	0.2	(0.9)	6.6	34.9	0.2	(1.6)	741
Fourth	8.1	27.6	(1.4)	1.4	9.1	1.3	(0.8)	6.0	30.3	0.3	(1.5)	748
Highest	4.2	18.7	(1.0)	1.2	8.3	2.0	(0.7)	2.3	21.8	0.4	(1.2)	623
Total	10.7	33.9	(1.5)	1.3	9.6	0.9	(0.8)	6.4	35.2	0.2	(1.6)	3,957

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.
[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 14.10
[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

PERSONS INVOLVED IN THE 2010 CAMBODIA DEMOGRAPHIC AND HEALTH SURVEY

Appendix ***D***

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Ms. Pang Sophany
Ms. Chun Mengchou
Ms. Thong Somaly
Ms. An Savoeun
Ms. Sorn Vantha
Ms. Bou Bandol
Ms. Ly Nary
Ms. Kang Sreymom
Ms. Seng Chantheara
Ms. Chhim Sam Ath
Ms. Pol Sovann
Mr. Norng Bunmeng

INTERVIEWERS

Nau Potmakkara
Sem Chanthorn
Pol Sophea
Chhom Pisith
Kry Sopheap
Tong Botum
Leav Vouchnea
Yin Roathninda
Khun Sreynith
Ul Sokhoeun
Chhun Navy
Hun Sivorn
Thy Sopheak
Kann Savon
Dy Sor
Noun Nisaykosal
Oun Sokunthea
Som socheata
Sin Somala
Chhang Chiva
Sam Chakrya
Pon Sophea
Hong Sodany
Sim Seth
Bun Sytho
Seng Bunny
Ros Punlork
Lim Thavy
Hout Dany
Ou Chantha
Roeun Kimsreng
Keo Vitheavy
Samreth Srey
Cheap Yeang
Houn Nireak
Thong Vandeth
Khiev Madary
Kong Botum
Phok Uksaphea
Ouk Tith Sopheak
Korm Rekha
Hout Akara
Mom Sathya
Kim Sokheng
Soeung Chantha
Hou Kimhean
Souk Soeurn
Touch Minaer
Som Samphorsbopha
Van Madet
Ho Phara
Heng Dara
Heang Solida
Ung Nimol
Tum Tevy
Ek Somaly
Chhim Samlot
Pho Sokha
Pheat Borin
Soth Chinda
Ou Thavin
Heang Kimsorn
Khem Sopheap
Seng Rina
Chheang Puthe
Duch Chamroeurn
Im Sothea

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Bunsoth Mao
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Christopher Gramer
Greg Edmondson

QUESTIONNAIRES

Appendix ***E***

CAMBODIA DEMOGRAPHIC AND HEALTH SURVEYS 2010
HOUSEHOLD QUESTIONNAIRE

MINISTRY OF PLANNING
NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH
DIRECTORATE GENERAL FOR HEALTH

IDENTIFICATION

DOMAIN	
NAME OF HOUSEHOLD HEAD _____	
PROVINCE _____	
DISTRICT _____	
COMMUNE _____	
VILLAGE _____	
CLUSTER NUMBER	
HOUSEHOLD NUMBER	

HOUSEHOLD SELECTED FOR MALE INTERVIEW, ANEMIA TEST AND ANTHROPOMETRIC MEASUREMENTS	YES = 1 NO = 2

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
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 _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		

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INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with the ministry of health and ministry of planning. We are conducting a survey about health all over Cambodia. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.
In case you need more information about the survey, you may contact the person listed on this card.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	2	3	4	5	6	7	8	9	10	11
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = 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 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01	01
02			1 2	1 2	1 2			02	02	02
03			1 2	1 2	1 2			03	03	03
04			1 2	1 2	1 2			04	04	04
05			1 2	1 2	1 2			05	05	05
06			1 2	1 2	1 2			06	06	06
07			1 2	1 2	1 2			07	07	07
08			1 2	1 2	1 2			08	08	08
09			1 2	1 2	1 2			09	09	09
10			1 2	1 2	1 2			10	10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD	08 = BROTHER OR SISTER
02 = WIFE OR HUSBAND	09 = OTHER RELATIVE
03 = SON OR DAUGHTER	10 = ADOPTED/FOSTER/ STEPCHILD
04 = SON-IN-LAW OR DAUGHTER-IN-LAW	11 = NOT RELATED
05 = GRANDCHILD	98 = DON'T KNOW
06 = PARENT	
07 = PARENT-IN-LAW	

	IF AGE 0-17 YEARS				IF AGE 3 YEARS OR OLDER		IF AGE 3-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION
	12	13	14	15	16	17	18	19	20
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	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 (2009-2010) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE	
01	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
02	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
03	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
04	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
05	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
06	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
07	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
08	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
09	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
10	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL	GRADE	
1 = PRIMARY	(01-06 FOR GRADE 1-6)	00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 17 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 19)
2 = LOWER SECONDARY	(07-09 FOR GRADE 7-9)	
3 = UPPER SECONDARY	(10-12 FOR GRADE 10-12)	
4 = HIGHER	(01-08 FOR YEAR 1-8)	
5 = PRE-PRIMARY	(00 FOR ANY YEAR)	98 = DON'T KNOW
8 = DON'T KNOW		

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = 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 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
11			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		11	11	11
12			1 2	1 2	1 2			12	12	12
13			1 2	1 2	1 2			13	13	13
14			1 2	1 2	1 2			14	14	14
15			1 2	1 2	1 2			15	15	15
16			1 2	1 2	1 2			16	16	16
17			1 2	1 2	1 2			17	17	17
18			1 2	1 2	1 2			18	18	18
19			1 2	1 2	1 2			19	19	19
20			1 2	1 2	1 2			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	08 = BROTHER OR SISTER
02 = WIFE OR HUSBAND	09 = OTHER RELATIVE
03 = SON OR DAUGHTER	10 = ADOPTED/FOSTER/ STEPCHILD
04 = SON-IN-LAW OR DAUGHTER-IN-LAW	11 = NOT RELATED
05 = GRANDCHILD	98 = DON'T KNOW
06 = PARENT	
07 = PARENT-IN-LAW	

	IF AGE 0-17 YEARS				IF AGE 3 YEARS OR OLDER		IF AGE 3-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION
	12	13	14	15	16	17	18	19	20
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	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 (2009-2010) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
11	Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8 GO TO 16		Y N 1 2 GO TO 20	LEVEL GRADE	Y N 1 2 GO TO 20	LEVEL GRADE	
12	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
13	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
14	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
15	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
16	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
17	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
18	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
19	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		
20	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL	GRADE	
1 = PRIMARY	(01-06 FOR GRADE 1-6)	00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 17 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 19)
2 = LOWER SECONDARY	(07-09 FOR GRADE 7-9)	
3 = UPPER SECONDARY	(10-12 FOR GRADE 10-12)	
4 = HIGHER	(01-08 FOR YEAR 1-8)	
5 = PRE-PRIMARY	(00 FOR ANY YEAR)	98 = DON'T KNOW
8 = DON'T KNOW		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	
50	Was any person of your household injured or killed in an accident in the past 12 months?	YES . . . . . 1 NO . . . . . 2 (GO TO 59)←	
51	What is the name of the person(s) injured or killed? ENTER THE NAME OF EACH PERSON INJURED OR KILLED. IF THERE ARE MORE THAN TWO PEOPLE, USE AN ADDITIONAL QUESTIONNAIRE.		
52	NAME INJURED/KILLED	NAME _____	NAME _____
53	Could you tell me in what type of accident (NAME) was injured or killed?	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 FIRE/BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE/ASSULT . . . . . 09 OTHER _____ 96 SPECIFY DON'T KNOW 98	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 FIRE/BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE/ASSULT . . . . . 09 OTHER _____ 96 SPECIFY DON'T KNOW 98	
54	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 (GO TO 57)←	YES . . . . . 1 NO . . . . . 2 (GO TO 57)←	
55	In your opinion, was (NAME)'s injury serious, moderate, or slight?	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	
56	IF ALIVE: RECORD LINE NUMBER FROM COLUMN (1).	LINE NUMBER . . . . . ☐☐ (GO TO 58) ←	LINE NUMBER . . . . . ☐☐ (GO TO 58) ←	
57	Was (NAME)'s death due to the accident?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	
58		GO BACK TO 52 IN NEXT COLUMN; OR, IF NO OTHER PERSON, GO TO 59.	GO TO 52 IN NEXT COLUMN OF ADDITIONAL QUESTIONNAIRE; OR, IF NO OTHER PERSON, GO TO 59.	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	
59	Is there any person who usually lives in your household who has any type of physical impairment?	YES . . . . . 1 NO . . . . . 2 (GO TO 64A)	
60	Please give me the name of each individual who has a physical impairment. ENTER THE LINE NUMBER AND NAME OF EACH PERSON WITH A PHYSICAL IMPAIRMENT. IF THERE ARE MORE THAN TWO PEOPLE WITH A PHYSICAL IMPAIRMENT, USE ADDITIONAL QUESTIONNAIRE.		
61	LINE NUMBER AND NAME FROM COL. (1) AND (2).	NAME _____ LINE NUMBER	NAME _____ LINE NUMBER . . . . .
62	Has (NAME) been physically impaired since birth, or was (NAME)'s impairment due to an illness or accident?	SINCE BIRTH . . . . . 1 (SKIP TO 64) FROM ILLNESS . . . . . 2 ACCIDENT . . . . . 3 DON'T KNOW 8	SINCE BIRTH . . . . . 1 (SKIP TO 64) FROM ILLNESS . . . . . 2 ACCIDENT . . . . . 3 DON'T KNOW 8
63	What type of accident?	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 FIRE/BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE/ASSULT . . . . . 09 OTHER _____ 96 SPECIFY DON'T KNOW 98	LANDMINE/UNEXPLODED BOMB (UXO) . . . . . 01 GUN SHOT/WEAPON . . . . . 02 ROAD ACCIDENT . . . . . 03 FIRE/BURNING . . . . . 04 SNAKE/ANIMAL BITE . . . . . 05 FALL FROM TREE/BUILDING . . . . . 06 DROWNING . . . . . 07 POISONING (CHEMICAL) . . . . . 08 VIOLENCE/ASSULT . . . . . 09 OTHER _____ 96 SPECIFY DON'T KNOW 98	
64		GO BACK TO 61 IN NEXT COLUMN; OR, IF NO OTHER PERSON, GO TO 64A.	GO TO 61 IN NEXT COLUMN OF ADDITIONAL QUESTIONNAIRE; OR, IF NO OTHER PERSON, GO TO 64A.
64A	Is there any person who usually lives in your household who has any type of intellectuel disability or mental impairment?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
65	Please tell me if any member of your household is sick, has an illness or an injury now or at any time in the last 30 days?	YES . . . . . 1 NO . . . . . 2 (GO TO 101) ←
66	Now I would like to ask you some questions about each person who is sick/injured now or at any time in the last 30 days. Could you tell me his/her/their name(s)? Then we will talk about one person at a time. ENTER THE LINE NUMBER AND NAME OF EACH PERSON SICK/INJURED. ASK ALL QUESTIONS ABOUT ALL OF THESE PEOPLE. (IF THERE ARE MORE THAN 3 PEOPLE, USE ADDITIONAL QUESTIONNAIRE).	

67	LINE NUMBER AND NAME FROM COL. (1) AND (2).	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
68	In your opinion, was (NAME)'s illness/injury serious, moderate, or slight?	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8	SERIOUS . . . . . 1 MODERATE . . . . . 2 SLIGHT . . . . . 3 DON'T KNOW 8
69	Was advice or treatment sought for (NAME)'s illness/injury?	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 101) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 101) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO NEXT COLUMN OR TO 101) ←
70	Where was advice or treatment first sought for (NAME)'s illness/injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/ NURSE", PROBE: Did the health worker/ nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
71	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.70)? RECORD IN RIELS OR IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
72	How much in total was spent on (NAME)'s treatment at the (NAME (NAME OF PLACE FROM Q.70)? IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
73	After the first visit to (NAME OF PLACE FROM Q.70), was there a second visit to this place or was advice or treatment sought anywhere else for (NAME)'s illness/injury?	YES . . . . . 1 NO . . . . . 2 (GO TO 80A)←	YES . . . . . 1 NO . . . . . 2 (GO TO 80A)←	YES . . . . . 1 NO . . . . . 2 (GO TO 80A)←
74	For the second visit, where was advice or treatment sought for (NAME)'s illness/injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/ NURSE", PROBE: Did the health worker/ nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
75	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.74)? RECORD IN RIELS OR IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
76	How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.74)? IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS; IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS.	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 [ ][ ][ ][ ][ ][ ] DOLLARS . . . . . 2 [0][0][ ][ ][ ][ ] FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
77	After the second visit to (NAME OF PLACE FROM Q.74), was there a third visit to this place or was advice or treatment sought anywhere else for (NAME)'s illness/injury?	YES . . . . . 1 NO . . . . . 2 (GO TO 80A)	YES . . . . . 1 NO . . . . . 2 (GO TO 80A)	YES . . . . . 1 NO . . . . . 2 (GO TO 80A)
78	For the third visit, where was advice or treatment sought for (NAME)'s illness/injury? IF "HOSPITAL", PROBE: Do you mean a permanent building where health workers are present every day? IF "YES": Was it a Provincial Hospital, District Hospital, Health Center, or Private Hospital? IF "HEALTH WORKER/ NURSE", PROBE: Did the health worker/ nurse visit you or did you go to his/her office/home? CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96	PUBLIC SECTOR NATIONAL HOSP. (PP) . . . . . 11 PROVINCIAL HOSP. (RH) . . . . . 12 DISTRICT H. (RH) . 13 HEALTH CENTER . 14 HEALTH POST . . . 15 OUTREACH . . . . . 16 OTHER PUBLIC . . . 17 PRIVATE MEDICAL PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . 22 PRIVATE PHARMACY . . . . . 23 HOME/OFFICE OF TRAINED HEALTH WORKER/ NURSE . . . . . 24 VISIT OF TRAINED HLTH. WORKER/ NURSE . . . . . 25 OTHER PRIVATE MEDICAL . . . . . 26 NOT MEDICAL SECTOR SHOP SELLING DRUGS/MARKET . 31 KRU KHMER/ MAGICIAN . . . . . 32 MONK/RELIGIOUS LEADER . . . . . 33 TRADITIONAL BIRTH ATTENDANT . . . 34 OUTSIDE OF THE COUNTRY . . . 41 OTHER 96

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
79	How much in total was spent on transport to go to and return from (NAME OF PLACE FROM Q.78)? RECORD IN RIELS OR IN DOLLARS.	RIELS . . . . . 1 ☐☐☐☐☐☐ DOLLARS . . . . . 2 0 0 ☐☐☐☐ FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 ☐☐☐☐☐☐ DOLLARS . . . . . 2 0 0 ☐☐☐☐ FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 ☐☐☐☐☐☐ DOLLARS . . . . . 2 0 0 ☐☐☐☐ FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
80	How much in total was spent on (NAME)'s treatment at the (NAME OF PLACE FROM Q.78)? IF LESS THAN 1,000,000 RIELS RECORD IN RIELS OR IN DOLLARS. IF 1,000,000 RIELS OR MORE, RECORD IN DOLLARS.	RIELS . . . . . 1 ☐☐☐☐☐☐ DOLLARS . . . . . 2 0 0 ☐☐☐☐ FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 ☐☐☐☐☐☐ DOLLARS . . . . . 2 0 0 ☐☐☐☐ FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998	RIELS . . . . . 1 ☐☐☐☐☐☐ DOLLARS . . . . . 2 0 0 ☐☐☐☐ FREE/NO COST 0000000 IN KIND . . . . . 9999996 DON'T KNOW . 9999998
80A		GO BACK TO 68 IN NEXT COLUMN; OR, IF NO OTHER PERSON, GO TO 81.	GO BACK TO 68 IN NEXT COLUMN; OR, IF NO OTHER PERSON, GO TO 81.	GO BACK TO 68 IN NEXT COLUMN OF ADDITIONAL QUESTIONNAIRE; OR, IF NO OTHER PERSON, GO TO 81.
81	Where did the money come from to pay for transportation and treatment for the (two/three) member(s) of your household who had an illness/injury over the past 30 days? RECORD ALL MENTIONED	COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B HEALTH EQUITY FUND . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE D WAGES/POCKET MONEY . . . . . E GIFT FROM RELATIVE/FRIEND . . . . . F SAVINGS . . . . . G BORROW FROM (NO INTEREST) . . . . . H LOAN (WITH INTEREST) . . . . . I SALE OF ASSETS . . . . . J NGO . . . . . K TONG TIN . . . . . L OTHER _____ X (Specify)		

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less than monthly, or never?	DAILY . . . . . 1 WEEKLY . . . . . 2 MONTHLY . . . . . 3 LESS THAN MONTHLY . . . . . 4 NEVER 5	
102	What is the main source of drinking water during the dry season for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 → 104A PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 → 104A TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 → 104A ELSEWHERE 3	
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . ☐☐☐ DON'T KNOW 998	
104A	During the wet season, is the main source of drinking water for members of your household the same as during the dry season?	YES . . . . . 1 → 105 NO 2	
104B	What is the main source of drinking water during the wet season for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 → 105 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 → 105 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
104C	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ 105
104D	How long does it take to go there, get water, and come back?	MINUTES . . . . . ☐☐☐ DON'T KNOW 998	
105	Do you do anything to the water to make it safer to drink?	YES, ALWAYS . . . . . 1 YES, SOMETIME . . . . . 2 NO . . . . . 3 DON'T KNOW 8	→ 107
106	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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	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 OTHER _____ 96 (SPECIFY)	→ 110
108	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 110
109	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
110	Does your household have:		

		YES	NO
Electricity?	ELECTRICITY	1	2
A radio?	RADIO	1	2
A television?	TELEVISION	1	2
A mobile telephone?	MOBILE TELEPHONE	1	2
A non-mobile telephone?	NON-MOBILE TELEPHONE . . .	1	2
A refrigerator?	REFRIGERATOR	1	2
A wardrobe	WARDROBE	1	2
A sewing machine or loom	SEWING MACHINE	1	2
A CD/DVD player?	CD/DVD	1	2
A generator/battery/solar panel	GENERATOR/BATTERY/SOLAR	1	2

111	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG . . . . . 02 BIOGAS . . . . . 03 KEROSENE . . . . . 04 COAL, LIGNITE . . . . . 05 CHARCOAL . . . . . 06 WOOD . . . . . 07 STRAW/SHRUBS/GRASS . . . . . 08 AGRICULTURAL CROP . . . . . 09 ANIMAL DUNG . . . . . 10 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	→ 114

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 114
113	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
114	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND/CLAY . . . . . 11 DUNG . . . . . 12 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES . . . . . 33 CEMENT TILES . . . . . 34 CEMENT . . . . . 35 FLOATING HOUSE . . . . . 41 OTHER _____ 96 (SPECIFY)	
115	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 BAMBOO/THATCH/PALM LEAF . . . . . 12 RUDIMENTARY ROOFING RUSTIC MAT . . . . . 21 WOOD PLANKS . . . . . 22 CARDBOARD . . . . . 23 PLASTIC SHEET 24 FINISHED ROOFING METAL . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER . . . . . 33 CERAMIC TILES . . . . . 34 CLAY TILES . . . . . 35 CEMENT . . . . . 36 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 PALM/BAMBOO/THACH . . . . . 12 DIRT . . . . . 13 RUDIMENTARY WALLS BAMBOO WITH MUD . . . . . 21 STRAW WITH MUD 22 STONE WITH MUD . . . . . 23 UNCOVERED ADOBE . . . . . 24 PLYWOOD . . . . . 25 CARDBOARD . . . . . 26 REUSED WOOD . . . . . 27 METAL . . . . . 28 FINISHED WALLS CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 COVERED ADOBE . . . . . 35 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
117	How many rooms in this household are used for sleeping?	ROOMS	
118	Does any member of this household own: A watch? A bicycle or cyclo? A motorcycle or motor scooter? A motorcycle-cart A oxcart or horsecart? A car or truck or van? A boat with a motor? A boat without a motor?	YES NO WATCH . . . . . 1 2 BICYCLE/CYCLO . . . . . 1 2 MOTORCYCLE/SCOOTER . . . 1 2 MOTORCYCLE-CART . . . . . 1 2 OXCART/HORSECART . . . . . 1 2 CAR/TRUCK/VAN . . . . . 1 2 BOAT WITH MOTOR . . . . . 1 2 BOAT WITHOUT MOTOR . . . 1 2	
119	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 121
120	How many hectares of agricultural land do members of this household own?	SQ. METER 1 . . . . . A 2 . . . . . HECTARES 3 . . . . . RAY 4 . . . . . KONG 5 . . . . . DON'T KNOW 999998	
121	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 123

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	How many of the following animals does this household own? IF NONE, ENTER '00'. IF 95 OR MORE, ENTER '95'. IF UNKNOWN, ENTER '98'.		
	Water buffalo	WATER BUFFALO	
	Cows or bulls?	COWS/BULLS	
	Horses, donkeys, or mules?	HORSES/DONKEYS/MULES	
	Goats/sheep?	GOATS/SHEEPS	
	Pigs?	PIGS	
	Chickens or ducks?	CHICKENS/DUGS	
	Elephant?	ELEPHANT	
	Other _____ (specify)	OTHER	
123	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
137	Please show me where members of your household most often wash their hands.	OBSERVED . . . . . 1 NOT OBSERVED, NOT IN DWELLING/YARD/PLOT . . . . . 2 NOT OBSERVED, NO PERMISSION TO SEE . . . . . 3 NOT OBSERVED, OTHER REASON 4	→ 140
138	OBSERVATION ONLY: OBSERVE PRESENCE OF WATER AT THE SPECIFIC PLACE FOR HANDWASHING.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2	
139	OBSERVATION ONLY: OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) . . . . . A ASH, MUD, SAND . . . . . B NONE C	
140	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE.	IODINE PRESENT . . . . . 1 NO IODINE . . . . . 2 NO SALT IN HOUSEHOLD . . . . . 3 SALT NOT TESTED _____ 6 (SPECIFY REASON)	
141	ASK RESPONDENT TO SEE THE PACKAGE OR CAN OF THE COOKING SALT, AND CHECK THE LABEL.	LABELED IODIZED SALT . . . . . 1 NOT LABELED IODIZED SALT . . . . . 2 NO SALT PACKAGE/CAN IN HOUSEHOLD 3	
142	Has this household been identified as poor through the Identification of Poor Households process conducted by village representatives, and been placed on the List of Poor Households or received an Equity Card or Priority Access Card? ASK TO SEE THE EQUITY/PRIORITY ACCESS CARD	YES, EQUITY/PRIORITY ACCESS CARD SEEN . . . . . 1 YES, CARD NOT SEEN . . . . . 2 OTHER CARD (NOT EQUITY/PRIORITY ACCESS CARD) . . . . . 3 NO 4	
143	Do members of this household receive free or subsidized health care that other people would normally have to pay for?	YES . . . . . NO	→ 201
144	What are free and/or subsidized health care that any member of this household received?	HEALTH EQUITY FUNDS . . . . . A COMMUNITY BASED HEALTH INSURANCE . . . . . B MATERNITY VOUCHER . . . . . C OTHER _____ D SPECIFY	

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 1	CHILD 2	CHILD 3
201	CHECK COLUMN 11 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME's) birth date?	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐
204	CHECK 203: CHILD BORN IN JANUARY 2005 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG. ☐☐.☐☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. ☐☐.☐☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. ☐☐.☐☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE.) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐
210	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	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 ask that all children born in 2005 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF CHILD/NAMES OF CHILDREN) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET **(11)**.	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐
204	CHECK 203: CHILD BORN IN JANUARY 2005 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG. ☐☐.☐☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. ☐☐.☐☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. ☐☐.☐☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐
210	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	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 ask that all children born in 2005 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME(S) OF CHILD(REN) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET **(11)**.	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT FOR WOMEN AGE 15-49

214	CHECK COLUMN 9 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 215. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		WOMAN 1	WOMAN 2	WOMAN 3
215	LINE NUMBER FROM COLUMN 9 NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
216	WEIGHT IN KILOGRAMS	KG. ☐☐☐.☐☐ NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. ☐☐☐.☐☐ NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. ☐☐☐.☐☐ NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
217	HEIGHT IN CENTIMETERS	CM. ☐☐☐.☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
218	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵
219	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 223) ↵	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 223) ↵	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 223) ↵
220	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐
221	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the anemia test?		
222	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228)

		WOMAN 1	WOMAN 2	WOMAN 3
223	ASK CONSENT FOR ANEMIA TEST FROM RESPONDENT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the anemia test?		
224	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)
225	PREGNANCY STATUS: CHECK 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
240	RECORD HEMOGLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET.	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
242	GO BACK TO 216 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN, GO TO 243.			

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: _____

CAMBODIA DEMOGRAPHIC AND HEALTH SURVEYS 2010
WOMAN'S QUESTIONNAIRE

MINISTRY OF PLANNING
NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH
DIRECTORATE GENERAL FOR HEALTH

IDENTIFICATION

DOMAIN . . . . . .

NAME OF HOUSEHOLD HEAD _____

PROVINCE _____

DISTRICT _____

COMMUNE _____

VILLAGE _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME AND LINE NUMBER OF WOMAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF QUESTIONNAIRE, LANGUAGE OF INTERVIEW, NATIVE :

KHMER LANGUAGE 1

OTHER LANGUAGE _____ (SPECIFY) 2

USED TRANSLATOR:

YES 1

NO 2

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____. I am working with the ministry of health and ministry of planning. We are conducting a survey about health all over Cambodia. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions? May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	In what month and year were you born? IF RESPONDENT DOES NOT KNOW GREGORIAN MONTH AND YEAR OF BIRTH, ASK FOR KHMER MONTH AND YEAR. USE DATE CONVERSION CHART. _____ (SPECIFY KHMER MONTH AND YEAR OF BIRTH)	GREGORIAN MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 108
105	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 LOWER SECONDARY . . . . . 2 UPPER SECONDARY . . . . . 3 HIGHER 4	
106	What is the highest (grade/form/year) you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE/FORM/YEAR . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	CHECK 105: PRIMARY → SECONDARY OR HIGHER → 110		
108	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	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED → CODE '1' OR '5' CIRCLED → 111		
110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	BUDDHIST . . . . . 1 MOSLEM . . . . . 2 CHRISTIAN . . . . . 3 OTHER 4	
115	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
116	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about 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 . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
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 . . . . . [ ][ ] DAUGHTERS ELSEWHERE	
205A	Where do your sons or daughters who do not live with you live?	EXTENDED FAMILY/CAMP . . . . . A NEIGHBOR . . . . . B ORPHANAGE . . . . . C TEMPLE (WAT) . . . . . D OTHER _____ E SPECIFY DON'T KNOW X	
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 . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL BIRTHS . . . . . [ ][ ]	
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 ☐ → NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ☐ → NO BIRTHS ☐		→ 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 ROWS.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).

212 What name was given to your next baby? (NAME)	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: 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.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (NEXT BIRTH)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	
02	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

212 What name was given to your first/next baby? (NAME)	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: 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.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (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	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ↓ NUMBERS ARE DIFFERENT → (PROBE AND RECONCILE)	
224	CHECK 215: ENTER THE NUMBER OF BIRTHS IN 2005 OR LATER.	NUMBER OF BIRTHS . . . . . ☐ NONE . . . . . 8 → 226

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	**C** FOR EACH BIRTH SINCE JANUARY 2005 **(1)**, 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	→ 230
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. **C** ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS	
228	When you got pregnant, did you want to get pregnant at that time?	YES . . . . . 1 NO 2	→ 230
229	Did you want to have a baby later on or did you not want any (more) children?	LATER . . . . . 1 NO MORE 2	
230	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 238
231	When did the last such pregnancy end?	MONTH . . . . . YEAR	
232	CHECK 231: LAST PREGNANCY ENDED IN JAN. 2005 OR LATER LAST PREGNANCY ENDED BEFORE JAN. 2005		→ 238
233	How many months pregnant were you when the last such pregnancy ended? **C** 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	
233A	Did this pregnancy end in an induced abortion?	YES . . . . . 1 NO 2	→ 234
233B	What was the method used for that induced abortion	SURGICAL METHODS VACUME ASPIRATION . . . . . A CURETTAGE . . . . . B DILATATION AND EVACUATION . . . C MEDICAL METHODS ORAL PILL/TABLET . . . . . D VAGINAL PILL/TABLET . . . . . E INJECTABLE . . . . . F INTRAUTERINE . . . . . G TRADITIONAL METHODS . . . . . H OTHER METHODS X	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
233C	In the seven days after the abortion did you experience: fever? excessive bleeding?	YES NO DK FEVER . . . . . 1 2 8 BLEEDING 1 2 8	
233D	Did anyone help you to initiate the induced abortion? IF YES: Who helped you to initiate the abortion? Anyone else? RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER HEALTH PROF. . . . . D OTHER PERSON TRADITIONAL BIRTH ATTENDANT . E PHARMACIST . . . . . F KRU KHMER/MAGICIAN . . . . . G RELATIVE/FRIEND . . . . . H OTHER _____ X (SPECIFY) NO ONE . . . . . Y	
233E	Where did the induced abortion take place? IF HOSPITAL, PROBE: Do you mean a permanent building where health workers are present everyday? IF YES: Was it a provincial hospital, district hospital, health center, or private hospital? WRITE THE NAME OF THE PLACE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC . . . . . 17 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 OTHER PRIVATE MEDICAL . . . . . 26 HOME YOUR HOME . . . . . 31 OTHER HOME . . . . . 32 OTHER PLACE _____ 96 (SPECIFY)	
233F	Was anyone present to help you at the time of the abortion? IF YES: Who was present to help you? Anyone else? RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR/MEDICAL ASSISTANT . . . A NURSE . . . . . B MIDWIFE . . . . . C OTHER HEALTH PROF. . . . . D OTHER PERSON TRADITIONAL BIRTH ATTENDANT . E PHARMACIST . . . . . F KRU KHMER/MAGICIAN . . . . . G RELATIVE/FRIEND . . . . . H OTHER PERSON _____ X (SPECIFY) NO ONE . . . . . Y	
234	Since January 2005 , have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 236

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
235	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2005. **C** ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
235A	Since January 2005, how many induced abortion have you had ?	TOTAL NUMBER ABORTIONS SINCE JANUARY 2005 . . . . . [ ][ ]	
236	Did you have any miscarriages, abortions or stillbirths that ended before 2005?	YES . . . . . 1 NO 2	→ 238
237	When did the last such pregnancy that terminated before 2005 end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
237A	In total, how many induced abortions have you had in your lifetime?	TOTAL NUMBER ABORTIONS IN LIFETIME . . . . . [ ][ ]	
238	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
239	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 241
240	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
241	Do you take iron tablet like this (or these) every week?	YES . . . . . 1 NO 2	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?		
01	**Female Sterilization**. PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	**Male Sterilization**. PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
03	**IUD** PROBE: Women can have a loop or coil placed inside them by a doctor, midwife, or a nurse.	YES . . . . . 1 NO 2	
04	**Injectables**. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
05	**Implants**. PROBE: Women can have one or more small rods placed in their upper arm by a doctor, a midwife, or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
06	**DAILY PILL Women can take a pill every day. PROBE:** Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
07	**MONTHLY PILL or CHINESE PILL. PROBE:** Women can take a pill once a month to avoid becoming pregnant.	YES . . . . . 1 NO 2	
08	**Condom**. PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	
09	**Female Condom**. PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
10	**Lactational Amenorrhea Method** (LAM)	YES . . . . . 1 NO 2	
11	**Rhythm Method**. PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	
12	**Withdrawal**. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
13	**Emergency Contraception**. PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES . . . . . 1 NO 2	
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	
302	CHECK 226: NOT PREGNANT OR UNSURE PREGNANT → 311		
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO . . . . . 2 → 311	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E DAILY PILL . . . . . F MONTHLY METHOD (CHINESE PILL) . G CONDOM . . . . . H FEMALE CONDOM . . . . . I DIAPHRAGM . . . . . J FOAM/JELLY . . . . . K LACTATIONAL AMEN. METHOD . . . . . L RHYTHM METHOD . . . . . M WITHDRAWAL . . . . . N OTHER MODERN METHOD . . . . . O OTHER TRADITIONAL METHOD . . . Y	→ 307 → 308A → 306 → 308A
305	What is the brand name of the pills you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	SREY PICH . . . . . 01 OK . . . . . 02 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	NUMBER ONE . . . . . 01 OK . . . . . 02 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A
307	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC SECTOR _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 OTHER PRIVATE MEDICAL SECTOR _____ 23 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
308	In what month and year was the sterilization performed?		
308A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
309	CHECK 308/308A, 215 AND 231: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308/308A GO BACK TO 308/308A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).	YES ☐→ NO ☐↓	
310	CHECK 308/308A: YEAR IS 2005 OR LATER ☐→ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. YEAR IS 2004 OR EARLIER ☐→ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2005. THEN SKIP TO → 322		
311	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. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2005. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. **C** **IN COLUMN 1**, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * 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? **IN COLUMN 2**, ENTER CODES FOR DISCONTINUATION NEXT TO THE LAST MONTH OF USE. NUMBER OF CODES IN COLUMN 2 MUST BE SAME AS NUMBER OF INTERRUPTIONS OF METHOD USE IN COLUMN 1. ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT. ILLUSTRATIVE QUESTIONS: * Why did you stop using the (METHOD)? Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason? * IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER '0' IN EACH SUCH MONTH IN COLUMN 1.	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐ ANY METHOD USED ☐ → 314		
313	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 324
314	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 DAILY PILL . . . . . 06 MONTHLY METHOD (CHINESE PILL) 07 CONDOM . . . . . 08 FEMALE CONDOM . . . . . 09 DIAPHRAGM . . . . . 10 FOAM/JELLY . . . . . 11 LACTATIONAL AMEN. METHOD . . . . . 12 RHYTHM METHOD . . . . . 13 WITHDRAWAL . . . . . 14 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 324 → 317A → 326 → 315A → 326
315	You first started using (CURRENT METHOD) in (DATE FROM 308/308A). Where did you get it at that time?	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC SECTOR _____ 17 (SPECIFY)	
315A	Where did you learn how to use the rhythm/lactational amenorhea/withdrawal method?	PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PHARMACY . . . . . 23 OTHER PRIVATE MEDICAL SECTOR _____ 24 (SPECIFY)	
	PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	OTHER SHOP . . . . . 31 COMMUNITY DISTRIBUTOR . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 DAILY PILL . . . . . 06 MONTHLY METHOD (CHINESE PILL) 07 CONDOM . . . . . 08 FEMALE CONDOM . . . . . 09 DIAPHRAGM . . . . . 10 FOAM/JELLY . . . . . 11 LACTATIONAL AMEN. METHOD . . . . . 12 RHYTHM METHOD 13	→ 323 → 320 → 326 → 326
317 317A	At that time, were you told about side effects or problems you might have with the method? When you got sterilized, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 319
318	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 320
319	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
320	CHECK 317: CODE '1' CIRCLED → At that time, were you told about other methods of family planning that you could use? CODE '1' NOT CIRCLED → When you obtained (CURRENT METHOD FROM 314) from (SOURCE OF METHOD FROM 307 OR 315), were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 322
321	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
322	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 DAILY PILL . . . . . 06 MONTHLY METHOD (CHINESE PILL) 07 CONDOM . . . . . 08 FEMALE CONDOM . . . . . 09 DIAPHRAGM . . . . . 10 FOAM/JELLY . . . . . 11 LACTATIONAL AMEN. METHOD . . . . . 12 RHYTHM METHOD . . . . . 13 WITHDRAWAL . . . . . 14 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD . . . 96	→ 326 → 326 → 326

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
323	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSPITAL (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 MILITARY HOSPITAL . . . . . 16 OTHER PUBLIC SECTOR _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PHARMACY . . . . . 23 OTHER PRIVATE MEDICAL SECTOR _____ 24 (SPECIFY) OTHER SHOP . . . . . 31 COMMUNITY DISTRIBUTOR . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	→ 326
324	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 326
325	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSPITAL (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E MILITARY HOSPITAL . . . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . H PRIVATE CLINIC . . . . . I PHARMACY . . . . . J OTHER PRIVATE MEDICAL SECTOR _____ K (SPECIFY) OTHER SHOP . . . . . L COMMUNITY DISTRIBUTOR . . . . . M FRIEND/RELATIVE . . . . . N OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
326	In the last 12 months, were you visited by a fieldworker who talked to you about family planning?	YES . . . . . 1 NO 2	
327	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
328	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2005 OR LATER ☐ ↓ NO BIRTHS IN 2005 OR LATER ☐ → 556			
402	CHECK 215: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2005 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 some questions about your children born in the last five years. (We will talk about each separately.)			
403	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER ☐☐	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER ☐☐
404	FROM 212 AND 216	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES . . . . . 1 (SKIP TO 408) ← NO 2	YES . . . . . 1 (SKIP TO 430) ← NO 2	YES . . . . . 1 (SKIP TO 430) ← NO 2
406	Did you want to have a baby later on, or did you not want any (more) children?	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 408) ←	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430) ←	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430) ←
407	How much longer did you want to wait?	MONTHS . .1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW . . . 998
408	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ←		
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR/MEDICAL ASSISTANT . A MIDWIFE . . . . . B NURSE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . D VILLAGE HEALT VOLUNTEER . . . E OTHER_____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S). IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	HOME YOUR HOME . . . A MIDWIFE/TBA HOME . . . . . B OTHER HOME . . . C PUBLIC SECTOR NATL HOSP (PP) D PROV HOSP (RH) E DIST HOSP (RH) F HLTH CENTER . . . G HLTH POST . . . . . H OUTREACH . . . . . I MILITARY HOSP J OTHER PUBLIC SECTOR _____ K (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . . . L PRIV. CLINIC . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER _____ X (SPECIFY)		
411	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . ☐☐ DON'T KNOW 98		
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES ☐☐ DON'T KNOW 98		
413	As part of your antenatal care during this pregnancy, were any of the following done at least once: Were you weighed? Was your height taken? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample? Did you received nutritional counseling?	YES NO WEIGHT . . . 1 2 HEIGHT . . . 1 2 BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD . . . 1 2 NUTR COUN 1 2		
414	During (any of) your antenatal care visit(s), were you told about things to look out for that might suggest problems with the pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) ← DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
416	During this pregnancy, how many times did you get a tetanus injection?	TIMES . . . . . [ ] DON'T KNOW 8		
417	CHECK 416:	2 OR MORE TIMES → (SKIP TO 421) OTHER →		
418	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW . . . 8		
419	Before this pregnancy, how many times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8		
420	How many years ago did you receive the last tetanus injection before this pregnancy?	YEARS AGO . . . . . [ ][ ]		
421	During this pregnancy, were you given or did you buy any iron 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 [ ][ ][ ] DON'T KNOW . . . 998		
423	During this pregnancy, did you take any drug for intestinal parasites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
423A	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
423B	During this pregnancy, did you suffer from night blindness?	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 _____
424	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 430) DON'T KNOW 8		
425	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		
426	CHECK 425: SP/FANSIDAR TAKEN FOR MALARIA PREVENTION.	CODE 'A' CIRCLED CODE 'A' NOT CIRCLED (SKIP TO 430)		
427	How many times did you take (SP/Fansidar) during this pregnancy?	TIMES		
428	CHECK 409: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY	CODE 'A', B' OR 'C' CIRCLED OTHER (SKIP TO 430)		
429	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		
430	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
431	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) DON'T KNOW 8
432	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 . . . KG FROM RECALL 2 . . . DON'T KNOW 99998	KG FROM CARD 1 . . . KG FROM RECALL 2 . . . DON'T KNOW 99998	KG FROM CARD 1 . . . KG FROM RECALL 2 . . . DON'T KNOW 99998

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
433	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PERSONNEL DOCTOR/MEDICAL ASSISTANT . A MIDWIFE . . . . . B NURSE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E OTHER _____ X (SPECIFY) NO ONE ASSISTED Y	HEALTH PERSONNEL DOCTOR/MEDICAL ASSISTANT . A MIDWIFE . . . . . B NURSE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E OTHER _____ X (SPECIFY) NO ONE ASSISTED Y	HEALTH PERSONNEL DOCTOR/MEDICAL ASSISTANT . A MIDWIFE . . . . . B NURSE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E OTHER _____ X (SPECIFY) NO ONE ASSISTED Y
434	Where did you give birth to (NAME)? **(2)** PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. (NAME OF PLACE)	HOME YOUR HOME . . . 11 (SKIP TO 438) OTHER HOME . . . 12 PUBLIC SECTOR NATL HOSP (PP) 21 PROV HOSP (RH) 22 DIST HOSP (RH) 23 HLTH CENTER 24 HLTH POST 25 MILITARY HOSP 26 OTHER PUBLIC SECTOR _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . 31 PRIV CLINIC . . . . . 32 OTHER PRIVATE MED. SECTOR _____ 33 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 438)	HOME YOUR HOME . . . 11 (SKIP TO 448) OTHER HOME . . . 12 PUBLIC SECTOR NATL HOSP (PP) 21 PROV HOSP (RH) 22 DIST HOSP (RH) 23 HLTH CENTER 24 HLTH POST 25 MILITARY HOSP 26 OTHER PUBLIC SECTOR _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . 31 PRIV CLINIC . . . . . 32 OTHER PRIVATE MED. SECTOR _____ 33 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448)	HOME YOUR HOME . . . 11 (SKIP TO 448) OTHER HOME . . . 12 PUBLIC SECTOR NATL HOSP (PP) 21 PROV HOSP (RH) 22 DIST HOSP (RH) 23 HLTH CENTER 24 HLTH POST 25 MILITARY HOSP 26 OTHER PUBLIC SECTOR _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . 31 PRIV CLINIC . . . . . 32 OTHER PRIVATE MED. SECTOR _____ 33 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448)
435	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES, ELECTIVE . . . 1 YES, EMERGENCY/ MEDIC INDICATED 2 NO 3	YES, ELECTIVE . . . 1 YES, EMERGENCY/ MEDIC INDICATED 2 NO 3	YES, ELECTIVE . . . 1 YES, EMERGENCY/ MEDIC INDICATED 2 NO 3
436	After you gave birth to (NAME), did anyone check on your health while you were still in the facility?	YES . . . . . 1 (SKIP TO 439) NO 2		
437	Did anyone check on your health after you left the facility?	YES . . . . . 1 (SKIP TO 439) NO . . . . . 2 (SKIP TO 446)		
438	After you gave birth to (NAME), did anyone check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
439	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR/MEDICAL ASSISTANT . 11 MIDWIFE . . . . . 12 NURSE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT 21 OTHER_____ 96 (SPECIFY)		
440	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 WEEKS 3 DON'T KNOW . . . 998		
441	CHECK 437:	YES NOT ASKED (SKIP TO 446)		
442	In the six weeks after (NAME) was born, did any health care provider or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 446) DON'T KNOW 8		
443	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH . . 1 DAYS AFTER BIRTH . . 2 WKS AFTER BIRTH . . 3 DON'T KNOW . . . 998		
444	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR/MEDICAL ASSISTANT . 11 MIDWIFE . . . . . 12 NURSE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT 21 OTHER_____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
445	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 THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . 11 OTHER HOME . . . 12 PUBLIC SECTOR NATL HOSP (PP) 21 PROV HOSP (RH) 22 DIST HOSP (RH) 23 HLTH CENTER 24 HLTH POST 25 MILITARY HOSP 26 OTHER PUBLIC SECTOR _____ 27 (SPECIFY) PRIVATE MED. SECTOR PRIV. HOSP . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MED. SECTOR _____ 33 (SPECIFY) OTHER _____ 96 (SPECIFY)		
446	In the first six weeks after delivery, did you receive A vitamin A dose like (this/any of these)? An iron tablet (like this/these)? A deworming tablet (this/these)? An advice on contraception? A counseling for newborn care? SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES NO VITAMIN A 1 2 IRON . . . . . 1 2 DEWORMING 1 2 CONTRA-CEPTION 1 2 COUN NEWB 1 2		
447	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 449) NO . . . . . 2 (SKIP TO 450)		
448	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)
449	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98
450	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREGNANT ☐ PREGNANT OR UNSURE ☐ (SKIP TO 452)		
451	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
452	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98
453	Did you ever breastfeed (NAME)?	YES . . . . . 1 (SKIP TO 455) ← NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
454	CHECK 404: IS CHILD LIVING?	LIVING ☐ (SKIP TO 460) DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 501)		
455	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . 000 HOURS 1 ☐☐ DAYS 2 ☐☐		
456	In the first three days after delivery, was (NAME) given anything to drink other than breast milk such as chheu em?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 458) ←		
457	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) A PLAIN WATER . . . B SUGAR OR HONEY WATER . . . C SUGAR-SALT-WATER SOLUTION . . . . . D COCONUT/FRUIT JUICE . . . . . E INFANT FORMULA F HERBAL TEA . . . G OTHER _____ X (SPECIFY)		
458	CHECK 404: IS CHILD LIVING?	LIVING ☐ DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ DEAD ☐ (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
459	Are you still breastfeeding (NAME)?	YES . . . . . 1 NO 2		
460	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
461		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, HEALTH AND NUTRITION

501 ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2005 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).

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
502	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	BIRTH HISTORY NUMBER . . . . . ☐☐	BIRTH HISTORY NUMBER . . . . . ☐☐	BIRTH HISTORY NUMBER . . . . . ☐☐
503	FROM 212 AND 216	NAME _____ LIVING ☐ DEAD ☐ (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 553)
504	Do you have a card where (NAME)'s vaccinations are written down? **(2)** IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3
505	Did you ever have a vaccination card for (NAME)? **(2)**	YES . . . . . 1 (SKIP TO 509) ← NO 2	YES . . . . . 1 (SKIP TO 509) ← NO 2	YES . . . . . 1 (SKIP TO 509) ← NO 2

506 (1) COPY DATES FROM THE CARD. **(2)**
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR		NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR		SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG	☐☐	☐☐	☐☐☐☐	BCG	☐☐	☐☐	☐☐☐☐	BCG	☐☐	☐☐	☐☐☐☐
HB 0 (HEPATITIS B GIVEN AT BIRTH)	☐☐	☐☐	☐☐☐☐	HB0	☐☐	☐☐	☐☐☐☐	HB0	☐☐	☐☐	☐☐☐☐
POLIO 1	☐☐	☐☐	☐☐☐☐	P1	☐☐	☐☐	☐☐☐☐	P1	☐☐	☐☐	☐☐☐☐
POLIO 2	☐☐	☐☐	☐☐☐☐	P2	☐☐	☐☐	☐☐☐☐	P2	☐☐	☐☐	☐☐☐☐
POLIO 3	☐☐	☐☐	☐☐☐☐	P3	☐☐	☐☐	☐☐☐☐	P3	☐☐	☐☐	☐☐☐☐
TETRA /PENTAVALENT 1	☐☐	☐☐	☐☐☐☐	T/P1	☐☐	☐☐	☐☐☐☐	T/P1	☐☐	☐☐	☐☐☐☐
TETRA /PENTAVALENT 2	☐☐	☐☐	☐☐☐☐	T/P2	☐☐	☐☐	☐☐☐☐	T/P2	☐☐	☐☐	☐☐☐☐
TETRA /PENTAVALENT 3	☐☐	☐☐	☐☐☐☐	T/P3	☐☐	☐☐	☐☐☐☐	T/P3	☐☐	☐☐	☐☐☐☐
MEASLES	☐☐	☐☐	☐☐☐☐	MEA	☐☐	☐☐	☐☐☐☐	MEA	☐☐	☐☐	☐☐☐☐
VITAMIN A (MOST RECENT)	☐☐	☐☐	☐☐☐☐	VIT A	☐☐	☐☐	☐☐☐☐	VIT A	☐☐	☐☐	☐☐☐☐

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
507	CHECK 506:	BCG TO MEASLES ALL RECORDED ☐ (GO TO 511) OTHER ☐	BCG TO MEASLES ALL RECORDED ☐ (GO TO 511) OTHER ☐	BCG TO MEASLES ALL RECORDED ☐ (GO TO 511) OTHER ☐

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
508	Has (NAME) had any vaccinations that are not recorded on this card, including vaccinations given in a national immunization day campaign? RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 506 THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8
509	Did (NAME) ever have any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8
510	Please tell me if (NAME) had any of the following vaccinations:			
510A	A BCG vaccination against tuberculosis, that is, an injection in the left arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8
510D	How many times was the polio vaccine given?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
510E	A Tetravalent/Pentavalent vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8
510F	How many times was the Tetravalent/Pentavalent vaccination given?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
510G	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 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510H	A hepatitis B vaccination against hepatitis, that is, an injection given in the right thigh in the first weeks after birth?	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 _____
511	Within the last six months, was (NAME) given a vitamin A dose like (this/any of these)? SHOW COMMON TYPES OF AMPULES/CAPSULES/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
512	In the last seven days, was (NAME) given micrinutrient powder like (this/any of these)? SHOW PACKAGE OF MICRONUTRIENT POWDER	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
513	Was (NAME) given any drug for intestinal worms in the last six months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
514	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8
515	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
516	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH 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
517	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH 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
518	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
519	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATL HOSP (PP) A PROV HOSP (RH) B DIST HOSP (RH) C HLTH CENTER . D HLTH POST . . . E OUTREACH . . . F MILITARY HOSP G OTHER PUBLIC SECTOR . . . _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) A PROV HOSP (RH) B DIST HOSP (RH) C HLTH CENTER . D HLTH POST . . . E OUTREACH . . . F MILITARY HOSP G OTHER PUBLIC SECTOR . . . _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) A PROV HOSP (RH) B DIST HOSP (RH) C HLTH CENTER . D HLTH POST . . . E OUTREACH . . . F MILITARY HOSP G OTHER PUBLIC SECTOR . . . _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)
520	CHECK 519:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)
521	Where did you first seek advice or treatment? USE LETTER CODE FROM 519.	FIRST PLACE . . .	FIRST PLACE . . .	FIRST PLACE . . .
522	Was he/she given any of the following to drink at any time since he/she started having the diarrhea: a) A fluid made from a special packet called Oralyte? b) A ORS Tablet called?	YES NO DK FLUID FROM ORS PKT 1 2 8 ORS TAB 1 2 8	YES NO DK FLUID FROM ORS PKT 1 2 8 ORS TAB 1 2 8	YES NO DK FLUID FROM ORS PKT 1 2 8 ORS TAB 1 2 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
523	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8
524	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B ZINC . . . . . C OTHER (NOT ANTIBIOTIC, ANTIMOTILITY, 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 ANTIBIOTIC, ANTIMOTILITY, 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 ANTIBIOTIC, ANTIMOTILITY, 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)
525	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527) DON'T KNOW 8
526	At any time during the illness, did (NAME) have blood taken from his/her finger or heel for testing?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
527	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8
528	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 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8
529	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 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
530	CHECK 525: HAD FEVER?	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES ☐ NO OR DK ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553)
531	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
532	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
533	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
534	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATL HOSP (PP) A PROV HOSP (RH) B DIST HOSP (RH) C HLTH CENTER . D HLTH POST . . . E OUTREACH . . . F MILITARY HOSP G OTHER PUBLIC SECTOR . . . _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) A PROV HOSP (RH) B DIST HOSP (RH) C HLTH CENTER . D HLTH POST . . . E OUTREACH . . . F MILITARY HOSP G OTHER PUBLIC SECTOR . . . _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)	PUBLIC SECTOR NATL HOSP (PP) A PROV HOSP (RH) B DIST HOSP (RH) C HLTH CENTER . D HLTH POST . . . E OUTREACH . . . F MILITARY HOSP G OTHER PUBLIC SECTOR . . . _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIV. HOSP . . . I PRIV. CLINIC . . . J PHARMACY . . . K HOME OF TRAINED HEALTH WORKER . . . L VISIT OF TRAINED HEALTH WORKER . . . M OTHER PRIVATE MED. SECTOR _____ N (SPECIFY) OTHER SOURCE SHOP . . . . . O TRADITIONAL PRACTITIONER P OTHER _____ X (SPECIFY)
535	CHECK 534:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)
536	Where did you first seek advice or treatment? USE LETTER CODE FROM 534.	FIRST PLACE . . .	FIRST PLACE . . .	FIRST PLACE . . .
537	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 553) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553) 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 553) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
538	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K OTHER ANTI-MALARIAL _____ . . . L (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . M INJECTION . . . N OTHER DRUGS ASPIRIN . . . . . O ACETA-MINOPHEN . . . P IBUPROFEN . . . Q DRUG COCKTAIL R MULTIVITAMIN . S OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K OTHER ANTI-MALARIAL _____ . . . L (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . M INJECTION . . . N OTHER DRUGS ASPIRIN . . . . . O ACETA-MINOPHEN . . . P IBUPROFEN . . . Q DRUG COCKTAIL R MULTIVITAMIN . S OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE B QUININE . . . . . C MALARINE . . . . . D A+M (2, 3, 4) . . . E MEFLOQUINE . . . F ARTEMISININ . . . G ARTESUNATE TABLET . . . . . H ARTESUNATE SUPPOSITORY I ARTEKINE . . . . . J COTEXIN . . . . . K OTHER ANTI-MALARIAL _____ . . . L (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . M INJECTION . . . N OTHER DRUGS ASPIRIN . . . . . O ACETA-MINOPHEN . . . P IBUPROFEN . . . Q DRUG COCKTAIL R MULTIVITAMIN . S OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
552		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
553	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2005 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ NONE ☐ → 556 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 554 _____ (NAME)		
554	The last time (NAME FROM 553) 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)	
555	CHECK 522(a) AND 522(b), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET OR PRE-PACKAGED ORS LIQUID ☐ ANY CHILD RECEIVED FLUID FROM ORS PACKET OR PRE-PACKAGED ORS LIQUID ☐ → 557		
556	Have you ever heard of a special product called Oralyte/Orasel you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
557	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2008 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ NONE ☐ → 601 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 558 _____ (NAME)		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

558 Now I would like to ask you about liquids or foods that (NAME FROM 557) had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods.

Did (NAME FROM 557) (drink/eat):		YES	NO	DK
a) Plain water?	**a)**	1	2	8
b) Juice or juice drinks?	**b)**	1	2	8
c) Soup?	**c)**	1	2	8
d) Milk such as tinned, powdered, or fresh animal milk?	**d)**	1	2	8
IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK MILK	☐		
e) Infant formula?	**e)**	1	2	8
IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK FORMULA	☐		
f) Any other liquids?	**f)**	1	2	8
g) Yogurt?	**g)**	1	2	8
IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ATE YOGURT	☐		
h) Any [BRAND NAME OF COMMERCIALLY FORTIFIED BABY FOOD, E.G., Cerelac]?	**h)**	1	2	8
i) Bread, rice, noodles, porridge, or other foods made from grains?	**i)**	1	2	8
j) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	**j)**	1	2	8
k) White potatoes, white yams, manioc, cassava, or any other foods made from roots?	**k)**	1	2	8
l) Any dark green, leafy vegetables?	**l)**	1	2	8
m) Ripe mangoes, papayas or [INSERT ANY OTHER LOCALLY AVAILABLE VITAMIN A-RICH FRUITS]?	**m)**	1	2	8
n) Any other fruits or vegetables?	**n)**	1	2	8
o) Liver, kidney, heart or other organ meats?	**o)**	1	2	8
p) Any meat, such as beef, pork, lamb, goat, chicken, or duck?	**p)**	1	2	8
IF YES: How many times did (NAME) eat meat? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ATE MEAT	☐		
q) Eggs?	**q)**	1	2	8
r) Fresh or dried fish or shellfish?	**r)**	1	2	8
s) Any foods made from beans, peas, lentils, or nuts?	**s)**	1	2	8
t) Cheese or other food made from milk?	**t)**	1	2	8
u) Any foods made with oil, fat, or butter?	**u)**	1	2	8
v) Any snake, snail, frog, rat, or insects?	**v)**	1	2	8
w) Any sugary foods such as pastry, cakes, chocolates, sweets or candies ?	**w)**	1	2	8
x) Any other solid, semi-solid, or soft food?	**x)**	1	2	8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
559	CHECK 558 (CATEGORIES "g" THROUGH "x"): ALL "NO" ☐ ↓ AT LEAST ONE "YES" OR ALL DKs ☐ →		561
560	Did (NAME) eat any solid, semi-solid, or soft foods yesterday during the day or at night? IF 'YES' PROBE: What kind of solid, semi-solid or soft foods did (NAME) eat?	YES . . . . . 1 (GO BACK TO 558 TO RECORD FOOD EATEN YESTERDAY) ↵ NO . . . . . 2 →	601
561	How many times did (NAME FROM 557) eat solid, semisolid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐ DON'T KNOW 8	

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	→ 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 612
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 609
604	Is your (husband/partner) living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
605	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.	
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	→ 609
607	Including yourself, in total, how many wives or live-in partners does he have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . DON'T KNOW 98	
608	Are you the first, second, ... wife?	RANK	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
610	CHECK 609: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your (husband/partner)? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now I would like to ask about your first (husband/partner). In what month and year did you start living with him? IF RESPONDENT DOES NOT KNOW GREGORIAN DATE, ASK FOR KHMER DATE OF MARRIAGE. USE DATE CONVERSION CHART TO FIND GREGORIAN MONTH AND YEAR. _____ (SPECIFY KHMER MONTH AND YEAR OF MARRIAGE)	GREGORIAN MONTH . . . . . . DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR DON'T KNOW YEAR 9998	→ 612
611	How old were you when you first started living with him?	AGE	
612	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
613	Now I would like to ask 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 . . . . . . FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 628

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
614	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.		
615	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→ 627

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
616	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 ☐☐	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 ☐☐
617	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)
618	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
619	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)
620	CHECK 609:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)
621	CHECK 613:	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND (SKIP TO 623) OTHER	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND (SKIP TO 623) OTHER	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND (SKIP TO 623) OTHER
622	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4 ☐☐	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4 ☐☐	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4 ☐☐
623	How many times during the last 12 months did you have sexual intercourse with this person?	NUMBER OF TIMES ☐☐	NUMBER OF TIMES ☐☐	NUMBER OF TIMES ☐☐
624	How old is this person?	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98
625	Apart from (this person/these two people), have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 616 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 627)	YES . . . . . 1 (GO BACK TO 616 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 627)	
626	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . . ☐☐ DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
627	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . [ ][ ] DON'T KNOW 98	
628	PRESENCE OF OTHERS DURING THIS SECTION	YES NO CHILDREN <10 . . . . . 1 2 MALE ADULTS . . . . . 1 2 FEMALE ADULTS 1 2	
629	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 632
630	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G OTHER PUBLIC SECTOR _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J PHARMACY . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M COMMUNITY DISTRIBUTOR . . . . . N FRIENDS/RELATIVES . . . . . O OTHER _____ X (SPECIFY)	
631	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
632	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 701

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
633	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G OTHER PUBLIC SECTOR _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J PHARMACY . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M COMMUNITY DISTRIBUTOR . . . . . N FRIENDS/RELATIVES . . . . . O OTHER _____ X (SPECIFY)	
634	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 304: NEITHER STERILIZED ↓ HE OR SHE STERILIZED → 712		
702	CHECK 226: PREGNANT ↓ NOT PREGNANT OR UNSURE → 704		
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 705 → 711
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW 8	→ 707 → 712 → 710
705	CHECK 226: NOT PREGNANT OR UNSURE ↓ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ↓ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 710 → 712 → 710
706	CHECK 226: NOT PREGNANT OR UNSURE ↓ PREGNANT → 711		
707	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY USING ↓ CURRENTLY USING → 712		
708	CHECK 705: NOT ASKED ↓ 24 OR MORE MONTHS OR 02 OR MORE YEARS ↓ 00-23 MONTHS OR < 02 YEARS → 711		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
709	CHECK 703 AND 704: WANTS TO HAVE A/ANOTHER CHILD ☐ → You have said that you do not want (a/another) child soon. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? WANTS NO MORE/ NONE ☐ → You have said that you do not want any (more) children. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY D CAN'T GET PREGNANT . . . . . E NOT MENSTRUATED SINCE LAST BIRTH . . . . . F BREASTFEEDING . . . . . G UP TO GOD/FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS SIDE EFFECTS/HEALTH CONCERNS . . . . . O LACK OF ACCESS/TOO FAR . . . . . P COSTS TOO MUCH . . . . . Q PREFERRED METHOD NOT AVAILABLE . . . . . R NO METHOD AVAILABLE . . . . . S INCONVENIENT TO USE . . . . . T INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . U OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
710	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ → NO, NOT CURRENTLY USING ☐ → YES, CURRENTLY USING ☐		→ 712
711	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712	CHECK 216: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → 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 . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 714 → 714

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER [ ][ ] [ ][ ] [ ][ ] OTHER _____ 96 (SPECIFY)	
714	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Through family or friends? From community council? Billboards, posters, or leaflets? Local campaign for family planing?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2 FAMILY/FRIENDS . . . . . 1 2 COMMUNITY COUNCIL . . . . . 1 2 BILLBOARDS/POSTERS . . . . . 1 2 LOCAL CAMPAIGN 1 2	
716	CHECK 601: YES, CURRENTLY MARRIED ☐ ↓ YES, LIVING WITH A MAN ☐ ↓ NO, NOT IN UNION ☐ → 801		
717	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING ☐ ↓ NOT CURRENTLY USING OR NOT ASKED ☐ → 720		
718	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)	
719	CHECK 304: NEITHER STERILIZED ☐ ↓ HE OR SHE STERILIZED ☐ → 801		
720	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	CHECK 601 AND 602: CURRENTLY MARRIED/ LIVING WITH A MAN FORMERLY MARRIED/ LIVED WITH A MAN NEVER MARRIED AND NEVER LIVED WITH A MAN		→ 803 → 807
802	How old was your (husband/partner) on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) (husband/partner) ever attend school?	YES . . . . . 1 NO 2	→ 806
804	What was the highest level of school he attended: primary, lower secondary, or higher?	PRIMARY . . . . . 1 LOWER SECONDARY . . . . . 2 UPPER SECONDARY . . . . . 3 HIGHER . . . . . 4 DON'T KNOW 8	→ 806
805	What was the highest (grade/form/year) he completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE . . . . . ☐☐ DON'T KNOW 98	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN: What is your (husband's/ partner's) occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN: What was your (last) (husband's/ partner's) occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 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?	YES . . . . . 1 NO 2	→ 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?	YES . . . . . 1 NO 2	→ 811
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 815
811	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
812	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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	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	
814	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	
815	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN ☐ NOT IN UNION ☐		→ 823
816	CHECK 814: CODE 1 OR 2 CIRCLED ☐ OTHER ☐		→ 819
817	Who usually decides how the money you earn will be used: you, your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER _____ 6 (SPECIFY)	
818	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	→ 820
819	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)	
820	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 AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
821	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
822	Who usually makes decisions about visits to your family or relatives?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 SOMEONE ELSE HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
823	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
824	Do you own any land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
825	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	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	
826	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	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 ASK USE CONDOM . 1 2 8	
	If she goes out without telling him?		
	If she neglects the children?		
	If she argues with him?		
	If she refuses to have sex with him?		
	If she burns the food?		
	If she ask him to use condom?		
827	In your opinion, is a parent justified in hitting or beating his son for the following reasons:	YES / NO / DK DISOBEY . . . . . 1 2 8 IMPOLITE . . . . . 1 2 8 EMBARR. FAMILY . . . 1 2 8	
	If he disobeys?		
	If he impolite?		
	If he has embarrassed the family?		
828	In your opinion, is a parent justified in hitting or beating his daughter for the following reasons:	YES / NO / DK DISOBEY . . . . . 1 2 8 IMPOLITE . . . . . 1 2 8 EMBARR. FAMILY . . . 1 2 8	
	If she disobeys?		
	If she impolite?		
	If she has embarrassed the family?		

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	→ 937
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 get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
909	CHECK 908: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 911
910	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
911	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2008 ☐ LAST BIRTH BEFORE JANUARY 2008 ☐		→ 926 → 926
912	CHECK 408 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ NO ANTENATAL CARE ☐		→ 920
913	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
914	During any of the antenatal visits for your last birth were you given any information 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?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO 1 2 8 TESTED FOR AIDS 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
915	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	
916	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	→ 920
917	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 VCCT CENTER . . . . . 18 PMTCT SITE . . . . . 19 OTHER PUBLIC SECTOR _____ 20 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PRIVATE LABORATORY . . . . . 23 OTHER PRIVATE MEDICAL SECTOR _____ 24 (SPECIFY) OTHER _____ 96 (SPECIFY)	
918	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	→ 924
919	All women are supposed to receive counseling after being tested. After you were tested, did you receive counseling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 924
920	CHECK 434 FOR LAST BIRTH: ANY CODE 21-33 CIRCLED OTHER		→ 926
921	Between the time you went for delivery but before the baby was born, were you offered a test for the AIDS virus?	YES . . . . . 1 NO 2	
922	I don't want to know the results, but were you tested for the AIDS virus at that time?	YES . . . . . 1 NO 2	→ 926
923	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
924	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 927
925	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 96	→ 932

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
926	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	→ 930
927	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . [ ][ ] TWO OR MORE YEARS 96	
928	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
929	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 VCCT CENTER . . . . . 18 PMTCT SITE . . . . . 19 OTHER PUBLIC SECTOR _____ 20 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PRIVATE LABORATORY . . . . . 23 OTHER PRIVATE MEDICAL SECTOR _____ 24 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 932
930	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 932

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
931	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G VCCT CENTER . . . . . H PMTCT SITE . . . . . I OTHER PUBLIC SECTOR _____ (SPECIFY) J PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . K PRIVATE CLINIC . . . . . L PRIVATE LABORATORY . . . . . M OTHER PRIVATE MEDICAL SECTOR _____ (SPECIFY) N OTHER _____ (SPECIFY) X	
932	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
933	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
934	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
935	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
936	Do you personally know someone who has been denied health services in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 8	
936A	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	
936B	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the communit?	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
937	CHECK 901: HEARD ABOUT AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
938	CHECK 613: HAS HAD SEXUAL INTERCOURSE ↓ NEVER HAD SEXUAL INTERCOURSE → 946		
939	CHECK 937: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ↓ NO → 941		
940	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	
941	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	
942	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	
943	CHECK 940, 941, AND 942: HAS HAD AN INFECTION (ANY 'YES') ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW → 946		
944	The last time you had (PROBLEM FROM 940/941/942), did you seek any kind of advice or treatment?	YES . . . . . 1 NO . . . . . 2 → 946	
945	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . C HEALTH CENTER . . . . . D HEALTH POST . . . . . E FIELDWORKER . . . . . F OUTREACH . . . . . G MILITARY HOSPITAL . . . . . H VCCT CENTER . . . . . I PMTCT SITE . . . . . J OTHER PUBLIC _____ K (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . L PRIVATE CLINIC . . . . . M PRIVATE LABORATORY . . . . . N OTHER PRIVATE MEDICAL SECTOR _____ O (SPECIFY) OTHER SOURCE OTHER _____ X (SPECIFY)	
946	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	
947	Is a wife justified in refusing to have sex with her husband when she knows he has sex with other women? **(5)**	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
948	CHECK 601: CURRENTLY MARRIED/ LIVING WITH A MAN ↓ NOT IN UNION →		1001
949	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	
950	Could you ask your (husband/partner) to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	

SECTION 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 1004
1002	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 1004
1003	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 1006
1005	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES . . . . . ☐☐	
1006	Do you currently smoke or use any (other) type of tobacco?	YES . . . . . 1 NO 2	→ 1008
1007	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	
1008	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROB-LEM / NOT A BIG PROB-LEM	
	Getting permission to go to the doctor?	PERMISSION TO GO . . . 1 / 2	
	Getting money needed for advice or treatment?	GETTING MONEY . . . . . 1 / 2	
	The distance to the health facility?	DISTANCE . . . . . 1 / 2	
	Not wanting to go alone?	GO ALONE . . . . . 1 / 2	
1009	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 1101

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1010	What type of health insurance are you covered by? RECORD ALL MENTIONED.	HEALTH EQUITY FUND . . . . . A MATERNAL HEALTH VOUCHER . . . . . B COMMUNITY-BASED HEALTH INSURANCE . . . . . C HEALTH INSURANCE THROUGH EMPLOYER . . . . . D OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE E OTHER _____ X (SPECIFY)	

SECTION 11. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER	
1102	CHECK 1101: TWO OR MORE BIRTHS ▼ ONLY ONE BIRTH (RESPONDENT ONLY) → 1114		
1103	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS	

		(1)	(2)	(3)	(4)	(5)	(6)
1104	What was the name given to your oldest (next oldest) brother or sister?	_____	_____	_____	_____	_____	_____
1105	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
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (2)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (3)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (4)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (5)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (6)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (7)
1107	How old is (NAME)?	GO TO (2)	GO TO (3)	GO TO (4)	GO TO (5)	GO TO (6)	GO TO (7)
1108	How many years ago did (NAME) die?						
1109	How old was (NAME) when he/she died?	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
1110	Was (NAME) pregnant when she died?	YES . . . 1 → GO TO 1112A NO . . . 2	YES . . . 1 → GO TO 1112A NO . . . 2	YES . . . 1 → GO TO 1112A NO . . . 2	YES . . . 1 → GO TO 1112A NO . . . 2	YES . . . 1 → GO TO 1112A NO . . . 2	YES . . . 1 → GO TO 1112A NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2
1112	Did (NAME) die within six weeks after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2 → GO TO 1113	YES . . . 1 NO . . . 2 → GO TO 1113	YES . . . 1 NO . . . 2 → GO TO 1113	YES . . . 1 NO . . . 2 → GO TO 1113	YES . . . 1 NO . . . 2 → GO TO 1113	YES . . . 1 NO . . . 2 → GO TO 1113
1112A	Was the death of (NAME) related to accident such as traffic accident?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?						

GO BACK TO 1004 IN NEXT COLUMN, OR, IF NO MORE BROTHERS OR SISTERS, END.

1104	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1105	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
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (8)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (9)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (10)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (11)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (12)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (13)
1107	How old is (NAME)?	☐☐ GO TO (8)	☐☐ GO TO (9)	☐☐ GO TO (10)	☐☐ GO TO (11)	☐☐ GO TO (12)	☐☐ GO TO (13)
1108	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1109	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (8)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
1110	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1112A NO . . . 2	YES . . . 1 GO TO 1112A NO . . . 2	YES . . . 1 GO TO 1112A NO . . . 2	YES . . . 1 GO TO 1112A NO . . . 2	YES . . . 1 GO TO 1112A NO . . . 2	YES . . . 1 GO TO 1112A NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1112	Did (NAME) die within six weeks after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2 GO TO 1113	YES . . . 1 NO . . . 2 GO TO 1113	YES . . . 1 NO . . . 2 GO TO 1113	YES . . . 1 NO . . . 2 GO TO 1113	YES . . . 1 NO . . . 2 GO TO 1113	YES . . . 1 NO . . . 2 GO TO 1113
1112A	Was the death of (NAME) related to accident such as traffic accident?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
GO BACK TO 1004 IN NEXT COLUMN, OR, IF NO MORE BROTHERS OR SISTERS, END.							
1114	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐					

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
COLUMN 1 REQUIRES A CODE IN EVERY MONTH.

INFORMATION TO BE CODED FOR EACH COLUMN

COLUMN 1: BIRTHS, PREGNANCIES, CONTRACEPTIVE USE**

- B BIRTHS
- P PREGNANCIES
- T TERMINATIONS

- 0 NO METHOD
- 1 FEMALE STERILIZATION
- 2 MALE STERILIZATION
- 3 IUD
- 4 INJECTABLES
- 5 IMPLANTS
- 6 PILL
- 7 CONDOM
- 8 FEMALE CONDOM
- 9 DIAPHRAGM
- J FOAM OR JELLY
- K LACTATIONAL AMENORRHEA METHOD
- L RHYTHM METHOD
- M WITHDRAWAL
- X OTHER MODERN METHOD
- Y OTHER TRADITIONAL METHOD

COLUMN 2: DISCONTINUATION OF CONTRACEPTIVE USE

- 0 INFREQUENT SEX/HUSBAND AWAY
- 1 BECAME PREGNANT WHILE USING
- 2 WANTED TO BECOME PREGNANT
- 3 HUSBAND/PARTNER DISAPPROVED
- 4 WANTED MORE EFFECTIVE METHOD
- 5 SIDE EFFECTS/HEALTH CONCERNS
- 6 LACK OF ACCESS/TOO FAR
- 7 COSTS TOO MUCH
- 8 INCONVENIENT TO USE
- F UP TO GOD/FATALISTIC
- A DIFFICULT TO GET PREGNANT/MENOPAUSAL
- D MARITAL DISSOLUTION/SEPARATION
- X OTHER _____ (SPECIFY)
- Z DON'T KNOW

				1	2	
	12	DEC	01			
	11	NOV	02			
	10	OCT	03			
	09	SEP	04			
2	08	AUG	05			2
0	07	JUL	06			0
1	06	JUN	07			1
1	05	MAY	08			1
*	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
1	06	JUN	19			1
0	05	MAY	20			0
*	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
9	05	MAY	32			9
*	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
8	05	MAY	44			8
*	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
7	05	MAY	56			7
*	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
6	05	MAY	68			6
*	04	APR	69			*
	03	MAR	70			
	02	FEB	71			
	01	JAN	72			
	12	DEC	73			
	11	NOV	74			
	10	OCT	75			
	09	SEP	76			
2	08	AUG	77			2
0	07	JUL	78			0
0	06	JUN	79			0
5	05	MAY	80			5
*	04	APR	81			*
	03	MAR	82			
	02	FEB	83			
	01	JAN	84			

CAMBODIA DEMOGRAPHIC AND HEALTH SURVEYS 2010
MEN QUESTIONNAIRE

MINISTRY OF PLANNING
NATIONAL INSTITUTE OF STATISTICS

MINISTRY OF HEALTH
DIRECTORATE GENERAL FOR HEALTH

IDENTIFICATION

DOMAIN . . . . . .

NAME OF HOUSEHOLD HEAD _____

PROVINCE _____ | | |

DISTRICT _____ | | |

COMMUNE _____ | | |

VILLAGE _____ | | |

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | |

NAME AND LINE NUMBER OF MAN _____ | | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY | | MONTH | | YEAR | | | |
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER | | |
RESULT*	_____	_____	_____	RESULT |
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS |
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF QUESTIONNAIRE, LANGUAGE OF INTERVIEW, NATIVE :

KHMER LANGUAGE 1

OTHER LANGUAGE _____ 2
(SPECIFY)

USED TRANSLATOR:

YES 1

NO 2

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ | | |	NAME _____ | | |	| |	| |

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____. I am working with the ministry of planning and ministry of health. We are conducting a survey about health all over Cambodia. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions? May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	In what month and year were you born? IF RESPONDENT DOES NOT KNOW GREGORIAN MONTH AND YEAR OF BIRTH, ASK FOR KHMER MONTH AND YEAR. USE DATE CONVERSION CHART. _____ (SPECIFY KHMER MONTH AND YEAR OF BIRTH)	GREGORIAN MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 GREGORIAN YEAR [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 108
105	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 LOWER SECONDARY . . . . . 2 UPPER SECONDARY . . . . . 3 HIGHER 4	
106	What is the highest (grade/form/year) you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE/FORM/YEAR . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	CHECK 105: PRIMARY ☐ SECONDARY OR HIGHER ☐ → 110		
108	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	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED ☐ CODE '1' OR '5' CIRCLED ☐ → 111		
110	Do you read a newspaper or magazine, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112A	Do you access to internet, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	BUDDHIST . . . . . 1 MOSLEM . . . . . 2 CHRISTIAN . . . . . 3 OTHER 4	
115	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
116	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
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 . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . [ ][ ]	
205A	Where do your sons or daughters who do not live with you live?	EXTENDED FAMILY/CAMP . . . . . A NEIGHBOR . . . . . B ORPHANAGE . . . . . C TEMPLE (WAT) . . . . . D OTHER _____ E SPECIFY DON'T KNOW X	
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	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ HAS HAD ONLY ONE CHILD → 212 HAS NOT HAD ANY CHILDREN → 401		
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 . . . . . [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
213	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ☐ ↓ NO LIVING CHILDREN ☐ → 401		
214	How old is your (youngest) child?	AGE IN YEARS . . . . . ☐☐	
215	CHECK 214: (YOUNGEST) CHILD IS AGE 0-2 YEARS ☐ ↓ OTHER ☐ → 401		
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 . . . . . 8 → 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	
220	When a child has diarrhea, how much should he or she be given to drink: more than usual, about the same as usual, less than usual, or nothing to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

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	→ 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	→ 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 other wives or do you live with other women as if married?	YES (MORE THAN ONE) . . . . . 1 NO (ONLY ONE) 2	→ 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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
411	In what month and year did you start living with your (wife/partner)?	GREGORIAN MONTH	
411A	Now I would like to ask about your first (wife/partner). In what month and year did you start living with her?	DON'T KNOW MONTH 98	
	IF RESPONDENT DOES NOT KNOW GREGORIAN DATE ASK FOR KHMER MONTH AND YEAR OF MARRIAGE. USE DATE CONVERSION CHART TO FIND GREGORIAN MONTH AND YEAR.	GREGORIAN YEAR	→ 413
		DON'T KNOW YEAR 9998	
	(SPECIFY KHMER MONTH AND YEAR OF MARRIAGE)		
412	How old were you when you first started living with her?	AGE	
413	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
414	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues.	NEVER HAD SEXUAL INTERCOURSE 00	→ 501
	How old were you when you had sexual intercourse for the very first time?	AGE IN YEARS	
		FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	
415	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.		
416	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	→ 430

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
417	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 [ ][ ]	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 [ ][ ]
418	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)
419	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
420	What was your relationship to this person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 422A)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 422A)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 422A)
421	CHECK 410:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 423)
422	CHECK 414:	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE (SKIP TO 424) OTHER (SKIP TO 423)	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE (SKIP TO 424) OTHER (SKIP TO 423)	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE (SKIP TO 424) OTHER (SKIP TO 423)
422A	Who was the person that you had sexual intercourse in the last 12 months?	BROTHEL-BASED SEX WORKER . . . 1 KARAOKE WORKER 2 BEER PROMOTER . 3 BAR/NIGHT CLUB WORKER . . . . . 4 MASSEUSE . . . . . 5 RESTAURANT WORKER . . . . . 6 STREET-BASED SEX WORKER . . . 7 OTHER_____ 8 (SPECIFY)	BROTHEL-BASED SEX WORKER . . . 1 KARAOKE WORKER 2 BEER PROMOTER . 3 BAR/NIGHT CLUB WORKER . . . . . 4 MASSEUSE . . . . . 5 RESTAURANT WORKER . . . . . 6 STREET-BASED SEX WORKER . . . 7 OTHER_____ 8 (SPECIFY)	BROTHEL-BASED SEX WORKER . . . . . 1 KARAOKE WORKER 2 BEER PROMOTER . . . . 3 BAR/NIGHT CLUB WORKER . . . . . 4 MASSEUSE . . . . . 5 RESTAURANT WORKER . . . . . 6 STREET-BASED SEX WORKER . . . . . 7 OTHER_____ 8 (SPECIFY)

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
423	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4
424	How many times during the last 12 months did you have sexual intercourse with this person?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
425	How old is this person?	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98
426	Apart from (this person/these two people), have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 417 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 427A)	YES . . . . . 1 (GO BACK TO 417 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 427A)	
427	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . . DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
427A	Have you heard of men having sex with men?	YES . . . . . 1 NO 2	→ 428
427B	Have you ever had sex with a man?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
428	CHECK 420 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE ☐↓ NO PARTNERS ARE PROSTITUTES ☐ → 430		
429	CHECK 420 AND 418 (ALL COLUMNS): CONDOM USED WITH EVERY PROSTITUTE ☐ → 433 OTHER ☐ → 434		
430	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 432
431	Have you ever paid anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 434
432	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 434
433	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
434	In the last 12 months, did you ever give money, gifts or favors to anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	
434A	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
435	CHECK 418, MOST RECENT PARTNER (FIRST COLUMN): NOT ASKED ☐ → 438 CONDOM USED ☐↓ NO CONDOM USED ☐ → 438		
436	You told me that a condom was used the last time you had sex. What is the brand name of the condom used at that time? IF BRAND NOT KNOWN, ASK TO SEE THE PACKAGE.	OK . . . . . 01 NUMBER ONE . . . . . 02 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
437	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . . . 13 HEALTH CENTEF . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 OTHER PUBLIC SECTOR _____ 18 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PHARMACY . . . . . 23 OTHER PRIVATE MEDICAL SECTOR _____ 24 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 COMMUNITY DISTRIBUTOR . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 36 (SPECIFY)	
438	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 501
439	What method did you or your partner use? PROBE: Did you or your partner use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E PILL . . . . . F FEMALE CONDOM . . . . . G DIAPHRAGM . . . . . H FOAM/JELLY . . . . . I LAM . . . . . J RHYTHM METHOD . . . . . K WITHDRAWAL . . . . . L OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER		→ 509
502	CHECK 439: MAN NOT STERILIZED MAN STERILIZED		→ 509
503	(Is your (wife/partner)/Are any of your (wives/partners)) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 505
504	Now I have some questions about the future. After the (child/children) you and your (wife(wives)/partner(s)) are expecting now, would you like to have another child, or would you prefer not have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 506 → 509
505	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS COUPLE CAN'T GET PREGNANT . . . . . 3 WIFE (WIVES)/PARTNER(S) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 509
506	CHECK 405: ONE WIFE/ PARTNER MORE THAN ONE WIFE/ PARTNER		→ 508
507	CHECK 503: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 COUPLE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 509
508	How long would you like to wait from now before the birth of (a/another) child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 HE/ALL HIS WIVES/PARTNERS ARE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
509	CHECK 203 AND 205: HAS LIVING CHILDREN ☐↓ NO LIVING CHILDREN ☐↓ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? 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 . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 601 → 601
510	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 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	→ 610
604	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
605	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR 2 ONCE IN A WHILE 3	
606	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
607	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER ☐ ↓ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER ☐ →		612
608	CHECK 606: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐ →		610
609	Who usually decides how the money you earn will be used: you, your (wife/partner), or you and your (wife/partner) jointly?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	
610	Who usually makes decisions about health care for yourself: you, your (wife/partner), you and your (wife/partner) jointly, or someone else?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER _____ 6 SPECIFY	
611	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
613	Do you own any land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
614	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES NO DK	
	If she goes out without telling him?	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 ask him to use condom?	ASK USE CONDOM . 1 2 8	
615	In your opinion, is a parent justified in hitting or beating his son for the following reasons:	YES NO DK	
	If he disobeys?	DISOBEY 1 2 8	
	If he impolite?	IMPOLITE 1 2 8	
	If he has embarrassed the family?	EMBARR. FAMILY . . . 1 2 8	
616	In your opinion, is a parent justified in hitting or beating his daughter for the following reasons:	YES NO DK	
	If she disobeys?	DISOBEY 1 2 8	
	If she impolite?	IMPOLITE 1 2 8	
	If she has embarrassed the family?	EMBARR. FAMILY . . . 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	→ 723
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 get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
709	CHECK 708: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 711
710	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
711	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
712	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 716
713	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 96	
714	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
714A	How often did you have had an HIV test?	ONLY ONCE . . . . . 1 EVERY YEAR . . . . . 2 EVERY 6 MONTHS . . . . . 3 EVERY 3 MONTHS . . . . . 4 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
715	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . 11 PROVINCIAL HOSP (RH) . . . . . 12 DISTRICT HOSPITAL (RH) . . . 13 HEALTH CENTER . . . . . 14 HEALTH POST . . . . . 15 OUTREACH . . . . . 16 MILITARY HOSPITAL . . . . . 17 VCCT CENTER 18 PMTCT SITE 19 OTHER PUBLIC SECTOR _____ 20 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 21 PRIVATE CLINIC . . . . . 22 PRIVATE LABORATORY . . . 23 OTHER PRIVATE MEDICAL SECTOR _____ 24 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 718
716	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 718
717	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTEF . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G VCT CENTER . . . . . H PMTCT SITE . . . . . I OTHER PUBLIC _____ J (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . K PRIVATE CLIN . . . . . L PRIVATE LABORAT . . . . . M OTHER PRIVATE MEDICAL SECTOR _____ N (SPECIFY) OTHER _____ X (SPECIFY)	
718	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
719	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
720	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
721	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
722	Do you personally know someone who has been denied health services in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 8	
722A	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	
722B	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	
723	CHECK 701: HEARD ABOUT AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
724	CHECK 414: HAS HAD SEXUAL INTERCOURSE HAS NOT HAD SEXUAL INTERCOURSE → 732		
725	CHECK 723: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES NO → 727		
726	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	
727	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	
728	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	
729	CHECK 726, 727, AND 728: HAS HAD AN INFECTION (ANY 'YES') HAS NOT HAD AN INFECTION OR DOES NOT KNOW → 732		
730	The last time you had (PROBLEM FROM 726/727/728), did you seek any kind of advice or treatment?	YES . . . . . 1 NO . . . . . 2 → 732	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
731	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR NATIONAL HOSPITAL (PP) . . . . . A PROVINCIAL HOSP (RH) . . . . . B DISTRICT HOSPITAL (RH) . . . . . C HEALTH CENTEF . . . . . D HEALTH POST . . . . . E OUTREACH . . . . . F MILITARY HOSPITAL . . . . . G OTHER PUBLIC . . . . . SECTOR _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J PHARMACY . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M FRIEND/RELATIVE . . . . . N OTHER _____ X (SPECIFY)	
732	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	
733	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
805	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 808
806	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 808
807	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 810
809	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES . . . . . ☐☐	
810	Do you currently smoke or use any (other) type of tobacco?	YES . . . . . 1 NO 2	→ 812
811	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
812	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 814
813	What type of health insurance are you covered by? RECORD ALL MENTIONED.	HEALTH EQUITY FUND . . . . . A COMMUNITY-BASED HEALTH INSURANCE . . . . . B HEALTH INSURANCE THROUGH EMPLOYER . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE D OTHER _____ X (SPECIFY)	
814	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____